PART II

MASTER PLAN

CHAPTER 7

BRIDGE CONDITION SURVEY AND DESIGN PRESUMPTION

VISUAL INSPECTION REPORT (2/5)
SUMMARY

					Date of Inspection	Dec. 13, 14, 19, 20, 2002
					Inspector	CT Arenas
Name of Bridge : Pa1.1 Delpan Bridge (Upstream)					Checker	LG Sta. Maria

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
1	1	RAILING (A1)	PD	S	Painting deterioration	Left and right side railings	Small	Small	5 meters each side	c	-
2	1	RAILING (A1)	FR	M	Fracture	Left and right side railings	Remarkable	Medium	2 Locations	b	-
3	1	RAILING @ Center	PD	S	Painting deterioration	Left and right side railings	Small	Small	3 m. each side	c	-
4	1	RAILING @ Center	FR	M	Fracture	Left and right side railings	Remarkable	Medium	2 Locations	b	-
5	1	RAILING (P1)	PD	S	Painting deterioration	Left and right side railings	Small	Small	4 m. each side	c	-
6	1	RAILING (P1)	FR	M	Fracture	Left and right side railings	Remarkable	Medium	2 Locations	b	-
7	1	CURB	CR	M	Crack	Median curb	0.35 mm	Medium	1 Location	b	-
8	1	SIDEWALK	SER	M	Spalling	Right sidewalk	0.25 m²	Medium	1 Location	b	-
9	1	PAVEMENT (Abutment)	CRPL	M	Local bump	Abutment A1, Carriageway	Concave >30 mm	Medium	1 Location	b	-
10	1	PAVEMENT @ Center	CRPL	M	Cracks	Asphalt concrete deck overlay	6 mm	Medium	Many	b	-
11	1	PAVEMENT (P1)	CRPL	M	Cracks	Pavement along Pier No. 1	8 mm	Medium	Many	b	-
12	1	BOX GIRDER	SER	H	Spalling with Exposed Rebars	Bottom of Girder at Abutment A1	0.50 m²	High	1 Location	a	1, 1a, 1b
13	1	BOX GIRDER	HC	H	Honeycombs	Bottom of Girder, Mid-Span	>2.0 m²	High	1 Location	a	2
14	1	BOX GIRDER	SER	H	Exposed rebars	Bottom of box girder	3.85 m²	High	Wide area	a	3, 4
15	1	BOX GIRDER	CR	S	Crack	Bottom of box girder	Hairline cracks 0.13 mm	Small	Many	b	-
16	1	DRAINAGE SYSTEM (A1)	WLC	M	Clogging	Right side drain hole near Abut. A	Clogged	Medium	Typical	b	5
17	1	DRAINAGE SYSTEM CL	WLC	M	Clogging	Right drain hole at mid span	Clogged	Medium	Typical	b	-
18	1	DRAINAGE SYSTEM P1	WLC	M	Clogging	Right drain hole at mid span	Clogged	Medium	Typical	b	-
19	1	BEARING SHOE (A1)	CO	M	Corrosion	Abutment A1	Spread over Whole shoe	Medium	All bearing shoes	b	6
20	1	BEARING SHOE (P1)	CO	M	Corrosion	Pier No. 1	Spread over Whole shoe	Medium	All bearing shoes	b	7
21	1	ABUTMENT	D/D	M	Discoloration	Abutment A1	Whole abutment wall and backwall	Medium	1 Location	b	8
22	2	RAILING (P1)	PD	S	Painting deterioration	Left and right side railings	Small	Small	15 m each side	c	-
23	2	RAILING (P1)	FR	M	Fracture	Left and right side railings	Remarkable	Medium	1 Location	b	-
24	2	RAILING (P2)	PD	S	Painting deterioration	Left and right side railings	Small	Small	15 m each side	c	-
25	2	SIDEWALK	FR	M	Fracture	Right Sidewalk	Remarkable	Medium	1 Location	b	-
26	2	PAVEMENT @ Center	CRPL	M	Cracks	Asphalt Concrete Overlay	5 mm	Medium	Many	b	-
27	2	PAVEMENT (P2)	CRPL	M	Cracks	Asphalt Concrete Overlay	8 mm	Medium	Many	b	-
28	2	DECK SLAB (sidewalk bottom)	CR	S	Cracks	Bottom of Sidewalk, Right Side	0.05 mm	Small	3 Locations	b	-
29	2	SIDE FACE OF WEB	SER	M	Spalling	Sideface of box girder web	0.15 m²	Medium	1 Location	b	-
30	2	BOTTOM OF BOX GIRDER	CR/SER	S/M	Cracks & Spall	Bottom of box girder	Hairline cracks 0.23 mm	Small to Medium	Many	b	9,10,11
31	2	BOTTOM OF BOX GIRDER	FL/CR	S	Freelime & Cracks	Bottom of box girder	0.05 mm	Small	Many	b	12, 13
32	2	BEARING SHOE	CO	S	Corrosion	Pier No. 2	Traces of corrosion on steel bearing shoes	Small	Typical	b	14
33	2	BEARING SHOE (PAD)	SER	S	Spalling	Pier No. 2, Concrete Riser	0.08 m²	Small	1 Location	b	-
34	2	PIER BODY	CR	M/S	Cracks	Pier No. 2, Wall	0.6 mm	Small to Medium	Many	b	15,16
35	2	FOUNDATION (CAP)	SER	M	Exposed rebars	Footing cap	1.5 m²	Medium	2 locations	b	17, 18
36	3	RAILING (GERBER)	PD	S	Paint deterioration	Left and right side railing	Small	Small	20 meters each side	c	-
37	3	RAILING @ Center	PD	S	Paint deterioration	Mid-span, left and right side	Small	Small	20 m each side	c	-
38	3	RAILING @ Center	FR	M	Fracture	Mid-span, left and right side	Remarkable	Medium	2 Locations	b	-
39	3	RAILING (GERBER)	PD	S	Paint deterioration	Left and right side railings	Small	Small	15 m each side	c	-
40	3	RAILING (GERBER)	FR	M	Fracture	Left and right side railings	Remarkable	Medium	2 Locations	b	-
41	3	RAILING (P3)	PD	S	Paint deterioration	Railing over pier No. 3	Small	Small	2 meters each side	c	-
42	3	RAILING (P3)	FR	M	Fracture	Railings left and right side	Remarkable	Medium	1 Location	b	-
43	3	SIDEWALK	SER	M	Spalling	Right sidewalk	0.30 m²	Medium	2 Locations	b	-
44	3	PAVEMENT (P2)	CRPL	M	Cracks	Asphalt concrete overlay	6 mm	Medium	Many	b	-
45	3	PAVEMENT (GERBER)	CRPL	M	Cracks	Asphalt concrete overlay	>5 mm	Medium	Many	b	-
46	3	PAVEMENT (GERBER)	CRPL	M	Cracks	Asphalt concrete overlay	8 mm	Medium	Many	b	-
47	3	PAVEMENT (P3)	CRPL	M	Cracks	Asphalt concrete overlay	10 mm	Medium	Many	b	-
48	3	DECK SLAB (Sidewalk Bottom)	CR	S	Cracks	Bottom of Sidewalk, Right Side	Hairline cracks 0.05 mm	Small	Many	b	19
49	3	SIDE FACE OF WEB	SER	M	Spalling	Sideface of box girder web	0.3 m²	Medium	1 Location	b	20
50	3	BOTTOM OF BOX GIRDER (Center)	SER	M	Spalling and exposed rebars	Bottom of box girder	0.25 m²	Medium	Many	b	21,22,23
51	3	BOTTOM OF BOX GIRDER (GERBER)	SER	H	Exposed rebars	Bottom of box girder	0.5 m²	High	Many	a	24, 25
52	3	EXPANSION JOINT (GERBER)	M/I/S/D	M	Movement and settlement	Expansion joint gerber Hinge No. 1	Remarkable	Medium	Whole joint	b	26, 27
53	3	EXPANSION JOINT (GERBER)	SER	H	Exposed rebars	Gerber Hinge No. 1	>0.3 m²	High	2 Locations	a	28, 29
54	3	EXPANSION JOINT (GERBER)	SER	H	Exposed rebars	Gerber Hinge No. 2	0.35 m²	High	3 Locations	a	30, 31, 32
55	3	BEARING SHOE (P3)	CO	S	Corrosion	Pier No. 3	Traces of corrosion on steel bearing shoes	Small	Typical	b	33
56	3	PIER BODY (P3)	CR	M	Cracks	Pier No. 3 Wall	0.4 mm wide	Medium	Many	b	34
57	3	FOUNDATION P3 CAP	SER	M	Exposed rebars	Footing cap	1.2 m²	Medium	1 Location	b	35
58	4	RAILING @ Center	PD	S	Paint deterioration	Mid-span	Small	Small	5 m	c	-
59	4	RAILING (P4)	PD	S	Paint deterioration	Right side railings	Small	Small	3 m	c	-
60	4	RAILING (P4)	FR	M	Fracture	Left and Right Side Railings	Remarkable	Medium	2 Locations	b	-
61	4	SIDEWALK (BOTTOM SLAB)	CR	S	Cracks	Sidewalk bottom slab	<0.2 mm	Small	Many	b	36

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
						Description of Damage					
62	4	PAVEMENT @ Center	CRPL	M	Cracks	Asphalt concrete overlay	7 mm	Medium	Many	b	-
63	4	PAVEMENT (P4)	CRPL	M	Cracks	Asphalt concrete overlay	>5 mm	Medium	Many	b	-
64	4	BOTTOM OF BOX GIRDER (P4)	CR	S	Cracks	Bottom of box girder	0.13 mm	Small	Many	b	37, 38
65	4	BOTTOM OF BOX GIRDER (P4)	FL	M	Freetime	Bottom of box girder	0.25 m²	Medium	Many	b	-
66	4	BEARING SHOE	CO	M	Corrosion	Pier No. 4	Spread over Whole bearing shoe	Medium	All bearing shoes	b	-
67	5	RAILING @ Center	PD	S	Paint deterioration	Mid-span, left and right side	Small	Small	10 m	c	-
68	5	RAILING (A2)	PD	S	Paint deterioration	End of the span right side	Small	Small	10 m	c	-
69	5	RAILING (A2)	FR	M	Fracture	Railings	Remarkable	Medium	2 Locations	b	-
70	5	CURB	FR	M	Fracture	Medium curb	Remarkable	Medium	1 Location	b	-
71	5	SIDEWALK	SER	M	Spalling	Sidewalk	0.15 m²	Medium	1 Location	b	-
72	5	CURB & GUTTER	SER	M	Spalling	Curb and gutter	0.25 m²	Medium	1 Location	b	-
73	5	PAVEMENT @ Center	CRPL	M	Cracks	Asphalt concrete overlay	5 mm	Medium	Many	b	-
74	5	PAVEMENT A2	CRPL	M	Cracks	Asphalt concrete overlay	8 mm	Medium	Many	b	-

Date of Inspection   Dec. 13, 14, 19, 20, 2002
Inspector   CT Arenas
Checker   LG Sta. Maria

Name of Bridge : Pa1.2 Delpan Bridge (Downstream)

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
						Description of Damage					
1	1	RAILING (℄)	CR	S	Cracks	Railing, Left Side	0.13 mm	Small	2 Locations	b	-
2	1	RAILING (P3)	CR	S	Cracks	Railing, Left Side	0.15 mm	Small	1 Location	b	-
3	1	SIDEWALK	SER	M	Spalling	Sidewalk, Left Side	0.25 m²	Medium	1 Location	b	-
4	2	SIDEWALK	EJ	S	Expansion Joint Separation	Sidewalk, Left Side	Small	Small	1 Location	b	-
5	2	CURB & GUTTER	EJ	S	Expansion Joint Separation	Curb & Gutter	Small	Small	1 Location	b	-
6	2	BOT. OF BOX GIRDER	CR	S	Cracks	Bottom of Box Girder	<0.2 mm	Small	Many	b	1, 2
7	2	PIER BODY	SER	M	Exposed Rebars	Pier No. 2	1.5 m²	Medium	1 Location	b	3
8	2	PIER BODY	SER	M	Spalling	Pier No. 2	2.0 m²	Medium	1 Location	b	4
9	3	DECK SLAB (SW BOT)	CR	S	Cracks	Bottom of Sidewalk	0.12 mm	Small	Many	b	5
10	3	SIDE FACE OF WEB	CR	S	Cracks	Sideface of Web of Box Girder	0.10 mm	Small	3 Locations	b	6
11	4	RAILING P4	CR	S	Cracks	Railing, Left Side	0.23 mm	Small	1 Location	b	-
12	4	BOT. OF BOX GIRDER	CR	S	Cracks	Bottom of Box Girder	0.15 mm	Small	5 Locations	b	7

Date of Inspection   Dec. 10 - 13, 2002
Inspector   CT Arenas
Checker   LG Sta. Maria

Name of Bridge : Pa3 McArthur Bridge

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
						Description of Damage					
1	1	RAILING	Def	S	Deformation	Right Side Handrail		Small	1	c	-
2	1	SIDEWALK	SER	S	Spalling	Right Side Sidewalk	0.08 m²	Small	1	c	-
3	1	DECK SLAB	CR	S	Cracks	Bottom of deck	<0.3 mm	Small	Many	b	1
4	1	DECK SLAB	SER	M	Spall with Exposed Rebars	Bottom of deck	0.2 m²	Medium	2	b	2
5	1	DECK SLAB	CR	S	Cracks	Bottom of deck	<0.3 mm	Small	Many	b	-
6	1	RIVETS	M	H	Missing	Bottom Flange of Steel Girders	9 pieces	High	Many	a	3a
7	1	WELDED PORTION OF STEEL PLATE	Def	H	Deformation	Girder Bottom Flange Splice Plate	Remarkable	High	4	a	3
8	1	MAIN GIRDER	Def	H	Deformation	Bottom Flange of Outside Girder	Remarkable	High	1	a	3
9	1	EXPANSION JOINT	NO	M	Noise	Expansion Joint Steel Plate Atop Carriageway	Loose Connection	Medium	1	b	-
10	1	BEARING SHOE (A1)	CO	S	Corrosion	Abutment No.1	Whole Shoe	Small	All bearing shoes	b	4
11	1	BEARING SHOE (P1)	CO	S	Corrosion	Pier No. 1	Whole Shoe	Small	All bearing shoes	b	5
12	1	UTILITIES (A1)	CO	M	Corrosion	Abutment No.1, Utility Steel Ducts	Remarkable	Small	2 Locations	b	6
13	1	UTILITIES (A1)	D/D	M	Deterioration	Abutment No. 1 Utility Ducts	Remarkable	Medium	1	b	7
14	1	FOUNDATION (PIER CAP)	SER	S	Exposed Rebars	Pier No. 1 Foundation	0.2 m²	Small	1 location	c	-
15	2	CURB (℄)	SER	S	Spalling	Centerline Concrete Curb	<0.1 m²	Small	1	c	-
16	2	CURB (P2)	SER	S	Spalling	Centerline Curb	<0.1 m²	Small	1	c	-
17	2	SIDEWALK	SER	S	Spalling	Sidewall, rightside	0.05 m²	Small	1	c	-
18	2	DECK SLAB	CR	S	Cracks	Bottom of deck slab	<0.3 mm	Small	2 Locations	b	8, 9
19	2	DECK SLAB	HC	M	Honeycombs	Bottom of deck	0.1 m²	Medium	3 Locations	b	10, 11
20	2	DECK SLAB	SER	M	Spall with Exposed Rebars	Bottom of deck	<0.3 m²	Medium	1	b	12
21	2	BOLT (RIVETS)	M	H	Missing	Bottom Flange of Steel Girder	Dangerous >200 pieces	High	1 Girder	a	13
22	2	MAIN GIRDERS	D/CO	H	Deformation/ Corrosion	Bottom Flange of Steel Girder, Out of Alignment	Dangerous	High	7 Girders	a	14
23	2	MAIN GIRDERS	D/CO	H	Deformation/ Corrosion	Girder Bottom Flange and web	tmax = 15 mm reduced tmin= 10 mm	High	7 Girders	a	15, 16
24	2	SWAY BRACINGS	M	M	Missing	Sway Brace Bottom Members	2 pieces	Medium	2 Locations	b	17
25	2	BEARING SHOE	CO	S	Corrosion	Pier No. 2	Whole Shoe	Small	7 Bearing Shoes	b	18
26	2	BEARING SHOE	BM	S	Bearing Shoe Movement	Pier No. 2		Small	7 Bearing Shoes	b	19
27	2	UTILITIES	D/D	H	Deterioration	Bottom of Sidewalk	Remarkable	High	Many	a	20
28	2	PIER COPING	SER	S	Spalling	Pier No. 2	0.2 m²	Small	1 Location	c	21
29	2	PIER BODY	SER	S	Spalling with Exposed Rebars	Pier No. 2	0.2 m²	Small	1	c	22

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
30	3	SIDEWALK	SER	S	Spalling	Left Sidewalk	0.15 m²	Small	1 Location	c	-
31	3	DECK SLAB	HC	M	Honeycomb	Bottom of Deck Slab	0.30 m²	Medium	1	b	23
32	3	MAIN GIRDERS	CO	S	Corrosion	Girder Bottom Flange and web	Rust Spots	Small	Many	c	-
33	3	SWAY BRACINGS	CO	H	Corrosion	Sway Brace Members	Rust Spread over Whole Area	High	4 Locations	a	24
34	3	EXPANSION JOINT	NO	M	Noise	Expansion Joint Steel, Plate Over the Carriageway	Loose Connection	High	1	b	-
35	3	BEARING SHOE	CO	S	Corrosion	Abutment No. 2	Whole Shoe	Small	All Bearing Shoes	b	25
36	3	ABUTMENT	SER	H	Spalling and Exposed Rebars	Abutment No. 2, Wall	Abutment No. 2 Wall 3.5 m²	High	1 Location	a	26

Name of Bridge : Pa4 Quezon Bridge

Date of Inspection Nov. 27, 28, Dec. 2-5, 12-14, 16,18, 2002
Inspector CT Arenas
Checker LG Sta. Maria

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
1	1	BOLTS	CO	M	Corrosion	Joint No. B7 and at Mid-span	Remarkable	High	Many	a	1, 1a
2	1	BOLTS	M	M	Missing	Joint No. B7 and at Mid-span	7- φ16	High	Many	a	
3	1	STEEL PLATE (BOLTED)	CO	H	Corrosion	Joint A9	Remarkable	High	Whole Plate	a	2, 2a
4	1	VERTICAL MEMBERS	CO	S	Corrosion	Joint B12	Surface Spots	Small	Small	c	3, 3a
5	1	TIE	CO	H	Corrosion	Joint B9	max. bf = 75 mm min. bf = 45 mm	High	Numerous	a	4, 4a
6	1	CROSS BEAM/JOINT C8	CO	H	Corrosion	Cross Beam, Joint C8, End of Lateral Bracing	Remarkable	High	1	a	5
7	1	STRINGER	CO	H	Corrosion	Stringer of Sidewalk	Remarkable	High	1 Location	a	6, 6a
8	1	LATERAL BRACING (JOINT C9)	CO	H	Corrosion	Lateral Bracing (Joint C9)	Remarkable	High	1 Location	a	7
9	1	ABUTMENT (ANCHORAGE)	CO	H	Corrosion	Anchor Plate at Abutment A	Reduction of surface area by, 100 mm dia.	High	1	a	8
10	1	ABUTMENT	M	S	Missing	Rivet	1 pc.	Small	1 bolt	b	9
11	1	ABUTMENT BACKWALL	CR	S	Cracks	Abutment Backwall	Hairline Cracks	Small	Many	b	-
12	1	JOINT A3	CO	H	Corrosion	Joint A3	max. t = 10 mm min. t = 8 mm	High	Whole Plate	a	10
13	1	JOINT B3	CO	H	Corrosion	Joint B3	Remarkable	High	Whole Plate	a	-
14	1	JOINT C3	CO	H	Corrosion	Joint C3	Remarkable	High	Whole Plate	a	-
15	1	JOINT A4	CO	H	Corrosion	Joint A4	Remarkable	High	Whole Plate	a	
16	1	JOINT B4	CO	H	Corrosion	Joint B4	Remarkable	High	Whole Plate	a	11
17	1	JOINT C4	CO	M	Corrosion	Joint C4	Remarkable	Medium	Whole Plate	b	-
18	1	JOINT A5	CO	H	Corrosion	Joint A5	Remarkable	High	Whole Plate	a	-
19	1	JOINT B5	CO	M	Corrosion	Joint B5	Remarkable	Medium	Whole Plate	b	-
20	1	JOINT C5	CO	H	Corrosion	Joint C5	max. t = 10 mm min. t = 7 mm	High	Whole Plate	a	12, 12a
21	1	JOINT A6	CO	H	Corrosion	Joint A6	Remarkable	High	Whole Plate	a	-
22	1	JOINT B6	CO	M	Corrosion	Joint B6	Remarkable	Medium	Whole Plate	b	-
23	1	JOINT C6	CO	H	Corrosion	Joint C6	Remarkable	High	Whole Plate	a	13
24	1	JOINT A7	CO	M	Corrosion	Joint A7	Remarkable	Medium	Whole Plate	b	-
25	1	JOINT B7	CO	M	Corrosion	Joint B7	Remarkable	Medium	Whole Plate	b	-
26	1	JOINT C7	CO	H	Corrosion	Joint C7	max. t = 10 mm min. t = 6 mm	High	Whole Plate	a	14, 15
27	1	JOINT A8	CO	H	Corrosion	Joint A8	Remarkable	High	Whole Plate	a	-
28	1	JOINT B8	CO	M	Corrosion	Joint B8	Remarkable	Medium	Whole Plate	b	-
29	1	JOINT C8	CO	H	Corrosion	Joint C8	max. t = 10 mm min. t = 6.5 mm	High	Whole Plate	a	16
30	1	JOINT A9	CO	H	Corrosion	Joint A9	Remarkable	High	Whole Plate	a	-
31	1	JOINT B9	CO	M	Corrosion	Joint B9	Remarkable	Medium	Whole Plate	b	-
32	1	JOINT C9	CO	H	Corrosion	Joint C9	max. bf = 75 mm min. bf = 50 mm	High	1 Joint	a	17
33	1	JOINT A10	D/CO	H	Deterioration/ Corrosion	Joint A10	Remarkable	High	Whole Plate	a	19, 19a
34	1	JOINT B10	CO	H	Corrosion	Joint B10	Remarkable	High	Whole Plate	a	-
35	1	JOINT C10	CO	H	Corrosion	Joint C10	max. t = 10 mm min. t = 8 mm	High	Whole Plate	a	18
36	1	JOINT A11	D/CO	H	Deterioration/ Corrosion	Joint A11	max. t = 10 mm min. t = 7.5 mm	High	1 Whole Plate	a	20, 20a, 21
37	1	JOINT B11	CO	H	Corrosion	Joint B11	Remarkable	High	Whole Plate	a	-
38	1	JOINT C11	CO	H	Corrosion	Joint C11	Remarkable	High	Whole Plate	a	-
39	1	JOINT A12	CO	H	Corrosion	Joint A12	max. t = 10 mm min. t = 8.5 mm	High	Whole Plate	a	22, 22a
40	1	JOINT B12	D/CO	H	Deterioration/ Corrosion	Tie @ Joint B12	max. bf = 75 mm min. bf = 65 mm	High	Both Ends	a	23
1	1	JOINT C12	CO	H	Corrosion	Joint C12	Remarkable	High	Whole Plate	a	-
2	1	JOINT A13	CO	H	Corrosion	Joint A13	max. t = 10 mm min. t = 8.5 mm	High	Whole Plate	a	24, 24a
3	1	JOINT B13	CO	M	Corrosion	Joint B13	Remarkable	Medium	Whole Plate	b	-
4	1	JOINT C13	CO	H	Corrosion	Joint C13	Remarkable	High	Whole Plate	a	-
5	1	JOINT A14	CO	H	Corrosion	Tie @ Joint A14	max. bf = 75 mm min. bf = 60 mm	High	Both Ends	a	25
6	1	JOINT B14	CO	H	Corrosion	Joint B14	Remarkable	High	Whole Plate	a	-
7	1	JOINT C14	CO	H	Corrosion	Joint C14	max. t = 10 mm min. t = 9 mm	High	Whole Plate	a	26
8	1	JOINT A15	CO	H	Corrosion	Joint A15	max. t = 10 mm min. t = 8 mm	High	Whole Plate	a	27
9	1	JOINT B15	CO	M	Corrosion	Joint B15	Remarkable	Medium	Whole Plate	b	-
10	1	JOINT C15	CO	H	Corrosion	Joint C15	Remarkable	High	Whole Plate	a	-

Name of Bridge : Pa5 Nagtahan Bridge

Date of Inspection Dec. 10 - 12, 2002
Inspector CT Arenas
Checker LG Sta. Maria

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
1	1	RAILING (A1)	Def/M	S	Deformation	Railing, Left Side	1 - Member	Small	1 Location	c	-
2	1	RAILING (Ċ)	Def/M	S	Deformation	Railing, Left Side	1 - Member	Small	1 Location	c	-

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
3	1	RAILING (P1)	L/M	S	Missing	Railing, Left Side	2 Bolts	Small	1 Location	c	1
4	1	CURB (A1)	SER	S	Spalling	Sidewalk Curb	< 0.10 m²	Small	1 Location	c	2
5	1	CURB (₵)	EJ	M	Expansion Joint Separation	Sidewalk Curb	Abnormal Gap	Medium	1 Location	b	-
6	1	CURB (P1)	EJ	M	Expansion Joint Separation	Sidewalk Curb	Abnormal Gap	Medium	1 Location	b	-
7	1	SIDEWALK (A1)	CR	S	Cracks	Sidewalk	0.15 mm	Small	1 Location	c	-
8	1	SIDEWALK (₵)	CR	S	Cracks	Sidewalk	0.2 mm	Small	1 Location	c	-
9	1	SIDEWALK (P1)	SER	S	Spalling	Finish @ Sidewalk	1.5 m²	Small	1 Location	c	3
10	1	CURB & GUTTER (A1)	CR	S	Cracks	Curb and Gutter	0.1 mm	Small	1 Location	c	-
11	1	CURB & GUTTER (₵)	CR	S	Cracks	Curb and Gutter	0.3 mm	Small	1 Location	c	4
12	1	CURB & GUTTER (P1)	CR	S	Cracks	Curb and Gutter	0.25 mm	Small	1 Location	c	-
13	1	PAVEMENT	CRPL	S	Local Bump	Pavement Bridge Approach	Concave 30 mm	Small	1 Location	c	-
14	1	MEDIAN STRIP	SER	S	Exposed Rebars	Median Strip	< 0.1 m²	Small	1 Location	c	-
15	1	SURFACE OF DECKSLAB	SER	M	Exposed Rebars	Bottom Surface of Deck Slab	0.2 m²	Medium	1 Location	b	5
16	1	BOLT	M	S	Missing	Bolt Nut (Girder No. 9) Abut A	1 pc.	Small	1 Location	c	6
17	1	BOTTOM CHORD	CO	S	Corrosion	Bottom Chord, Girder No. 1	Surface Spots	Small	1 Location	c	7
18	1	VERTICAL MEMBER	DEF	S	Deformation	Vertical Member	Small	Small	1 Location	c	8
19	1	DIAGONAL MEMBER	CO	S	Corrosion	Diagonal Member	Surface Spots	Small	Many	c	9
20	1	LATERAL BRACING	CO	S	Corrosion	Lateral Bracing	Surface Spots	Small	Many	b	10
21	1	EXPANSION JOINT	EJ	M	Expansion Joint Separation	Abutment A	Remarkable	Medium	1 Location	b	11
22	1	UTILITIES	CO	H	Corrosion	Abutment A	Remarkable	High	1 Location	a	12
23	1	PIER A1 BACKWALL	SER	S	Spalling and Exposed Rebars	Abutment-Pier P1 Backwall	<1.0 m²	Small	1 Location	c	13
24	1	PIER A1 BACKWALL	HC	S	Honeycombs	Abutment-Pier P1 Backwall	0.1 m²	Small	1 Location	c	14
25	1	PIER BODY *	CR	M	Cracks	Pier No. 1	0.5 mm	Medium	1 Location	b	15, 15a, 15b
26	1	PIER BODY	SER	M	Spalling and Exposed Rebars	Pier No. 1	1.0 m²	Medium	1 Location	b	16
27	1	PIER A1 LOWER BODY	SER	M	Exposed Rebars	Pier No. 1	1.2 m²	Medium	1 Location	b	17
28	2	RAILING	D/M	S	Deformation	Railings	1 pc.	Small	1 Location	c	-
29	2	CURB (₵)	CR	S	Cracks	Sidewalk Curb	0.15 mm	Small	1 Location	c	-
30	2	CURB (P2)	CR	S	Cracks	Sidewalk Curb	0.23 mm	Small	1 Location	c	-
31	2	SIDEWALK (₵)	CR	S	Cracks	Sidewalk	0.12 mm	Small	1 Location	c	-
32	2	SIDEWALK (P2)	CR	S	Cracks	Sidewalk	0.26 mm	Small	1 Location	c	-
33	2	CURB & GUTTER (₵)	CR	S	Cracks	Curb and Gutter	0.1 mm	Small	1 Location	c	-
34	2	CURB & GUTTER (P2)	CR	S	Cracks	Curb and Gutter	0.13 mm	Small	1 Location	c	-
35	2	WELDED PORTION OF ST. PL	CO	S	Corrosion	Welded Portion of Steel Plate	Surface Spots	Small	1 Location	c	-
36	2	BOTTOM CHORD (₵)	CO	M	Corrosion	Bottom Chord	Whole Member	Medium	Many	b	-
37	2	VERTICAL MEMBER (₵)	CO	S	Corrosion	Vertical Members	Small	Small	Many	c	-
38	2	VERTICAL MEMBER (P2)	CO	M	Corrosion	Vertical Members	Whole Member	Medium	Many	b	-
39	2	DIAGONAL MEMBER (₵)	CO	S	Corrosion	Diagonal Members	Small	Small	Many	c	-
40	2	DIAGONAL MEMBER (P2)	CO	S	Corrosion	Diagonal Members	Surface Spots	Small	Many	c	-
41	2	LATERAL BRACING (₵)	CO	M	Corrosion	Lateral Bracings	Whole Member	Medium	Many	b	18
42	2	LATERAL BRACING (P2)	CO	M	Corrosion	Lateral Bracings	Whole Member	Medium	Many	b	-
43	2	PIER BODY	CR	M	Cracks	Pier No. 2	0.5 mm	Medium	1 Location	b	19
44	2	PIER A2 LOWER BODY	SER	M	Exposed Rebars	Footing, Pier No. 2	1.0 m²	Medium	1 Location	b	20
45	3	RAILING	Def/M	S	Deformation	Railings	1 pc.	Small	1 Location	c	-
46	3	CURB (₵)	CR	S	Cracks	Sidewalk Curb	0.25 mm	Small	1 Location	c	-
47	3	CURB (A2)	CR	S	Cracks	Sidewalk Curb	0.13 mm	Small	1 Location	c	-
48	3	SIDEWALK (₵)	CR	S	Cracks	Sidewalk	0.10 mm	Small	1 Location	c	-
49	3	SIDEWALK (A2)	CR	S	Cracks	Sidewalk	0.12 mm	Small	1 Location	c	-
50	3	CURB & GUTTER (₵)	CR	S	Cracks	Curb and Gutter	0.3 mm	Small	1 Location	c	-
51	3	CURB & GUTTER (A2)	CR	S	Cracks	Curb and Gutter	0.23 mm	Small	1 Location	c	-
52	3	BOLT	M	S	Missing	Girder No. 9 @ Abutment B	1 pc.	Small	1 Location	c	-
53	3	DEFORMED VERTICAL	Def	S	Deformation	Vertical Member	Small	Small	1 Location	c	21
54	3	PIER A2	SER	M	Spalling	Abutment-Pier 2	1.5 m²	Medium	1 Location	b	22

Date of Inspection   Feb. 17-21, 2003
Inspector   AA Salvador / FAG Valderrama
Checker   CT Arenas

Name of Bridge : Pa5 Nagtahan Bridge (Approach Spans)

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
1	1	LIGHTING POST	M	S	Missing	Lighting Post @ Span 1 (Downstream)	1 piece	Small	1 Location	c	1
2	1	PAVEMENT	CRPL	S	Rutting of Asphalt	Near Abut. 1 (Upstream)	Concave and Convex 35 mm	Medium	Whole Width	c	2
3	1	BOTTOM OF DECK SLAB	HC	M	Honeycomb	Whole Span @ (G8)	A=1.45m² (max.)	Medium	Typical @ Girder No. 8 (whole span)	b	3
4	1	END DIAPHRAGM	HC	M	Honeycomb	Honeycomb @ End Diaphragm bet. G9-G10	A=1.25 m²	Medium	1 Location	c	4
5	1	INTERMEDIATE DIAPHRAGM	HC / SER	S / S	Honeycomb	Honeycomb w/ exposed RSB @ Int. Diaphragm bet. G11-G12	A=0.15 m² / A=0.1m²	Small	1 Location	c	5
6	2	BOTTOM OF DECK SLAB	HC	S	Honeycomb	Honeycomb bet. G3-G4 (Upstream)	A=0.30 m²	Small	1 Location	c	6
7	3	BOTTOM OF DECK SLAB	HC	S	Honeycomb	Honeycomb bet. G2-G3 (Upstream)	A=0.10 m²	Small	1 Location	c	7
8	3	INTERMEDIATE DIAPHRAGM	HC	S	Honeycomb	Honeycomb bet. G2-G3 (Upstream)	A=0.20 m²	Small	1 Location	c	8
9	3	PIER COPING	HC / SER	S / S	Honeycomb w/ Exposed RSB	Bottom of Coping No. 3	A=0.15 m2 / A=0.10m²	Small	1 Location	c	9
10	3	PIER COPING	CR	S	Cracks	Cracks @ bot. and face of coping no. 3	W=0.07 mm	Small	2 Locations	c	10

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
11	3	PIER COLUMN	HC	S	Honeycomb	Pier 3, col. 1 and col. 2	0.7 m² / 0.68 m²	Small	2 Locations	c	11, 11a
12	4	BOTTOM OF GIRDER	HC	S	Honeycomb	Bottom of Girder No. 8	A=0.20 m²	Small	1 Location	c	12
13	4	PIER COPING	HC	S	Honeycomb	Bottom of Coping No. 4	A=0.30 m²	Small	1 Location	c	13
14	4	PIER COPING	HC	S	Cracks	Cracks @ bot. and face of coping no. 4	W=0.04 mm	Small	2 Locations	c	14
15	5	PIER COPING	CR	S	Vertical Cracks	Cracks below G9-G13, P5	0.18 to 0.3 mm	Small	Many	c	15, 15a
16	5	PIER COLUMN	CR	S	Horizontal Cracks	Cracks @ col. 2, Pier 5	W=0.30 mm	Small	Many	c	16
17	6	PIER COPING	CR	S	Vertical Cracks	Cracks @ coping near col. 3, P6	W=0.08 mm	Small	2 Locations	c	17
18	6	PIER COLUMN	SER	S	Spalling	Concrete Spalling @ Col. 3, P6	A=0.35 m²	Small	1 Location	c	18
19	6	PIER COLUMN	CR	S	Horizontal Cracks	Cracks @ col. 2, Pier 6	W=0.30 mm	Small	Many	c	19
20	7	PIER COLUMN	SER	S	Spalling w/ Exposed Rebars	Pier 7, col. 1 body	A=0.5 m²	Small	1 Location	c	20
1	8	RAILING	M	S	Missing	Downstream side, 5.40 m from P8	1 piece	Medium	1 Location	b	21
2	8	CURB & GUTTER	SER	S	Spalling of Concrete	Spall of concrete @ curb near P8	A=0.09 m²	Small	1 Location	c	22
23	8	EXPANSION JOINT	EJ	M	Expansion joint Separation	Expansion @ pier no. 8	Gap=70 mm	Medium	Both Sides	b	23
24	13	FALL DOWN PREVENTION DEVICE (SK)	SER	S	Spalling w/ Exposed Rebars	Shear key bet. G15-G16 (US)	A=0.06 m²	Small	1 Location	c	24
25	13	PIER COPING	SER	S	Spalling of Concrete	Spalling of concrete @ coping no. 13	A=0.60 m²	Small	1 Location	c	25
26	13	PIER COLUMN	HC	S	Honeycomb	Honeycomb @ top of col. 1, pier no. 13	A=0.65 m²	Small	1 Location	c	26
27	14	BOTTOM OF DECK SLAB	SER	S	Spalling of Concrete	Spalling @ bot. of deck slab bet. G7-G8	A=0.40 m²	Small	1 Location	c	27
28	14	BOTTOM OF GIRDER	HC	S	Honeycomb	Honeycomb @ bot. of G9 (DS)	A=0.30 m²	Small	2 Locations	c	28
29	14	END DIAPHRAGM	HC	S	Honeycomb	Honeycomb @ end diaphragm, bet. G11-G12	A=0.20 m²	Small	1 Location	c	29
30	14	INTERMEDIATE DIAPHRAGM	SER	S	Spalling/Exposed Rebars	Exposed RSB @ int. diaphragm bet. G12-G13	A=0.18 m²	Small	1 Location	c	30
31	14	INTERMEDIATE DIAPHRAGM	HC	S	Honeycomb	Typical honeycomb of int. diaphragm from G5 to G8	A=0.15 m²	Small	1 Location	c	31
32	14	PIER COPING	SER	S	Spalling/ Exposed RSB	Spalling with exposed RSB @ coping no. 14	A=0.05 m²	Small	1 Location	c	32
33	14	PIER COLUMN	CR	S	Vertical Cracks	Typical cracks @ all columns @ pier no. 14	W<0.40 mm	Small	4 Locations	c	33
34	14	PAVEMENT	CRPL	S	Rutting of Asphalt	Rutting of asphalt 129.60 m from A2 (DS)	Concave and Convex <30mm	Small	1 Location	c	34
35	15	BOTTOM OF DECK SLAB	CR	H	Horizontal Cracks	Typical cracks @bot. of cantilever deck slab (SW)	W=1.0 mm (max.)	High	Typical from P15 - A2	a	35
36	15	BOTTOM OF GIRDER	CR	M	Horizontal Cracks	Typical cracks @ bot. of Girder No. 1	W=0.20 mm	Medium	Typical from P15 - A2	b	36
37	15	EXPANSION JOINT	EJ	M	Expansion Joint Separation	Expansion @ pier no. 15	Gap = 40 mm	Medium	1 Location	b	37
38	15	PIER COPING	SER	S	Exposed RSB w/ Little Spalling	Exposed RSB with concrete spall @ bot. of coping 15	A=0.24 m²	Small	1 Location	c	38
39	15	PIER COLUMN	SER	S	Spalling/Exposed Rebars	Spalling w/ exposed RSB @ col. 2 & 4 @ pier 15	A=0.18 / 0.075	Small	2 Locations	c	39
40	15	PIER COLUMN	CR	S	Vertical Cracks	Typical cracks @ all columns @ pier 15	W=0.04 mm	Small	4 Locations	c	40
41	16	INTERMEDIATE DIAPHRAGM	HC	S	Honeycomb	Honeycomb @ int. diaphragm bet. G13-G14	A=0.06 m²	Small	1 Location	c	41
42	17	BOTTOM OF GIRDER	SER	S	Spalling w/ Exposed Rebars	Exposed RSB @ G12 (US)	A=0.04 m²	Small	1 Location	c	42
43	19	EXPANSION JOINT	EJ	M	Expansion Separation	Expansion @ pier no. 19	Gap =30 mm	Medium	1 Location	c	43
44	19	PIER COPING	CR	S	Vertical Cracks	Cracks @ coping no. 19	W=0.07 mm	Small	1 Location	c	44
45	19	PIER COPING	SER	S	Spalling/ Exposed Rebars	Exposed RSB @ bot. of coping no. 19	A=0.05 m²	Small	1 Location	c	45
46	21	PIER COPING	CR	S	Vertical Cracks	Vertical cracks @ side of coping no. 21	W=0.04 mm	Small	1 Location	c	46
47	22	PIER COPING	CR	S	Vertical Cracks	Vertical cracks @ side of coping no. 22	W=0.035 mm	Small	1 Location	c	47
48	23	CURB & GUTTER	CR	S	Minor Damaged of Tiles	Typical damaged of tiles	A=1.00m²	Small	Many	c	48
49	23	EXPANSION JOINT	EJ	M	Expansion Joint Separation	Expansion @ abutment 2	Gap =45 mm	Medium	1 Location	c	49

Name of Bridge : Pa6 Pandacan Bridge

Date of Inspection _____ Dec. 6 - 7, 2002 _____
Inspector _____ CT Arenas _____
Checker _____ LG Sta. Maria _____

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	LIGHTING POST	PD	S	Painting Deterioration	Light Post	Surface Splitting of Paint	Small	All	c	-
2	1	DECK SLAB	D/D	M	Discoloration	Bottom of Deck	Remarkable	Medium	Many	b	-
3	2	LIGHTING POST	PD	S	Painting Deterioration	Steel Light Post	Surface Splitting of Paint	Small	All	c	-
4	2	DECK SLAB	D/D	M	Discoloration	Bottom of Deck	Remarkable	Medium	Many	b	1
5	2	BOTTOM OF PC GIRDER	HC	H	Honeycombs	Bottom of PC Girder	0.42 m²	High	2 Locations	a	2
6	2	BOTTOM OF PC GIRDER	SER	S	Exposed Rebars	Bottom of PC Girder	0.06 m²	Small	1	c	3
7	2	END OF PC GIRDER	SER	H	Exposed Rebars	End of PC Girder	0.80 m²	High	1	a	4
8	2	PIER BODY	SER	S	Exposed Rebars	Column Tie Beam, Pier P2	0.45 m²	Small	2	c	5
9	3	LIGHTING POST	PD	S	Painting Deterioration	Light Post	Surface Splitting of Paint	Small	All	c	-
10	3	PAVEMENT	CRPL	S	Cracks	Carriageway	0.35 mm	Small	Many	c	-
11	3	DECK SLAB	CR	M	Cracks	Bottom of Deck	0.3 mm	Medium	Many	b	6
12	3	DECK SLAB	HC	M	Honeycombs	Diaphragm	0.2 m²	Medium	Many	b	-
13	3	PIER BODY	SER	M	Exposed Rebars	Column Tie Beam, Pier P3	1.4 m²	High	2	b	7
14	3	PIER BODY	CR	S	Cracks	Column Tie Beam, Pier P3	0.3 mm	Small	Many	c	-
15	4	LIGHTING POST	PD	S	Painting Deterioration	Light Post	Surface Splitting of Paint	Small	All	c	-
16	4	DECK SLAB	CR	M	Cracks	Bottom of Deck	0.35 mm	Medium	Many	b	8
17	4	SIDE OF PC GIRDER	SER	M	Exposed Rebars	Side of PC Girder	0.25 m²	Medium	1	b	-
18	4	PIER COPING	SER	S	Exposed Rebars	Coping of Pier P4	<0.2 m²	Small	Many	c	9
19	4	PIER BODY	SER	M	Exposed Rebars	Column Tie Beam, Pier P4	1.80 m²	Medium	2	b	10

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
20	4	PIER BODY	CR	M	Cracks	Column Tie Beam, Pier P4	0.33 mm	Medium	2	b	11
21	5	RAILING	M	S	Missing	Right Side Sidewalk	1 pc.	High	2 m	c	-
22	5	LIGHTING POST	PD	S	Painting Deterioration	Light Post	Surface Splitting	Small	All	c	-
23	5	ABUTMENT	CR	M	Cracks	Abutment Coping	0.3 mm	Medium	Many	c	-
24	5	ABUTMENT BACKWALL	CR	M	Cracks	Abutment Backwall	0.3 mm	Medium	Many	c	12

Name of Bridge : Pa7 Lambingan Bridge

Date of Inspection   Dec. 4 - 5, 2002
Inspector   CT Arenas
Checker   LG Sta. Maria

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	PAVEMENT	CRPL	S	Cracks	Roadway	0.3 mm	Small	Many	c	-
2	1	DRAINAGE SYSTEM	D/D	M	Deterioration	Span - 1	Remarkable	Medium	2 Locations	b	-
3	1	BEARING SHOE (PAD)	Def	M	Deformation	Ext. Girder, Bearing Shoe at Abutment A1	Remarkable	Medium	1 Location	b	1a
4	1	ABUTMENT	SER	S	Exposed Rebars	Abutment A1	0.2 m²	Small	1 Location	c	-
5	1	ABUTMENT	CR	S	Cracks	Abutment A1, Wall	0.3 mm	Small	2 places	c	1
6	1	PIER BODY	SER	S	Exposed Rebars	Pier P1	0.2 m²	Small	1	c	2
7	1	PIER BODY	CR	M	Cracks	Pier P1, Wall	0.6 mm	Medium	Many	b	3
8	1	PIER BODY	CR	H	Cracks	Pier P1, Coping	>0.6 mm	Heavy	Many	a	4
9	2	DECK SLAB (BOTTOM OF DIAPHRAGM)	HC	M	Honeycombs	Bottom of Diaphragm	1.2 m²	Medium	3 Locations	b	5
10	2	DECK SLAB (DIAPHRAGM)	CR	M	Cracks	Diaphragm	0.35 mm	Medium	Many	b	6
11	2	DECK SLAB (DIAPHRAGM)	HC	M	Honeycombs	Diaphragm	0.25 m²	Medium	Many	b	7
12	2	DECK SLAB (DIAPHRAGM)	CR	M	Cracks	Diaphragm	0.4 mm	Medium	Many	b	8
13	2	BOTTOM OF PC GIRDER	SER	M	Spalling	Girder No. 12	0.2 m²	Medium	1	b	9
14	2	BOTTOM OF PC GIRDER	SER	H	Exposed Rebars	Girder No. 12	0.75 m²	Heavy	1	a	10
15	2	SIDE OF PC GIRDER	SER	M	Exposed Rebars	Girder No. 12	<0.3 m²	Medium	3 places	b	11
16	2	SIDE OF PC GIRDER	SER	M	Exposed Rebars	Girder No. 12	0.18 m²	Medium	3 places	b	12
17	2	EXPANSION JOINT	SER	S	Spalling	Hinge	0.06 m²	Small	1	c	-
18	2	DRAINAGE SYSTEM	D/D	M	Deterioration	Span - 2	Remarkable	Medium	8 spouts	b	-
19	2	UTILITIES	WLC	M	Utilities	Waterlines	Remarkable	Medium	2 pipelines	b	-
20	2	PIER BODY	HC	S	Honeycombs	Pier No. 2	0.5 m²	Small	1	c	13
21	2	PIER BODY	SER	S	Exposed Rebars	Pier No. 2	0.2 m²	Small	1	c	-
22	2	PIER BODY (CAP)	CR	M	Cracks	Pier No. 2	0.4 mm	Medium	Many	b	14
23	3	PAVEMENT	CRPL	S	Cracks	Roadway	0.3 mm	Small	Many	c	-

Name of Bridge : Pa8 Makati-Mandaluyong Bridge

Date of Inspection   Nov. 26, 28, Dec. 2, 3, 2002
Inspector   CT Arenas
Checker   LG Sta. Maria

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	SIDEWALK	EJ	M	Almost closed	Left and Right Sidewalk	1.5 m	Medium	2	b	-
2	1	SIDEWALK	CR	S	Cracks	Left and Right Sidewalk	less than 0.3 mm	Small	Many	c	-
3	1	PAVEMENT	CRPL	S	Cracks	Carriageway	less than 5 mm	Small	Many	c	-
4	1	SIDEFACE OF WEB	CR	H	Cracks	Sideface of web near P1 Downstream	0.4 - 0.65 mm	High	Many Horizontal Cracks	a	1, 2
5	1	SIDEFACE OF WEB	CR	H	Cracks	Sideface of web near P1 Upstream	0.6-1.5 mm	High	Many Horizontal Cracks	a	3, 4
6	1	BOTTOM OF PC GIRDER	CR	H	Cracks	Bottom of Box Girder	>0.6 mm	High	1 location	a	5
7	1	BOTTOM OF PC GIRDER	CR	M	Cracks	Bottom of Box Girder	0.2-0.3 mm	Medium	Numerous	b	6
8	1	EXPANSION JOINT	EJ	M	Almost closed	Beginning of Bridge	Medium	Medium	1	b	-
9	1	BEARING SHOE	CO	M	Corrosion	Pier No. 1	Whole	Medium	Whole Shoes	b	7
10	1	PIER BODY (COLUMN)	SER	S	Exposed Rebars	Pier No. 2	0.45m²	Small	1 column	c	8
11	1	FOUNDATION	M/I/S/D	S	Inclination	Pier No. 2	Small	Small	1	c	-
12	2	RAILING	B/R	S	Rupture	Railings	Small	Small	1	c	-
13	2	SIDEWALK	CR	S	Cracks	Left and Right Sidewalk	less than 0.3 mm	Small	Many	c	-
14	2	SIDEWALK	FR	S	Fracture	Sidewalk	less than 0.1 m²	Small	1 side	c	-
15	2	SIDEWALK	B/R	S	Break	Sidewalk	less than 0.1 m²	Small	1 location	c	-
16	2	END DIAPHRAGM	HC	M	Honeycombs	Bottom Bet. G5 & G6	0.2 m²	Medium	2	b	9
17	2	END DIAPHRAGM	HC	H	Honeycombs	Bottom Bet. G4 & G5	1.5 m²	High	1	a	10
18	2	BOTTOM OF BOX	SER	M	Exposed Rebars	Bottom of Deck	0.2 m²	Medium	2	b	11
19	2	BOTTOM OF BOX	CR	S	Cracks	Bottom of Deck	0.03 mm	Small	Many	c	12
20	2	PIER BODY (COLUMN)	SER	M	Exposed Rebars	Pier No. 3	1.5 m²	Medium	1 Location	b	13
21	2	FOUNDATION	M/I/S/D	S	Inclination	Pier No. 3	Small (0.3°)	Small	1	c	-
22	3	SIDEWALK	EJ	M	Almost closed	Left and Right Sidewalk	1.5 m	Medium	1.5 m	b	-
23	3	PAVEMENT	CRPL	S	Cracks	Carriageway	less than 5 mm	Small	Many	c	-
24	3	SURFACE OF WEB	CR	M	Cracks	Surface of Web	0.3 mm	Medium	1	b	14
25	3	SURFACE OF WEB	CR	H	Cracks	Surface of Web	0.8 mm	High	Many	a	15
26	3	EXPANSION JOINT	EJ	S	Slightly disturbed	End of Bridge	Small	Small	1	c	-
27	3	BEARING SHOE	CO	M	Corrosion	Pier No. 4	Whole	Medium	Whole Shoes	b	16

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
							Description of Damage				
28	3	PIER COPING	SER	S	Exposed Rebars	Pier No. 4	0.2 m²	Small	1	c	17

Date of Inspection   Feb. 17-20, 2003
Inspector   AA Salvador
Checker   CT Arenas

Name of Bridge : Pa8 Makati-Mandaluyong Bridge (Approach Spans)

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both Sides	c	1
2	1	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both Sides	c	-
3	1	PAVEMENT	CRPL	S	Local Bumps Asphalt	Expansion Joint Approach	Concave > 20 mm Transverse	Small	Whole Width	c	-
4	1	DECK SLAB	CR	M	Cracks	Deck Slab Surface	0.5 mm	Medium	Many	b	2
5	1	EXPANSION JOINT	EJ	S	Clogged	Expansion @ A1	Full of dirt & fine aggregate	Small	Full Length	c	3
6	1	DRAINAGE SYSTEM	CO/M	M/M	Missing/Corrosion	Whole Span	Spread to Whole Member	Medium	2 Location	b	4, 5
7	1	ABUTMENT BACKWALL	CR	H	Horizontal Cracks	Abutment Wall A1	>0.6 mm	High	1 Location	a	6
8	2	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both Sides	c	-
9	2	DECK SLAB	CR	M	Cracks	Deck Slab Surface	0.35 mm	Medium	Many	b	-
10	2	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	Many	b	-
11	3	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both Sides	c	-
12	3	DECK SLAB	CR	M	Cracks	Deck Slab Surface	0.4 mm	Medium	Many	b	-
13	3	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	2 Location	b	-
14	4	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both Sides	c	-
15	4	DECK SLAB	CR	M	Cracks	Deck Slab Surface	0.35	Medium	Many	b	7
16	4	EXPANSION JOINT	EJ	M	Clogged & Exp. Jt. Separation	Expansion @ P4	Remarkable 25 mm. Vert.	Medium	1 Location	b	8
17	4	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	2 Location	b	-
18	8	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both Sides	c	9
19	8	DECK SLAB	CR	M	Cracks	Deck Slab Surface	0.45	Medium	4 Locations	b	10
20	8	BOT. FLAT SLAB	CR	S	Cracks	Bot. of Flat Slab	0.3 mm	Small	1 Location	c	11
21	8	BOT. FLAT SLAB	CR/FL	S	Crack with Freelime	Bottom of Flat Slab	0.2 mm/0.1 m²	Small	1 Location	c	12, 13
22	8	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	2 Location	b	-
23	8	ABUT. BACKWALL, P7	SER	S	Spall w/ Exposed Rebars	Abut. P7 Wall	0.25 m²	Small	1 Location	c	14
24	9	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both sides	c	-
25	9	DECK SLAB	CR	S	Cracks	Deck Slab Surface	0.2 mm	Small	Many	c	-
26	9	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	2 Location	b	-
27	10	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both sides	c	-
28	10	DECK SLAB	CR	M	Cracks	Deck Slab Surface	0.35 mm	Medium	Many	b	-
29	10	EXPANSION JOINT	EJ	S	Clogged	Pier P11	Full of Fine Aggregates	Small	Whole Length	c	15
30	10	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	1 Location	b	-
31	10	BEARING SHOE	M	M	Missing	Elastomeric Pad @ P10	2 pcs.	Medium	2 Location	b	-
32	11	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both sides	c	-
33	11	DECK SLAB	CR	S	Cracks	Deck Slab Surface	0.15 mm	Small	Many	c	-
34	11	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	1 Location	b	-
35	12	RAILING	P/D	S	Paint Deterioration	Concrete Railing	Progressive Deterioration	Small	Both sides	c	-
36	12	DECK SLAB	CR	S	Cracks	Deck Slab Surface	0.25 mm	Small	Many	c	-
37	12	DRAINAGE SYSTEM	CO	M	Corrosion	Whole Span	Spread over Whole Member	Medium	1 Location	b	-

Date of Inspection   Dec.3,4,9&10, 2002
Inspector   J. Abadam/R. Abad
Checker   J.B. Agnes

Name of Bridge : Pa9.1 GUADALUPE BRIDGE (STEEL TRUSS)

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	Vertical Chord @ Girder 1,2&3	CO	M	Corrosion	Panel 36 @ Bay 2	Reduction of Cross Section	Moderate	One	b	225
2	1	Vertical Chord @ Girder 3	DEF	S	Deformed	Panel 28 @ Bay 3		Slight	One	c	
3	1	Top Chord @ Girder	M	S	Missing Rivet	@ Bay 2	1 Piece	Slight	One	c	
4	1	Vertical Chord	CO	S	Corrosion	Near Abutment A @ Bay 6	Surface Rust	Slight	One	c	
5	1	Lateral Bracing	B/R	M	Broken by Vehicle	Panel 34 @ Bay 4	1 Portion	Moderate	One	b	226
6	1	Bottom Chord @ G-6	DEF	S	Uneven Thickness	Panel 24 & 23 @ Bay 5		Slight	One	c	228
7	1	Sway Bracing	DEF	S	Deformed	Panel 35 @ Bay 1		Slight	One	c	
8	1	Lateral Bracing	B/R	M	Broken	Panel 33 @ Bay 6	1 Portion	Moderate	One	b	227
9	1	Abut. Coping / Abut. A	CR	M	Random Cracks	Below Girder 3	t = 0.483 mm	Moderate	Many	b	204
10	1	Abutment Coping / Abut. A	CR	S	Crack	@ Coping Face	t = 0.254 mm	Slight	One	c	205
11	1	Abutment Coping / Abut. A	SER	S	Spall	@ Coping Face	A = 0.1 m²	Slight	One	c	206
12	1	Abutment Coping / Abut. A	CR	S	Crack	@ Coping Face	t = 0.173 mm	Slight	One	c	207
13	1	Abutment Coping / Abut. A	CR	S	Vertical and Horizontal Cracks	@ Coping Face	t = 0.300 mm	Slight	Many	c	208
14	1	Abutment Coping / Abut. A	CR	M	Vertical Cracks	@ Coping Face	t = 0.350 m	Moderate	Two	b	209
15	1	Abutment Coping / Abut. A	CR	M	Vertical Crack	@ Coping Face	t = 0.50 mm	Moderate	One	b	210
16	1	Abutment Coping / Abut. A	CR	S	Vertical Creck	@ Coping Face	t = 0.300 mm	Slight	One	c	211
17	1	Abutment Coping / Abut. A	CR	S	Random Cracks	@ Coping Face	t = 0.102 mm	Slight	Many	c	212
18	2	Lateral Bracing	CO	S	Corrosion	Panel 22 @ Bay 3	Surface Rust	Slight	One	c	224
19	2	Girder 9	M	S	Missing Rivet	Panel 21 @ Bay 2	One	Slight	One	c	223
20	2	Vertical Chord	DEF	S	Deformed	Panel 20 @ Bay 2		Slight	One	c	222

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
21	2	Bottom Chord @ Girder 9	DEF	S	Deformed	Panel 34 @ Bay 8		Slight	Several	c	240
22	2	Sway Bracing	DEF	S	Deformed	Panel 19 @ Bay 1		Slight	One	c	
23	2	Sway Bracing	DEF	S	Deformed	Panel 20 @ Bay 1	1 Portion	Slight	One	c	
24	2	Sway Bracing	DEF	S	Deformed	Panel 22 @ Bay 1	1 Portion	Slight	One	c	
25	2	Sway Bracing	DEF	S	Deformed	Panel 19 @ Bay 2	1 Portion	Slight	One	c	
26	2	Sway Bracing	DEF	S	Deformed	Panel 23 @ Bay 2	1 Portion	Slight	One	c	
27	2	Sway Bracing	DEF	S	Deformed	Panel 23 @ Bay 7	1 Portion	Slight	One	c	233
28	2	Sway Bracing	DEF	S	Deformed	Panel 24 @ Bay 7	1 Portion	Slight	One	c	235
29	2	Sway Bracing	DEF	S	Deformed	Panel 28 @ Bay 7	1 Portion	Slight	One	c	237
30	2	Sway Bracing	DEF	S	Deformed	Panel 32 @ Bay 7	1 Portion	Slight	One	c	238
31	2	Sway Bracing	DEF	S	Deformed	Panel 34 @ Bay 7	1 Portion	Slight	One	c	239
32	2	Lateral Bracing	B/R	M	Broken	Panel 35 @ Bay 7	Remarkable Damage	Moderate	One	b	245
33	2	Sway Bracing	DEF	S	Deformed	Panel 12 @ Bay 8	1 Portion	Slight	One	c	230
34	2	Sway Bracing	DEF	S	Deformed	Panel 12 @ Bay 8	1 Portion	Slight	One	c	229
35	2	Sway Bracing	DEF	M	Deformed	Panel 17 @ Bay 8	Unusual Deflection	Moderate	One	b	231
36	2	Sway Bracing	DEF	S	Deformed	Panel 23 @ Bay 8	1 Portion	Slight	One	c	234
37	2	Sway Bracing	DEF	S	Deformed	Panel 24 @ Bay 8	2 Portions	Slight	Two	c	236
38	2	Sway Bracing	DEF	S	Deformed	Panel 35 @ Bay 9	1 Portion	Slight	One	c	242
39	2	Sway Bracing	DEF	S	Deformed	Panel 37 @ Bay 9	1 Portion	Slight	One	c	244
40	2	Sway Bracing	DEF	M	Deformed	Panel 21 @ Bay 9	Unusual Deflection	Moderate	One	b	232
41	2	Sway Bracing	DEF	M	Deformed	Panel 35 @ Bay 8	Unusual Deflection	Moderate	One	b	241
42	2	Sway Bracing	CO	S	Corrosion	Panel 36 @ Bay 9	Surface Rust	Slight	One	c	243
43	2	Sway Bracing	DEF	M	Deformed	Panel 36 @ Bay 9	Remarkable Damage	Moderate	One	b	
44	2	Sway Bracing	M	H	Missing Rivet	Panel 15 @ Bay 1	Three Location	Heavy	Twelve	a	
45	2	Sway Bracing	M	H	Missing Rivet	Panel 19 @ Bay 1	Two Location	Heavy	Eight	a	
46	2	Sway Bracing	DEF	S	Deformed	Panel 20 @ Bay 1		Slight	One	c	
47	2	Sway Bracing	DEF	S	Deformed	Panel 23 @ Bay 1		Slight	One	c	
48	2	Sway Bracing	M	S	Missing Rivet	Panel 15 @ Bay 2	1 Piece	Slight	One	c	
49	2	Sway Bracing	DEF	S	Deformed	Panel 17 @ Bay 2		Slight	One	c	221
50	2	Sway Bracing	M	H	Missing Rivet	Panel 20 @ Bay 2	Four Pieces	Heavy	Twenty Four	a	
51	2	Sway Bracing	DEF	S	Deformed	Panel 21 @ Bay 3		Slight	One	c	
52	2	Pier 1 (Wall)	SER	S	Exposed Rebar	Bottom of Center Column @ Upstream Side	A = 0.45 m²	Slight	One	c	167
53	2	Pier 1 (Wall)	SER	S	Exposed Rebar	Bottom of Column @ Downstream Side	A = 0.40 m²	Slight	One	c	168
54	3	Girder 8	M	M	Loose Bolts/Missing Rivet	Panel 10 @ Bay 8	Three Pieces	Moderate	three	b	
55	3	Top Chord @ Girder 7	M	S	Missing Rivet Head	@ Bay 8	One Piece	Slight	one	c	
56	3	Top Chord @ Girder 7	M	S	Missing Bolt	Panel 8 @ Bay 7	One Piece	Slight	one	c	218
57	3	Top Chord @ Girder 7 & 8	M	M	Missing Bolt	Panel 6 @ Bay 7	Two Piece	Moderate	two	b	217
58	3	Top Chord @ Girder 8	M	S	Missing Bolt	Girder 7, Panel 8 @ Bay 7	One Piece	Slight	one	c	
59	3	Top Chord @ Girder 8	M	M	Missing Rivet Head	@ Bay 8	Two Piece	Moderate	Two	b	
60	3	Top Chord @ Girder 2	CO	M	Corrosion	Panel 4 & 6 @ Bay 1	Reduction of Cross Section	Moderate	One	b	220
61	3	Stringer	M	S	Missing Bolt	@ Panel 3	One Piece	Slight	One	c	23A
62	3	Stringer	L/M	S	Loosed Bolt and Nut	@ Panel 3	One Piece	Slight	One	c	22A
63	3	Sway Bracing	M	M	Missing Rivet	@ Panel 3	One Piece	Slight	Two	b	27A
64	3	Cross Beam	DEF	S	Deformed	@ Panel 8		Slight	One	c	30
65	3	Sway Bracing	DEF	S	Deformed	Panel 9	One Location	Slight	Four	c	31
66	3	Sway Bracing	M	M	Missing Rivet	Panel 1	One Piece	Moderate	Four	b	
67	3	Sway Bracing	M	M	Missing Rivet	Panel 2	One Piece	Moderate	Two	b	26A
68	3	Sway Bracing	CO	S	Not Welded/Corrosion	Panel 5		Slight	b	c	28A
69	3	Sway Bracing	DEF	M	Deformed	Panel 6	Remarkable Deflection	Moderate	c	b	29
70	3	Sway Bracing	DEF	S	Deformed	Panel 10		Slight	One	c	32
71	3	Sway Bracing	M	S	Missing Rivet	Panel 2 @ Bay 6	One Piece	Slight	One	c	214
72	3	Sway Bracing	M	S	Missing Rivet	Panel 2 @ Bay 6	One Piece	Slight	one	c	215
73	3	Sway Bracing	M	S	Missing Rivet	Panel 2 @ Bay 6	One Piece	Slight	One	c	216
74	3	Stringer	CO	S	Corrosion	@ Panel 3	Surface Rust	Slight	One	c	21A
75	3	Stringer	M	M	Missing Rivet	@ Panel 10	One Piece	Moderate	Two	b	33
76	3	Sway Bracing	DEF	S	Deformed	@ Panel 11		Slight	One	c	34
77	3	Stringer	DEF	M	Deformed	@ Panel 11		Moderate	Two	b	35
78	3	Abutment B	SER	S	Spall	Backwall	A = 0.14 m²	Slight	One	c	24A
79	3	Pier 2 (Wall)	CR	H	Vertical Crack	Upstream Side of Wall	t = 1.753 mm	Heavy	One	a	65
80	3	Pier 2 (Wall)	CR	H	Vertical Crack	Upstream Side of Wall	t = 1.061 mm	Heavy	One	a	66
81	3	Pier 2 (Wall)	CR	H	Vertical Crack	Construction Jopint along Upstream Side	t = 1.194 mm	Heavy	One	a	67
82	3	Pier 2 (Wall)	CR	H	Vertical Crack	Center Face of Pier @ Downstream Side	t = 0.635 mm	Heavy	One	a	68
83	3	Pier 2 (Wall)	CR	H	Vertical Crack	Downstream Side of Pier Wall	t = 2.794 mm	Heavy	One	a	69
84	3	Pier 2 (Wall)	D/D	S	Cavity	Bottom Face of Pier Wall @ Downstream Side	A = 0.44 m²	Slight	One	c	70-71
85	3	Extended Coping	CR	H	Vertical Crack	Face of Coping @ Pier 2	t = 2.784 mm	Heavy	One	a	50
86	3	Extended Coping	CR	M	Vertical & Horizontal Crack	Face of Coping along Bay 5	t = 0.203 mm	Moderate	One	b	52
87	3	Extended Coping	CR	H	Vertical & Horizontal Crack	Face of Coping along Bay 6	t = 0.584 mm	Heavy	One	a	53

Date of Inspection __Dec. 3,4,9&10, 2002__
Inspector __R. Abad / J. Abadam__
Checker __J. Agnes__

Name of Bridge : __Pa9.1 GUADALUPE BRIDGE (DOWNSTREAM)__

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
1	1	Railing	SER	S	Exposed Rebar	4.5 m from Abut. A	A = 0.10 m²	Slight	One	c	1
2	1	Cantilever Slab & Rail Post	SER	M	Exposed Rebar	Side of Cantilever Slab	A = 0.12 m²	Moderate	Two	b	2
3	1	Curb	SER	S	Spall	14.5 m from Abutment A	A = 0.03 m²	Slight	One	c	3
4	1	PSC Girder G-1	CR	M	Crack	Pier 1 Face of Girder	t = 0.254 mm	Moderate	One	b	121
5	1	Deck Slab	CR	S	Random Cracks	Bot.of Slab @ Bay 1, 2.0 m fr. Pier 1	t = 0.173 mm	Slight	Many	c	122
6	1	End Diaphragm	CR	H	Vertical and Horizontal Cracks	Pier 1 Face of Diaphragm @ Bay 1	t = 0.610 mm	Heavy	Three	a	123
7	1	Pier 1 (Wall)	CR	M	Vertical Crack	Below Girder 2	t = 0.330 mm	Moderate	One	b	124
8	1	Pier 1 (Wall)	CR	S	Vertical Crack	Below Girder 2	t = 0.152 mm	Slight	One	c	125
9	1	Pier 1 (Wall)	CR	S	Vertical Crack	Below Girder 3	t = 0.102 mm	Slight	One	c	126

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
10	1	Pier 1 (Wall)	CR	S	Vertical Crack	Below Girder 3	t = 0.152 mm	Slight	One	c	127
11	1	Pier 1 (Wall)	CR	M	Vertical Crack	Below Girder 3	t = 0.305 mm	Moderate	One	b	128
12	1	End Diaphragm	CR	H	Vertical Crack	Face of Diaphragm @ Bay 2	t = 0.610 mm	Heavy	One	a	129
13	1	End Diaphragm	CR	M	Vertical Crack	Face of Diaphragm @ Bay 2	t = 0.432 mm	Moderate	One	b	130
14	1	End Diaphragm	CR	S	Vertical Crack	Face of Diaphragm @ Bay 3	t = 0.254 mm	Slight	One	c	131
15	1	End Diaphragm	CR	S	Vertical Crack	Face of Diaphragm @ Bay 3	t = 0.229 mm	Slight	One	c	132
16	1	PSC Girder G-4	CR	S	Random Cracks	Face of Girder	t = 0.173 mm	Slight	Many	c	133
17	1	PSC Girder G-4	SER	S	Exposed Rebar	Face of Girder	A = 0.01 m²	Slight	Two	c	134
18	1	PSC Girder G-4	CR	S	Crack	Face of Girder	t = 0.173 mm	Slight	One	c	135
19	1	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab	A = 0.03 m²	Slight	One	c	136
20	1	Bearing Shoe	SER	S	Spall	Bearing Shoe @ Girder 4	A = 0.052 m²	Slight	One	c	137
21	1	PSC Girder G-4	SER	S	Spall	Top of Rocker @ Girder	A = 0.05 m²	Slight	One	c	137
22	1	PSC Girder G-1	SER	S	Spall	Face of Girder	A = 0.02 m²	Slight	One	c	146
23	2	Pier 2 (Wall)	SER	S	Exposed Rebar	Face of Pier	A = 0.09 m²	Slight	Two	c	77
24	2	Pier 2 (Wall)	CR	H	Vertical and Horizontal Cracks	1.5 m from Top of Footing	t = 0.610 mm	Heavy	Two	a	78
25	2	Fender	FR	M	Fracture	Downstream Side	Whole	Moderate	One	b	79
26	2	Pier 2 Footing	CRPL	M	Pothole	Top of Footing	A = 0.07 m²	Moderate	b	c	80
27	2	Pier 2 Footing	SER	S	Spall	Edge of Footing	A = 0.03 m²	Slight	One	c	81
28	2	PSC Girder G-1	SER	S	Exposed Rebar	Bottom of Girder	A = 0.05 m²	Slight	One	c	82
29	2	PSC Girder G-1	SER	S	Exposed Rebar	Face of Girder	A = 0.01 m²	Slight	One	c	83
30	2	PSC Girder G-1	SER	S	Exposed Rebar	Face of Girder	A = 0.01 m²	Slight	One	c	84
31	2	End Diaphragm @ Bay 1	CR	S	Vertical Crack	Front Face	t = 0.254 mm	Slight	One	c	85
32	2	Cantilever Slab	CR	S	Random Cracks	Bottom of Cantilever Slab	t = 0.229 mm	Slight	Four	c	86
33	2	PSC Girder G-1	CR	H	Horizontal Crack	Face of Girder near Gerber	t = 0.406 mm	Heavy	One	a	91
34	2	PSC Girder G-1	CR	H	Vertical Crack	Face of Girder near Gerber	t = 3.048 mm	Heavy	One	a	92
35	2	PSC Girder G-1	CR	M	Diagonal Crack	Face of Girder near Gerber	t = 0.381 mm	Moderate	Two	b	93
36	2	PSC Girder G-1	CR	M	Vertical Crack	Face of Girder near Gerber	t = 0.305 mm	Moderate	One	b	94
37	2	PSC Girder G-1	CR	M	Vertical Crack	Face of Girder near Gerber	t = 0.254 mm	Moderate	One	b	95
38	2	PSC Girder G-1	CR	M	Random Cracks	Face of Girder near Gerber	t = 0.254 mm	Moderate	Three	b	96
39	2	Extended Coping	CR	M	Vertical Crack	Face of Coping	t = 0.406 mm	Moderate	One	b	97
40	2	PSC Girder G-1	SER	S	Exposed Rebar	Bottom of Girder	A = 0.03 m²	Slight	One	c	98
41	2	PSC Girder G-1	SER	S	Exposed Rebar	Bottom End of Girder @ Pier 2	A = 0.01 m²	Slight	One	c	99
42	2	End Diaphragm	HC	M	Honeycomb	Gerber Hinge @ Bay 1	A = 0.20 m²	Moderate	One	b	100
43	2	PSC Girder G-1	CR	M	Diagonal Crack	Face of Girder	t = 0.254 mm	Moderate	One	b	101
44	2	End Diaphragm	CR	S	Random Cracks	Bottom of Diep. @ Bay 1	t = 0.076 mm	Slight	Two	c	102
45	2	PSC Girder G-2	CR	S	Vertical Crack	Face of Girder	t = 0.102 mm	Slight	One	c	103
46	2	End Diaphragm	CR	S	Crack	Bottom of Diaphragm @ Bay 2	t = 0.127 mm	Slight	One	c	104
47	2	End Diaphragm	CR	S	Crack	Bottom of Diaphragm @ Bay 2	t = 0.102 mm	Slight	One	c	105
48	2	End Diaphragm	CR	M	Crack	Bottom of Diaphragm @ Bay 2	t = 0.305 mm	Moderate	Three	b	106
49	2	End Diaphragm	HC	M	Honeycomb	Gerber Hinge @ Bay 2	A = 0.20 m²	Moderate	One	b	107
50	2	PSC Girder G-3	SER	S	Exposed Rebar	Bottom of Girder @ Gerber Hinge	A = 0.01 m²	Slight	One	c	108
51	2	End Diaphragm	HC	S	Honeycomb	Gerber Hinge @ Bay 3	A = 0.09 m²	Slight	One	c	109
52	2	End Diaphragm	HC	M	Honeycomb	Gerber Hinge @ Bay 3	A = 0.23 m²	Moderate	One	b	110
53	2	End Diaphragm	SER	S	Exposed Rebar	Gerber Hinge @ Bay 3	A = 0.03 m²	Slight	One	c	111
54	2	PSC Girder G-4	CR	S	Diagonal Crack	Face of Girder	t = 0.173 mm	Slight	One	c	112
55	2	Deck Slab	CR/FL	M	Crack /Free Lime	Bottom of Slab @ Bay 3	t = 0.40 mm	Moderate	One	b	113
56	2	PSC Girder G-4	CR	H	Random Cracks	Face of Girder @ Gerber Hinge	t = 0.432 mm	Heavy	Three	a	114
57	2	PSC Girder G-4	CR	H	Random Cracks	Face of Girder @ Gerber Hinge	t = 2.286 mm	Heavy	Five	a	115
58	2	PSC Girder G-4	SER	S	Spall	Face of Girder @ Gerber Hinge	A = 0.09 m²	Slight	One	c	116
59	2	PSC Girder G-4	SER	S	Exposed Rebar	Face of Girder	A = 0.01 m²	Slight	One	c	117
60	2	PSC Girder G-4	CR	S	Diagonal Cracks	Face of Girder @ Gerber Hinge	t = 0.076 mm	Slight	Two	c	118
61	2	Cantilever Slab	CR	S	Crack	Bottom of Cantilever Slab	t = 0.102 mm	Slight	One	c	119
62	2	PSC Girder (G-1)	SER	S	Spall	Top of Rocker	A = 0.04 m²	Slight	One	c	120
63	2	Bearing Shoe	L/M	S	Loose Nut & Rusted	Bearing @ Girder One	1 Nut	Slight	One	c	120
64	2	PSC Girder G-1	CR	H	Random Cracks	Face of Girder @ Gerber Hinge	t = 0.584 mm	Heavy	Many	a	138
65	2	PSC Girder G-1	CR	H	Random Cracks	Face of Girder @ Gerber Hinge	t = 1.092 mm	Heavy	Many	a	139
66	2	PSC Girder G-1	SER	S	Exposed Rebar	Face of Girder @ Gerber Hinge	A = 0.02 m²	Slight	One	c	140
67	2	Cantilever Slab	SER	S	Spall	Bottom of Slab @ Gerber Hinge	A = 0.03 m²	Slight	One	c	141
68	2	PSC Girder G-1	CR	H	Random Cracks	Face of Girder @ Gerber Hinge	t = 2.280 mm	Heavy	Seven	a	142
69	2	Pier 1 (Wall)	CR	M	Random Cracks	Face of Pier	t = 0.483 mm	Moderate	Many	b	143
70	2	Pier 1 (Wall)	CR	H	Vertical Crack	Face of Pier	t = 1.169 mm	Heavy	Two	a	144
71	2	Pier 1 (Wall)	SER	S	Exposed Rebar	Face of Pier	A = 0.12 m²	Slight	Two	c	145
72	2	PSC Girder G-1	SER	S	Exposed Rebar	Bottom of Girder @ Gerber Hinge	A = 0.03 m²	Slight	Two	c	147

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
73	2	PSC Girder G-2	SER	M	Exposed Rebar	Bottom of Girder @ Gerber Hinge	A = 0.16 m²	Moderate	One	b	148
74	2	PSC Girder G-2	SER	S	Exposed Rebar	Bottom of Girder	A = 0.02 m²	Slight	Two	c	149
75	2	PSC Girder G-2	SER	S	Exposed Rebar	Bottom of Girder	A = 0.02 m²	Slight	One	c	150
76	2	End Diaphragm	SER	S	Exposed Rebar	Bottom of Girder @ Gerber Hinge	A = 0.06 m²	Slight	One	c	151
77	2	PSC Girder G-3	SER	M	Exposed Rebar	Bottom of Girder @ Gerber Hinge	A = 0.25 m²	Moderate	Two	b	152
78	2	PSC Girder G-3	SER	S	Exposed Rebar	Bottom of Girder	A = 0.02 m²	Slight	One	c	153
79	2	PSC Girder G-3	HC	M	Honey Comb	Bottom of Girder @ Gerber Hinge	A = 0.21 m²	Moderate	One	b	154
80	2	End Diaphragm	SER	S	Exposed Rebar	Face of Diaphragm	A = 0.01 m²	Slight	Two	c	155
81	2	PSC Girder G-4 & End Diaphragm	HC	M	Honey Comb	Bottom of Diaphragm & Girder @ Gerber	A = 0.12 m²	Moderate	One	b	156
82	2	PSC Girder G-4	SER	M	Exposed Rebar	Bottom of Girder	A = 0.12 m²	Moderate	One	b	157
83	2	PSC Girder G-4	CR	M	Diagonal Crack	Face of Girder & Gerber	t = 0.229 mm	Moderate	One	b	158
84	2	PSC Girder G-4	SER	S	Exposed Rebar	Face of Girder	A = 0.06 m²	Slight	Three	c	159
85	2	PSC Girder G-4	CR	H	Random Cracks	Face of Girder @ Gerber Hinge	t = 0.610 mm	Heavy	Two	a	160
86	2	PSC Girder G-4	CR	S	Vertical and Horizontal Cracks	Face of Girder	t = 0.173 mm	Slight	Two	c	161
87	2	PSC Girder G-4	CR	S	Diagonal Cracks	Face of Girder	t = 0.127 mm	Slight	Two	c	162
88	2	PSC Girder G-4	SER	S	Exposed Rebar	Face of Girder	A = 0.01 m²	Slight	One	c	163
89	2	Cantilever Slab	SER	M	Exposed Rebar	Side Face of Slab	A = 0.10 m²	Moderate	Two	b	164
90	2	Fender	FR	M	Fracture	At Bottom Above Footing		Moderate	One	b	165
91	3	Railing	SER	S	Exposed Rebar	3.0 m from Abut. B	A = 0.01 m²	Slight	Two	c	4
92	3	Steel Angle Expansion Joint	FR	M	Fracture	2.5 m from Median Curb	L = 0.82 m	Moderate	One	b	6
93	3	Pier 2, shear Block & Coping	CR	S	Crack	Construction Joint of Shear Block and	t = 0.229 mm	Slight	Two	c	
94	3	Pier 2 Coping	SER	S	Spall	Face of Coping	A = 0.04 m²	Slight	One	c	
95	3	PSC Girder G-2	HC	S	Honeycomb	Bottom of Girder	A = 0.03 m²	Slight	One	c	
96	3	Abutment B Shear Block	CR	S	Vertical Cracks	Face of Shear Block	t = 0.173 mm	Slight	Six	c	
97	3	Abutment B Extended Coping	CR	S	Random Cracks	Face of Coping	t = 0.102 mm	Slight	Many	c	
98	3	Pier 2 (Wall)	SER	S	Exposed Rebar	1.5 m from Bottom of Girder DS	A = 0.06 m²	Slight	One	c	36
99	3	PSC Girder G-4	CR	S	Vertical Crack	Face of Girder	t = 0.076 mm	Slight	One	c	37
100	3	Pier 2 (Wall)	CR	H	Random Vertical Cracks	Front Face	t = 0.610 mm	Heavy	Two	a	72
101	3	Pier 2 (Wall)	CR	M	Vertical Crack	Front Face	t = 0.432 mm	Moderate	One	b	73
102	3	Fender	SER	S	Exposed Rebar	Face of Fender	A = 0.01 m²	Slight	Many	c	74
103	3	Pier 2 (Wall)	HC	S	Honeycomb	Downstream Face of Pier	A = 0.02 m²	Slight	Three	c	75
104	3	Fender	SER	S	Exposed Rebar	Bottom Face of Fender	A = 0.18 m²	Slight	One	c	76
105		Rail Post	SER	S	Exposed Rebar	Along approach road @ D/S	A = 0.10 m²	Slight	One	c	5

Date of Inspect 12/3,4,9&10, 2002
Inspector   R. Abad / J. Abadam
Checker   J. Agnes

Name of Bridge :   Pa9.2 GUADALUPE BRIDGE (UPSTREAM)

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
1	1	Cantilever Slab	SER	M	Exposed Rebar	Side Face of Slab	A = 0.12 m²	Moderate	One	b	187
2	1	Intermediate Diaphragm	SER	S	Exposed Rebar	Bottom of Diaphragm @ Bay 2	A = 0.10 m²	Slight	One	c	213
3	2	PSC Girder G-1	SER	S	Exposed Reabr	Face of Girder	A = 0.03 m²	Slight	One	c	38
4	2	Gerber Hinge	SER	M	Spall	Bottom of Girder and End Diaphragm	A = 0.177 m²	Moderate	Three	b	41
5	2	Pier 2 (Wall)	SER	M	Exposed Reabr	Face of Column	A = 1.14 m²	Moderate	One	b	60
6	2	Pier 2 (Wall)	SER	S	Exposed Reabr	Center of Pier Wall	A = 0.09 m²	Slight	One	c	61
7	2	Pier 2 (Wall)	CR	S	Random Map Cracking	Face of Pier 2	t = 0.076 mm	Slight	Many	c	62
8	2	Pier 2 (Wall)	CR	S	Vertical and Horizontal Cracks	Face of Pier 2	t = 0.152 mm	Slight	Two	c	63
9	2	Pier 2 (Footing)	SER	S	Exposed Reabr	Footing @ Upstream	A = 1.00 m²	Slight	Many	c	64
10	2	Intermediate Diaphragm @ Bay 3	SER	S	Exposed Reabr	Bottom of Diaphragm	A = 0.01 m²	Slight	One	c	87
11	2	Intermediate Diaphragm @ Bay 2	CR	S	Vertical and Longitudinal Cracks	Bottom of Diaphragm	t = 0.173 mm	Slight	Two	c	88
12	2	PSC Girder G-1	CR	S	Longitudinal Crack	Top Flange of Girder	t = 0.102 mm	Slight	Two	c	89
13	2	PSC Girder G-1	CR	S	Vertical Crack	Face of Girder	t = 0.102 mm	Slight	One	c	90
14	2	Utilities Hanger	CO	H	Corrosion	Bottom of Hanger	Remarkable Corrosion Spread Over Member	Heavy	Two	a	166
15	2	Fender Beam	FR	H	Fractured	At End Near Pier		Heavy	Two	a	169
16	2	Pier 1 (Wall)	CR	S	Random Cracks	Face of Pier	t = 0.254 mm	Slight	Three	c	170
17	2	PSC Girder G-4	HC	H	Honeycomb	Bottom of Girder	A = 0.96 m²	Heavy	One	a	171
18	2	End Diaphragm	HC	M	Honeycomb	Bottom of Diaphragm	A = 0.18 m²	Moderate	One	c	172
19	2	End Diaphragm	CR	S	Crack	Bottom of Diaphragm @ Bay 3	t = 0.102 mm	Slight	One	c	173
20	2	End Diaphragm	HC	S	Honeycomb	Top Face of Diaphragm @	A = 0.09 m²	Slight	One	c	174
21	2	End Diaphragm	HC	S	Honeycomb	Bottom of Diaphragm @ Bay 3	A = 0.06 m²	Slight	One	c	175
22	2	PSC Girder G-3	SER	S	Exposed Rebar	Bottom of Girder	A = 0.25 m²	Slight	One	c	176
23	2	PSC Girder G-3	SER	S	Exposed Rebar	Bottom of Girder	A = 0.60 m²	Slight	Two	c	177
24	2	End Diaphragm	SER	S	Exposed Rebar	Bottom of Diaphragm @ Bay 2	A = 0.05 m²	Slight	One	c	178
25	2	End Diaphragm	SER	H	Exposed Rebar	Bottom of Diaphragm	A = 0.35 m²	Heavy	One	a	179

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
26	2	End Diaphragm	SER	S	Spall	Bottom of Diaphragm @ Bay 1	A = 0.18 m²	Slight	One	b	180
27	2	End Diaphragm	SER	S	Exposed Rebar	Top Face of Diaphragm @	A = 0.05 m²	Slight	One	c	181
28	2	End Diaphragm	SER	S	Exposed Rebar	Bottom of Diaphragm	A = 0.09 m²	Slight	One	c	182
29	2	PSC Girder G-1	CR	S	Random Cracks	Face of Girder @ Gerber Hinge	t = 0.127 mm	Slight	Four	c	183
30	2	PSC Girder G-1	CR	S	Random Cracks	Face of Girder @ Gerber	t = 0.173 mm	Slight	many	c	184
31	2	PSC Girder G-1	CR	S	Horizontal Cracks	Face of Girder	t = 0.152 mm	Slight	Two	c	185
32	2	Pier 1 (Wall)	SER	S	Exposed Rebar	Face of Pier	A = 0.30 m²	Slight	One	c	186
33	2	Fender	FR	M	Fractured			Heavy	One	b	188
34	2	PSC Girder G-4	SER	S	Exposed Rebar	Face of Girder	A = 0.02 m²	Slight	One	c	189
35	2	PSC Girder G-4	SER	M	Exposed Rebar	Bottom of Girder	A = 0.20 m²	Moderate	One	b	190
36	2	PSC Girder G-4	SER	S	Exposed Rebar	Bottom of Girder @ Bay 3	A = 0.05 m²	Slight	One	c	191
37	2	PSC Girder G-3	SER	S	Exposed Rebar	Bottom of Girder	A = 0.05 m²	Slight	One	c	192
38	2	PSC Girder G-2	CR	S	Crack	Bottom of Girder	t = 0.173 mm	Slight	One	c	193
39	2	PSC Girder G-2	SER	S	Spall	Bottom of Girder	A = 0.06 m²	Slight	One	c	194
40	2	End Diaphragm	HC	M	Honeycomb	Bottom of Girder @ Bay 1	A = 0.12 m²	Moderate	One	b	195
41	2	End Diaphragm	SER	S	Exposed Rebar	Bottom of Diaphragm	A = 0.08 m²	Slight	One	c	196
42	2	PSC Girder G-1	SER	M	Exposed Rebar	Bottom of Girder	A = 0.12 m²	Moderate	One	b	197
43	2	PSC Girder G-1	SER	S	Exposed Rebar	Bottom of Girder	A = 0.01 m²	Slight	Two	c	198
44	2	PSC Girder G-1	CR	H	Random Cracks	Face of Girder @ Gerber	t = 1.194 mm	Heavy	Many	a	199
45	2	PSC Girder G-1	CR	M	Random Cracks	Face of Girder @ Gerber	t = 0.203 mm	Moderate	Many	b	200
46	2	PSC Girder G-1	CR	S	Random Crack	Face of Girder @ Gerber	t = 0.173 mm	Slight	Many	c	201
47	2	PSC Girder G-1	CR	M	Crack	Face of Girder @ Gerber	t = 0.203 mm	Moderate	One	b	202
48	2	PSC Girder G-1	CR	S	Crack	Face of Girder @ Center Span	t = 0.173 mm	Slight	One	c	203
49	3	PSC Girder G-1	SER	S	Spall	Top of Rocker	A = 0.06 m²	Slight	One	c	39
50	3	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Cantilever Slab,	A = 0.09 m²	Slight	One	c	40
51	3	Pier 2 (Wall)	SER	S	Exposed Rebar	Pier Wall @ Bay 3	A = 0.06 m⁴	Slight	One	c	42
52	3	PSC Girder G-1	HC	H	Honeycomb	Bottom of Girder	A = 0.66 m²	Heavy	One	a	43
53	3	PSC Girder G-1	HC	S	Honeycomb	Face of Girder	A = 0.01 m²	Slight	One	c	44
54	3	Extended Coping	CR	S	Random Cracks	Front Face Below Girder G-2	t = 0.229 mm	Slight	Three	c	45
55	3	End Diaphragm @ Bay 2	CR	S	Random Cracks	Front Face	t = 0.102 mm	Slight	Two	c	46
56	3	Extended Coping	CR	S	Random Cracks	Front Face Below Girder G-3	t = 0.229 mm	Slight	Three	c	47
57	3	End Diaphragm @ Bay 3	CR	S	Vertical Crack	Front Face	t = 0.173 mm	Slight	One	c	48
58	3	PSC Girder G-4	SER	S	Spall	Top of Rocker	A = 0.06 m²	Slight	One	c	49
59	3	Utilities	M	S	Missing Portion	D/S of Girder G-4	L = 0.80 m	Heavy	Many	c	51
60	3	PSC Girder G-4	SER	S	Exposed Rebar	Top Flange of Girder	A = 0.01 m⁵	Slight	Three	c	54
61	3	Cantilever Slab	SER	S	Spall	Bottom of Cantilever Slab	A = 0.03 m²	Slight	Many	c	55
62	3	PSC Girder G-1	HC	H	Honeycomb	Bottom of Girder	A = 0.4 m²	Heavy	One	a	56
63	3	PSC Girder G-1	SER	S	Exposed Rebar	Face of Girder,	A = 0.04 m²	Slight	Three	c	57
64	3	Cantilever Slab	HC	S	Honeycomb	Haunch of Cantilever Slab	A = 0.06 m²	Slight	One	c	58
65	3	Fender	FR	M	Damaged	Pier 2 Upstream		Heavy	One	b	59

Date of Inspe Nov. 22/Dec. 10-13,2002
Inspector E. Pagaragan/R. Quiwa
Checker J. B. Agnes

Name of Bridge : Pa10 C - 5 BRIDGE

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	Abutment A Wing Wall	CR	S	Random Cracks	Outer Face	t = 0.076 mm	Slight	Several	c	58a/61
2	1	Abutment A	CR	M	Horizontal Crack	Backwall	t = 0.356 mm	Moderate	One	b	60
3	1	Abutment A Back Wall	HC	S	Honeycomb	Face of Backwall		Slight	One	c	
4	1	Abutment A	CR	S	Diagonal Crack	Below end of Risers	t = 0.076 mm	Slight	Two	c	59
5	1	Pier 1 Coping	CR	S	Vertical Crack	Bay 2 near Girder G-2	t = 0.30 mm	Slight	One	c	62
6	1	Pavement	CRPL	H	Pothole	Above P1	0.3 m ø	Heavy	One	a	365
7	2	Railing	FR	S	Fractured Railing	2nd Panel From P1	A = 0.06 m²	Slight	One	c	63
8	2	Railing/Rail Post	SER	S	Spall	Lower rail & Post 8 m from P2 DS	A = 0.02 m²	Slight	One	c	64
9	2	Railing	SER	S	Exposed Rebar	3 m. from P1	A = 0.03 m²	Slight	One	c	356
10	2	Pavement	CRPL	H	Pothole	1.2 m. from P2	0.7 m dia.	Heavy	One	a	357
11	3	Railing/Rail Post	SER	S	Spall Railing & Rail Post	P3 Downstream Side	A = 0.03 m²	Slight	One	c	65
12	3	Pavement	CRPL	S	Concrete Spill			Slight	One	c	66/67
13	3	Railing / Raipost	SER	S	Exposed Rebar	3 m. from P2	A = 0.01 m²	Slight	One	c	358
14	3	Railing	SER	S	Exposed Rebar	10.3 m from P3	A = 0.05 m²	Slight	Several	c	359
15	3	Curb	SER	S	Spall	Above P3	A = 0.08 m²	Slight	One	c	360
16	3	Sidewalk	SER	S	Spall	Above P3	A = 0.015 m²	Slight	One	c	366
17	4	Pier 3 Coping	CR	S	Crack	End of Riser at Bay 5	t = 0.072 mm / t = 0.152 mm	Slight	One	c	13/14
18	4	Pier 3 Coping	CR	S	Crack	End of Riser at Bay 4	t = 0.173 mm	Slight	One	c	15
19	4	Pier 3 Coping	CR	S	Crack	Bay 3	t = 0.102 mm	Slight	One	c	16

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
20	4	Pier 3 Coping	CR	S	Vertical Crack	Bay 1 & 2	t = 0.102 mm	Slight	One	c	17/18
21	4	PSC Girder G-12	SER	S	Spalling	End of Girder	A = 0.01 m²	Slight	One	c	1
22	4	Pier 3 Coping	CR	M	Vertical Crack	Down Stream Side	t = 0.356 mm	Moderate	One	b	2
23	4	Restraining Bar @ Pier 3	CO	H	Corrosion	Pier 3	Reduction in Cross Section	Heavy	All	a	3
24	4	End Diaphragm @ P3	SER	S	Spall	End Diaphgram	A = 0.04 m²	Slight	One	c	4
25	4	Pier 3 Coping	CR	S	Vertical Crack	End of Riser	t = 0.156 mm	Slight	One	c	5
26	4	Pier 3 Coping	CR	S	Vertical Crack	End of Riser	t = 0.173 mm	Slight	One	c	6
27	4	End Diaphragm at Pier 3	CR	S	Vertical Crack	Bay 6	t = 0.152 mm	Slight	One	c	7
28	4	Deck Slab	HC	M	Honey Comb	Underside of Deck Slab at P3 at Bay 6	A = 1.80 m²	Heavy	One	a	8
29	4	Pier 3 Coping	CR	S	Vertical Crack	Bay 6	t = 0.102 mm	Slight	One	c	9
30	4	Pier 3 Coping	HC	S	Honeycomb	Bay 6	A = 0.02 m²	Slight	One	c	10
31	4	PSC Girder G-6	SER	S	Spall	Bottom Side of Girder	A = 0.05 m²	Slight	One	c	11
32	4	Pier 3 Coping	CR	S	Crack	Face of Coping	t = 0.076 mm	Slight	One	c	12
33	4	Railing	CR	S	Horizontal Crack	1.5 m. from P4	t = 0.09 mm	Slight	One	c	361
34	5	Sidewalk Slab	HC	H	Honeycomb	Bottom of Slab	A = 0.12 m²	Moderate	One	b	251
35	5	Sidewalk Slab	CR	S	Random Cracks	Bottom of Slab	t = 0.127 mm	Slight	Several	c	252
36	5	End of Diaphragm @ Bay 1 / P5	HC	S	Honeycomb	Haunch at Top	A = 0.01 m²	Slight	Several	c	253
37	5	Restraining Bar	M	H	Missing	Bay 1	One Bay	Heavy	Two	a	254
38	5	PSC Girder G-2	SER	S	Spall	Bottom Flange @ Bay 1 Side	A = 0.02 m²	Slight	One	c	255
39	5	PSC Girder G-3	SER	S	Spall	Bottom Flange @ Bay 2 Side	A = 0.10 m²	Slight	One	c	256
40	5	Deck Slab @ Bay 3/P5	CR	S	Random Cracks	Bottom of Slab	t = 0.102 mm	Slight	One	c	257
41	5	PSC Girder G-4	SER	S	Spall	Bottom Flange @ Bay 4 Side	A = 0.09 m²	Slight	One	c	258
42	5	End Diaphragm @ Bay 4/P5	SER	S	Spall	Top of Diaphgram	A = 0.01 m²	Slight	Several	c	259
43	5	PSC Girder G-6	HC	S	Honeycomb	Bottom Flange @ Bay 4 Side	A = 0.05 m²	Slight	One	c	260
44	5	End Diaphragm @ Bay 5/P5	HC	S	Honeycomb	Top of Diaphgram	A = 0.03 m²	Slight	Several	c	261/262
45	5	PSC GIRDER G-7	SER	S	Spall	Top Frange @ Bay 6/P5	A = 0.05 m²	Slight	One	c	263
46	5	End Diapragm @ Bay 6/P5	SER	S	Exposed Rebar	Top of Diaphgram	A = 0.01 m²	Slight	One	c	264
47	5	End Diapragm @ Bay 7/P5	CR	S	Vertical Crack	@ Bay 7/P5	t = 0.127 mm	Slight	One	c	267
48	5	End Diapragm @ Bay 7/P5	SER	S	Exposed Rebar	Near Top	A = 0.01 m²	Slight	One	c	266
49	5	PSC Girder G-9	SER	S	Spall	Bottom Flange @ Bay 7 P5	A = 0.02 m²	Slight	One	c	265
50	5	PSC Girder G-9	SER	S	Spall	Bottom Flange @ Bay 8 P5	A = 0.06 m²	Slight	One	c	270
51	5	End Diapragm @ Bay 9/P5	CR	S	Vertical Crack	Back Face NR G-8/P5	t = 0.173 mm	Slight	One	c	271
52	5	Railing	CR	H	Horizontal Crack	6 m from P4	t = 1.00 mm	Heavy	One	a	367
53	5	Coping	CR	M	Crack	Top of Shear Block @ Pier 5	t = 0.60 mm	Moderate	One	b	275
54	5	End Diaphragm @ Pier 4	HC	M	Honeycomb	Front Face @ Bay 11	A = 0.20 m²	Moderate	One	b	348
55	6	PSC Girder G-10	SER	S	Spall	Bottom Flange @ Bay 10	A = 0.07 m²	Slight	Two	c	170
56	6	Restraining Bar	M	H	Missing	Restraining Bar @ Bay 10	One Bay	Heavy	One	a	171
57	6	PSC Girder G-1'	SER	S	Spall	Bottom Flange @ Bay 10	A = 0.06 m²	Slight	One	c	172
58	6	End Diaphragm @ Pier 6	SER	M	Exposed Rebar	Bottom @ Bay 10	A = 0.12 m²	Moderate	One	b	173
59	6	PSC Girder G-11	SER	S	Spall	Bottom Flange @ Bay 11	A = 0.02 m²	Slight	One	c	174
60	6	Restraining Bar	M	H	Missing	Retraining Bars @ Bay 11	One Bay	Heavy	Two	a	175
61	6	Deck Slab	SER	S	Spall	Bottom of Slab	A = 0.10 m²	Slight	One	c	176
62	6	PSC Girder G-12	SER	S	Spall	Bottom Flange @ Bay 11	A = 0.03 m²	Slight	One	c	177
63	6	Pier 6 Coping	CR	H	Crack	End downstream Side	t = 2.134 mm	Heavy	One	a	178
64	6	PSC Girder G-12	SER	S	Spall	Spalling @ end	A = 0.03 m²	Slight	One	c	179
65	6	Sidewalk slab	CR	H	Crack	Crack @ Bottom	t = 2.261 mm	Heavy	One	a	180
66	6	Pier 6 Coping	SER	M	Exposed Rebars	Down Stream Side	A = 0.15 m²	Moderate	One	b	181/182
67	6	Deck Slab	HC	H	Honey Comb	Bottom of Slab @ Bay 7	A = 1.60 m²	Heavy	One	a	158
68	6	Pier 6 Coping	CR	S	Vertical Crack	Vertical Crack @ Bay 7	t = 0.173 mm	Slight	One	c	159
69	6	PSC Girder G-7	SER	S	Spall	Bottom Flange @ Bay 8	A = 0.08 m²	Slight	One	c	160
70	6	Restraining Bar	M	H	Missing	Restraining Bar @ Bay 8	One Bay	Heavy	Two	a	161
71	6	Deck Slab	HC	H	Honeycomb	Bottom of Slab @ Bay 8	A = 0.45 m²	Heavy	One	a	162
72	6	End Diaphragm @ Pier 6	HC	S	Honeycomb	Bottom Corner @ Bay 8	A = 0.03 m²	Slight	One	c	163
73	6	Pier 6 Coping	CR	S	Vertical Crack	Vertical Crack @ Bay 8	t = 0.254 mm	Slight	One	c	164
74	6	Pier 6 Coping	CR	S	Vertical Crack	Below Girder G-9	t = 0.173 mm	Slight	One	c	165
75	6	PSC Girder G-9	SER	S	Spall	Bottom Flange @ Bay 9	A = 0.02 m²	Slight	One	c	166
76	6	Restraining Bar	M	H	Missing	Restraining Bar @ Bay 9	One Bay	Heavy	Two	a	167
77	6	End Diaphragm	HC	M	Honeycomb	Top and Haunch of Slab	A = 0.12 m²	Moderate	One	b	168
78	6	PSC Girder G-10	SER	S	Spall	Bottom Flange	A = 0.04 m²	Slight	One	c	169
79	6	End Diaphragm	HC	S	Honeycomb	Bottom @ Bay 5	A = 0.10 m²	Slight	One	c	147
80	6	Restraining Bar	M	H	Missing	Restraining Bar at Bay 5	One Bay	Heavy	Two	a	148
81	6	End Diaphragm @ Pier 6	HC	M	Honeycomb	Top and Bottom	A = 0.15 m²	Moderate	Two	b	149
82	6	PSC Girder G-5	SER	S	Spall	TopFlange @ Bay 5	A = 0.04 m²	Slight	Several	c	150

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
83	6	PSC Girder G-6	SER	S	Spall	Bottom Flange @ Bay 5	A = 0.03 m²	Slight	Several	c	151
84	6	PSC Girder G-8	SER	M	Spall	Bottom Flange @ Bay 8	A = 0.28 m²	Moderate	Several	b	152
85	6	Restraining Bar	M	H	Missing	Restraining Bar @ Bay 6	One Bay	Heavy	Two	a	153
86	6	Deck Slab	SER	S	Spall	Bottom of Slab	A = 0.09 m²	Slight	One	c	154
87	6	End Diaphragm at Pier 6	HC	S	Spall	Top	A = 0.06 m²	Slight	One	c	155
88	6	PSC Girder G-7	SER	S	Spall	Bottom Flange @ Bay 6	A = 0.02 m²	Slight	One	c	155
89	6	PSC Girder G-7	SER	S	Spall	Bottom Flange @ Bay 7	A = 0.06 m²	Slight	One	c	156
90	6	Restraining Bar	M	H	Missing	Restraining Bar @ Bay 7	One Bay	Heavy	Two	a	157
91	6	PSC Girder G-3	SER	S	Spall	Top Flange	A = 0.08 m²	Slight	One	c	135
92	6	Pier 6 Coping	CR	M	Vertical Crack	Vertical Cracks @ Bay 2	t = 0.381 mm	Moderate	One	b	136
93	6	Pier 6 Coping	CR	S	Random Cracks	Below Girder G-3	t = 0.229 mm	Slight	One	c	137
94	6	PSC Girder G-3	SER	S	Spall	Bottom Flange near end of Girder	A = 0.08 m²	Slight	One	c	138
95	6	Restraining Bar @ Pier 6	M	H	Missing	Restraining Bar @ Bay 3	One Bay	Heavy	One	a	139
96	6	PSC Girder G-4	SER	M	Spall	Bottom Flange	A = 0.125 m²	Moderate	One	b	140
97	6	End Diaphragm @ Pier 6	HC	S	Honeycomb	Bottom @ Bay 4	A = 0.02 m²	Slight	One	c	141
98	6	End Diaphragm @ Pier 6	HC	S	Honeycomb	Top @ Bay 4	A = 0.016 m²	Slight	One	c	142
99	6	PSC Girder G-5	SER	M	Spall	Bottom Flange @ Bay 4	A = 0.15 m²	Moderate	One	b	143
100	6	Restraining Bar	M	H	Missing	Restraining Bars @ Bay 4	One Bay	Heavy	One	a	144
101	6	PSC Girder G-5	SER	S	Spall	Spalling @ Bottom	A = 0.01 m²	Slight	One	c	146
102	6	End Diaphragm	HC	S	Honeycomb	Upstream Side	A = 0.03 m²	Slight	One	c	123
103	6	Sidewalk slab	HC	S	Honeycomb	Bottom	A = 0.070 m²	Slight	One	c	124
104	6	Pier 6 Coping	SER	S	Spall	Edge Upstream Side	A = 0.02 m²	Slight	One	c	125
105	6	PSC Girder G-1	SER	S	Spall	Bottom Flange near end of Girder	A = 0.02 m²	Slight	One	c	126
106	6	PSC Girder G-1	SER	S	Spall	Bottom Flange	A = 0.05 m²	Slight	One	c	127
107	6	PSC Girder G-1	SER	S	Spall	Bottom of Girder	A = 0.04 m²	Slight	One	c	128
108	6	PSC Girder G-1	SER	H	Spall	Top flange @ Bay 1	A = 0.40 m²	Heavy	One	a	129
109	6	Pier 6 Coping	CR	S	Vertical & Horizontal Crack	Face of Coping @ U/S	t = 0.076 mm	Slight	One	c	130
110	6	PSC Girder G-2	SER	S	Spall	Bottom Flange @ Bay 1	A = 0.05 m²	Slight	One	c	131
111	6	Restraining Bar @ Pier 6	M	H	Missing	Restraining Bar @ Bay 10	One Bay	Heavy	One	a	132
112	6	PSC Girder G-2	SER	S	Spall	Bottom Flange @ Bay 2	A = 0.08 m²	Slight	One	c	133
113	6	Restraining Bar @ Pier 6	M	H	Missing	Restraining Bar @ Bay 2	One Bay	Heavy	One	a	134
114	6	Sidewalk slab	HC	M	Honeycomb	Bottom of Slab	A = 0.16 m²	Moderate	One	b	279
115	6	Restraining Bar @ Pier 5	M	H	Missing	Restraining Bar @ Bay 10	One Bay	Heavy	Two	a	281
116	6	PSC Girder G-1	SER	M	Spall	Top flange @ Bay 1	A = 0.175 m²	Moderate	One	b	283
117	6	Coping	CR	M	Random Cracks	Fracture @ Bay 4	t = 0.33 mm	Moderate	Several	b	297
118	6	PSC Girder G-6	SER	M	Spall	Bottom Flange @ Bay 5	A = 0.15m²	Moderate	One	b	300
119	6	PSC Girder G-8	SER	M	Spall	End Block @ Bay 8	A = 0.15m²	Moderate	One	b	305
120	6	PSC Girder G-9	SER	M	Spall	Bottom Flange @ Bay 8	A = 0.10m²	Moderate	One	b	307
121	6	PSC Girder G-12	CR	H	Random Cracks	Ext. Face of End Block	t = 0.405 mm	Heavy	Several	a	316
122	6	Pier 5 Coping	CR	H	Random Cracks	Front Face Near End	t = 0.610 mm	Heavy	Several	a	318
123	6	Pier 5 Coping	CR	H	Vertical Cracks	End of Coping @ Downstream	t = 1.194 mm	Heavy	One	a	319
124	7	End Diaphragm @ Bay 5	HC	S	Honeycomb	Bottom of Diaphragm	A = 0.020 m²	Slight	One	c	203
125	7	Deck Slab @ Bay 5	CR	S	Random Cracks	Bottom of Slab	t = 0.149 mm	Slight	Several	c	204
126	7	Pier 7 Coping	SER	S	Exposed Rebar	Back Face @ Bay 5	A = 0.020 m²	Slight	One	c	205
127	7	Restraining Bar @ Bay 4	M	H	Missing	End Diaphgram	One Bay	Heavy	Two	a	206
128	7	Deck Slab @ Bay 4	CR	S	Random Cracks	Bottom of Slab	t = 0.102 mm	Slight	Several	c	207
129	7	End Diaphragm @ Bay 4	HC	S	Honeycomb	At Joint w/ Girder	A = 0.06 m²	Slight	One	c	208
130	7	PSC Girder G-4	SER	S	Spall	Bottom Flange	A = 0.01 m²	Slight	One	c	209
131	7	End Diaphragm @ Pier 7	HC	M	Honeycomb	Bottom Flange	A = 0.11 m²	Moderate	One	b	210
132	7	Deck slab @ Bay 3	CR	S	Random Cracks	Bottom of Slab	t = 0.076 mm	Slight	Several	c	211
133	7	End Diaphragm @ Bay 2	HC	M	Honeycomb	At Joint w/ Girder	A = 0.12 m²	Moderate	One	b	212
134	7	Deck Slab @ Bay 2	SER	M	Exposed Rebar	Construction Joint	A = 0.14 m²	Moderate	Two	b	213
135	7	Deck slab @ Bay 1	CR	S	Random Cracks	Bottom of Slab	t = 0.129 mm	Slight	Several	c	214
136	7	End Diaphragm @ Bay 1	SER	S	Spall	Top pf Diaphgram @ Corner	A = 0.02 m²	Slight	One	c	215
137	7	End Diaphragm @ Bay 1	CR	S	Horizontal Crack	Back Face	t = 0.03 mm	Slight	One	c	216
138	7	End Diaphragm @ Bay 1	HC	M	Honeycomb	Back Face	A = 0.26 m²	Moderate	One	b	217
139	7	Deck Slab @ Bay 1	SER	M	Exposed Rebar	Bottom of Slab	A = 0.12 m²	Moderate	One	b	218
140	7	PSC Girder G-1	SER	S	Spall	Bottom Flange	A = 0.03 m²	Slight	One	c	219
141	7	Sidewalk	SER	S	Exposed Rebar	Above P 7	A = 0.002 m²	Slight	One	c	368
142	8	Pier 7 Coping	CR	S	Horizontal Crack	End of Coping Downstream	t = 0.173 mm	Slight	One	c	183
143	8	Pier 7 Coping	CR	S	Vertical Crack	Front Face Bay 11	t = 0.203 mm	Slight	One	c	184
144	8	Pier 7 Coping	CR	S	Random Cracks	Front Face Bay 11	t = 0.207 mm	Slight	Three	c	185
145	8	Deck Slab	CR	S	Random Cracks	Bottom of Slab & Haunch	t = 0.102 mm	Slight	Many	c	186

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
146	8	End Diaphragm @ Pier 7	CR	S	Horizontal Crack	Top pf Diaphgram @ Bav 11	t = 0.127 mm	Slight	One	c	183
147	8	Restraining Bar @ Bay 11	CO	H	Corrosion	Pipe Sleeve	Reduction in Cross Section	Heavy	Two	a	187
148	8	End Diaphragn @ Bay 11	HC	S	Honeycomb	Construction Joint @ Top	A = 0.10 m²	Slight	One	c	188
149	8	Pier 7 Coping	CR	S	Vertical Crack	Front Face @ Bay 10	t = 0.127 mm	Slight	Two	c	189
150	8	Pier 7 Coping	CR	S	Random Cracks	Front Face Below Girder G-10	t = 0.127 mm	Slight	Many	c	191
151	8	Restraining Bar @ Bay 10	B/R	H	Fracture	Pipe Sleeve	Borken due to Corrosion	Heavy	Two	a	192
152	8	End Diaphragm @ Pier 10	HC	S	Honeycomb	Construction Joint @ Top	A = 0.06 m²	Slight	One	c	193
153	8	PSC Girder 6 - 11	CR	S	Diagonal Crack		t = 0.127 mm	Slight	One	c	
154	8	Deck slab @ Bay 10	CR	S	Random Cracks	Bottom of Slab	t = 0.108 mm	Slight	Several	c	
155	8	Pier 7 Coping	CR	S	Vertical Crack	Front Face Bay 9	t = 0.108 mm	Slight	One	c	194
156	8	End Diaphragm @ Bay 9	M	M	No Holes for Restraining	@ Pier 8		Moderate	One	b	195
157	8	Deck slab @ Bay 9	CR	S	Random Cracks	Bottom of Slab	t = 0.108 mm	Slight	Several	c	196
158	8	End Diaphragm @ Bay 9	CR	S	Random Cracks	Hunch/Fillet	t = 0.108 mm	Slight	Several	c	
159	8	Restraining Bar @ Bay 8	CO	H	Corrosion	End	Reduction in Cross Section	Heavy	Two	a	197
160	8	PSC Girden G-8	CR	S	Diagonal Crack	End Block	t = 0.102 mm	Slight	Several	c	
161	8	Deck Slab @ Bay 8	CR	S	Random Cracks	Bottom of Slab	t = 0.102 mm	Slight	Several	c	
162	8	Pier 7 Coping	CR	S	Vertical Crack	Front Face @ Bay 7	t = 0.152 mm	Slight	One	c	198
163	8	Restraining Bar @ Bay 7	M	H	Missing Restraining Bars	End Diaphragm	One Bay	Heavy	Two	a	199
164	8	Deck Slab @ Bay 7	CR	S	Random Cracks	Bottom of Slab	t = 0.127 mm	Slight	Several	c	200
165	8	Pier 7 Coping	HC	M	Honeycomb	Face of Soffit	A = 0.12 m²	Moderate	One	b	201
166	8	Pier 8 Coping	CR	S	Cracks	Below Girder G-11	t = 0.127 mm	Slight	Two	c	93
167	8	Pier 8 Coping	CR	S	Cracks	Bay 11	t = 0.107 mm	Slight	One	c	94
168	8	PSC Girder	HC	H	Honeycomb	Bottom	A = 0.47 m²	Heavy	One	a	95
169	8	Sidewalk Slab	CR	S	Crack	Bottom	t = 0.254 mm	Slight	One	c	96
170	8	Pier 8 Column	CR	S	Vertical at Column	One Upstream Face	t = 0.229 mm	Slight	One	c	97
171	8	Pier 8 Coping	SER	H	Insufficient Conc.	Bottom	A = 0.23 m²	Heavy	One	a	98
172	8	Pier 8 Column - 2	CR	S	Horizontel Crack	Bottom of Coping	t = 0.203 mm	Slight	One	c	99
173	8	Pier 8 Coping	CR	S	Vertical Crack	Bay 4	t = 0.076 mm	Slight	One	c	81
174	8	End Diaphragm at Pier 8	HC	M	Honeycomb	Top near Bottom of Slab	A = 0.15 m²	Moderate	One	b	82
175	8	End Diaphragm at Pier 8	SER	S	Exposed Rebar	Bottom	A = 0.06 m²	Slight	One	c	83
176	8	Restraining Bar	M	H	Missing Restraining Bar	near Girder G-5	One Bay	Heavy	One	a	84
177	8	Deck Slab	HC	H	Honeycomb	Bottom of Bay 4	A = 0.54 m²	Heavy	One	a	85
178	8	Pier 8 Coping	CR	S	Vertical Crack	Bay 5	t = 0.173 mm	Slight	One	c	86
179	8	Restraining Bar	M	H	Missing	Restraining Bar & Missing nut at Bay 5	One Bay	Heavy	One	a	87
180	8	End Diaphragm	FR	S	Fractured	Bay 6	A = 0.08 m²	Slight	One	c	88
181	8	PSC Girder G-9	SER	S	Spall	Bottom Flange near end of Girder	A = 0.01 m²	Slight	One	c	89
182	8	Pier 8 Coping	CR	M	Crack	Bay 10	t = 0.559 mm	Moderate	One	b	90
183	8	End Diaphragm/Slab @ Pier 8	CR	S	Horizontal Crack	Haunch @ Bay 10	t = 0.254 mm	Slight	One	c	91
184	8	End Diaphragm/Slab @ Pier 8	CR	S	Horizontal Crack	Haunch @ Bay 9	t = 0.076 mm	Slight	One	c	92
185	8	Pier 8 Coping	CR	S	Crack	End Upstream Side	t = 0.076 mm	Slight	One	c	70
186	8	End Diaphragm/Slab @ Pier 8	HC	H	Damaged Portion	Honey Comb	A = 1.09 m²	Heavy	One	a	71
187	8	Deck Slab Bay 1	CR	S	Random Cracks	Bottom	t = 0.203 mm	Slight	Several	c	72
188	8	Pier 8 Coping	CR	S	Crack	Back Face at Bay 1	t = 0.102 mm	Slight	One	c	73
189	8	End Diaphragm/Slab @ Pier 8	CR	H	Horizontal Crack	Top of Daphgram @ Bay 1	t = 0.635 mm	Heavy	One	a	
190	8	Pier 8 Coping	CR	S	Vertical Crack	Bay 1	t = 0.254 mm	Slight	One	c	74
191	8	Pier 8 Coping	CR	S	Cracks	Back Face below Girder G-2	t = 0.072 mm	Slight	Two	c	75
192	8	Pier 8 Coping	CR	S	Crcks	Back Face at Bay 2	t = 0.254 mm	Slight	One	c	76
193	8	Restraining Bar	FR	H	Fractured Restraining Bar	Near Girder G-3	Borken due to Corrosion	Heavy	One	a	77
194	8	Deck Slab	CR	S	Random Cracks	Bottom at Bay 2	t = 0.046 mm	Slight	Several	c	78
195	8	Pier 8 coping	CR	S	Vertical Crack	Bay 3	t = 0.102 mm	Slight	One	c	79
196	8	End Diaphragm	SER	S	Spall	Near Girder G-3	A = 0.06 m²	Slight	One	c	80
197	9	PSC Girder G-4	CR	M	Crack	End Block Upstream Side	t = 0.229 mm	Moderate	Two	b	54
198	9	Pier 9 Coping	CR	S	Crack	Bay 3	t = 0.076 mm	Slight	One	c	55
199	9	Drain Pipe at Pier 9	M	S	Missing	End Cap Missing		Slight	One	c	56
200	9	Pier 9 Coping	CR	S	Horizontal Crack	Joint of End Block & Coping	t = 0.076 mm	Slight	One	c	57
201	9	Pier 9 Coping	SER	H	Thin Concrete Cover	Bottom	A = 3.0 m²	Moderate	One	a	58
202	9	PSC Girder G-12	CR	M	Horizontal Crack	End Block	t = 0.331 mm	Moderate	Several	b	42
203	9	Pier 9 Coping	CR	S	Vertical Crack	Below Girder G-12	t = 0.064 mm	Slight	One	c	43
204	9	Pier 9 Coping	CR	M	Crack	Front Face at Bay 11	t = 0.33 mm	Moderate	One	b	44
205	9	Restraining Bar	B/R	H	Cut-off Restraining Bar	Bay 11	One Bay	Heavy	One	a	45
206	9	Pier 9 Coping	CR	S	Vertical Crack	Front Face at Bay 10	t = 0.072 mm	Slight	One	c	46
207	9	Pier 9 Coping	CR	S	Vertical Crack	Bay 10	t = 0.152 mm	Slight	Done	c	47
208	9	Pier 9 Coping	CR	S	Crack	Bay 9	t = 0.076 mm	Slight	One	c	48

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
							Description of Damage				
209	9	Pier 9 Coping	CR	S	Crack	Bay 9	t = 0.064 mm	Slight	One	c	49
210	9	Pier 9 Coping	CR	S	Cracks	Bay 7	t = 0.102 mm	Slight	One	c	50
211	9	Pier 9 Coping	CR	S	Cracks	Bay 5	t = 0.102 mm	Slight	Two	c	51/52
212	9	PSC 9 Girder G-4	CR	S	Cracks	Near end block	t = 0.102 mm	Slight	One	c	52a
213	9	Pier 9 Coping	CR	S	Cracks	Bay 4	t = 0.152 mm	Slight	Two	c	53
214	9	Pier 8 Coping	SER	S	Spall	Bay 5	A = 0.009 m²	Slight	One	c	30
215	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 4	t = 0.064 mm	Slight	One	c	31
216	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 3	t = 0.102 mm	Slight	One	c	32
217	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 3	t = 0.127 mm	Slight	One	c	33
218	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 2	t = 0.102 mm	Slight	One	c	34
219	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 2	t = 0.127 mm	Slight	One	c	35
220	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 2	t = 0.173 mm	Slight	One	c	36
221	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 1	t = 0.229 mm	Slight	One	c	37
222	9	Pier 8 Coping	CR	S	Horizontal Crack	End Block & Coping	t = 0.102 mm	Slight	One	c	38
223	9	End Diaphragm at Pier 8	FL	S	Presence of Lime	Bay 1 3-11	A = 0.01 m²	Slight	One	c	39
224	9	Deck Slab	HC	S	Honeycomb	Bottom of Slab @ Bay 2	A = 0.02 m²	Slight	One	c	40
225	9	Pier 8 Coping	SER	S	Exposed Rebar	Bottom of Coping @ Bay 8	A = 0.01 m²	Slight	One	c	41
226	9	Pier 8 Coping	SER	S	Spall	End of Coping	A = 0.05 m²	Slight	One	c	19
227	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face	t = 0.102 mm	Slight	One	c	20
228	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 11	t = 0.102 mm	Slight	One	c	21
229	9	Pier 8 Coping	CR	S	Vertical Crack	Front Face @ Bay 11	t = 0.076 mm	Slight	One	c	22
230	9	Pier 8 Coping	CR	S	Cracks	Front Face @ Bay 10	t = 0.127 mm	Slight	Several	c	23/24
231	9	Pier 8 Coping	CR	S	Cracks	Front Face @ Bay 9	t = 0.173 mm	Slight	Several	c	25/26
232	9	Pier 8 Coping	CR	S	Cracks	Front Face @ Bay 7	t = 0.076 mm	Slight	Several	c	27/28
233	9	Pier 8 Coping	CR	S	Cracks	Front Face @ Bay 6	t = 0.076 mm	Slight	Several	c	29
234	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 11	t = 0.229 mm	Slight	One	c	220
235	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 11	t = 0.203 mm	Slight	Two	c	221
236	10	Restraining Bar	M	H	Missing	End Down @ Bay 11	One Bay	Heavy	Two	a	222
237	10	End Diaphragm	SER	S	Exposed Rebar	Front Face NR Bottom	A = 0.01 m²	Slight	One	c	223
238	10	Deck Slab @ Bay 11	CR	S	Random Cracks	Bottom of Slab	t = 0.173 mm	Slight	Several	c	224
239	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 11	t = 0.102 mm	Slight	Two	c	225
240	10	End Diaphragm @ Bay 7	HC	S	Honeycomb	Front Face @ Bay 7	A = 0.09 m²	Slight	Several	c	226
241	10	Deck Slab @ Bay 7	CR	S	Diagonal Crack	Bottom of Slab	t = 0.152 mm	Slight	One	c	227
242	10	Drain Pipe	SER	S	Missing End Cap	NR Girder G-7	One Portion	Slight	One	c	228
243	10	Pier 9 Coping	CR	S	Diagonal Crack	Corner of Riser @ Bay 6	t = 0.102 mm	Slight	One	c	229
244	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 5	t = 0.254 mm	Slight	One	c	230
245	10	Deck Slab @ Bay 5	CR	S	Random Cracks	Bottom of Slab	t = 0.203 mm	Slight	Several	c	231
246	10	End Diaphragm @ Bay 5	CR	S	Horizontal Crack	Front Face @ Bay 5	t = 0.257mm	Slight	One	c	
247	10	PSC Girder G-5	SER	S	Spall	Bottom Flange	A = 0.01 m²	Slight	One	c	232
248	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 4	t = 0.103 mm	Slight	One	c	233
249	10	Deck Slab @ Bay 3	HC	S	Honeycomb	Bottom of Slab @ Bay 3	A = 0.04 m²	Slight	One	c	234
250	10	Deck Slab @ Bay 3	CR	S	Random Cracks	Bottom of Slab	t = 0.103 mm	Slight	One	c	235
251	10	Deck Slab @ Bay 2	CR	S	Random Cracks	Bottom of Slab	t = 0.103 mm	Slight	Several	c	236
252	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 2	t = 0.203 mm	Slight	Several	c	237
253	10	Abutment B Wall	CR	S	Vertical Crack	Bay 5	t = 0.162 mm	Slight	One	c	111
254	10	Abutment B	CR	S	Vertical Crack	Bay 4	t = 0.187 mm	Slight	One	c	112
255	10	Abutment B	CR	S	Vertical Crack	Bay 3	t = 0.173 mm	Slight	One	c	113
256	10	Abutment B	CR	S	Vertical Crack	Bay 3	t = 0.203 mm	Slight	One	c	115
257	10	End of Diaphragm @ Abut. B	HC	M	Honeycomb	Bottom @ Bay 3	A = 0.18 m²	Moderate	One	b	114
258	10	Abutment B	CR	S	Vertical Crack	Bay 2 near Girder G-2	t = 0.132 mm	Slight	One	c	116
259	10	Abutment B	CR	S	Vertical Crack	Bay 2 near Girder G-2	t = 0.152 mm	Slight	One	c	117
260	10	Deck Slab	CR	S	Crack	Bottom @ Bay 2	t = 0.173 mm	Slight	One	c	118
261	10	Abutment B	CR	S	Vertical Crack	Bay 1	t = 0.254 mm	Slight	One	c	119
262	10	Abutment B	CR	S	Vertical Crack	Bay 1	t = 0.173 mm	Slight	One	c	120
263	10	Restraining Bar	B/R	H	Fractured Restraining Bar	Bay 1 near Girder G-1	One Bay	Heavy	One	a	121
264	10	Abutment B	CR	S	Horizontal Crack	Upstream Side	t = 0.076 mm	Slight	One	c	122
265	10	Abutment B	CR	H	Vertical Crack	Bay 4	t = 0.61 mm	Heavy	One	a	100
266	10	End Diaphragm @ Abut. B	HC	S	Honeycomb	Near Girder G-12	A = 0.06 m²	Slight	One	c	101
267	10	End Diaphragm @ Abut. B	HC	S	Honeycomb	Near Girder G-9	A = 0.02 m²	Slight	One	c	102
268	10	Abutment B Wall	CR	H	Vertical Crack	Bay 9	t = 0.61 mm	Heavy	One	a	103
269	10	End Diaphragm @ Abut. B	HC	S	Honeycomb	Bottom @ Bay 9	A = 0.04 m²	Slight	One	c	104
270	10	End Diaphragm @ Abut. B	HC	S	Honeycomb	Bay 8	A = 0.12 m²	Slight	One	c	105
271	10	End Diaphragm @ Abut. B	HC	S	Honeycomb	Bay 7	A = 0.12 m²	Slight	One	c	106

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/Pattern	Scale	Severity	No. of Damages		
272	10	Restraining Bar	B/R	H	Fractured Restraining Bar	Bay 6	One Bay	Heavy	One	a	107
273	10	End Diaphragm	HC	S	Cavity	Bay 6	A = 0.001 m²	Slight	One	c	108
274	10	Abutment B	CR	M	Crack	Bay 6	t = 0.457 mm	Moderate	Several	b	109
275	10	Deck Slab	CR	S	Crack	Bottom @ Bay 5	t = 0.203 mm	Slight	One	c	110
276	10	Abutment B	CR	S	Vertical Crack	Bay 5	t = 0.152 mm	Slight	One	c	111
277	10	Deck Slab @ Bay 2	SER	M	Exposed Rebar	Bottom Slab Corner	A = 0.16 m²	Moderate	One	b	238
278	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 2	t = 0.173 mm	Slight	One	c	239
279	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 1	t = 0.102 mm	Slight	One	c	240
280	10	Deck Slab @ Bay 1	CR	S	Random Cracks	Bottom of Slab	t = 0.103 mm	Slight	Several	c	241
281	10	End Diaphragm	CR	M	Vertical Crack	Front Face @ Bay 1	t = 0.483 mm	Moderate	One	b	242
282	10	End Diaphragm	CR	M	Random Cracks	Front Face @ Bay 1	t = 0.381 mm	Moderate	Several	b	243
283	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 1	t = 0.203 mm	Slight	Two	c	244
284	10	Drain Pipe	M	S	Missing End Cap	Drain Pipe @ Bay 1	One Portion	Slight	One	c	245
285	10	Pier 9 Coping	CR	S	Horizontal Crack	Joint with Shear Block @ End	t = 0.152 mm	Slight	One	c	246
286	10	Sidewalk Slab	HC	S	Honeycomb	Bottom	A = 0.09 m²	Slight	One	c	247
287	10	Sidewalk Slab	CR	S	Diagonal Crack	Near Const. JE	t = 0.173 mm	Slight	One	c	248
288	10	Shear Block @ End of Coping	SER	S	Spall	Inner Face @ Mid Length	A = 0.06 m²	Slight	One	c	249
289	10	Pier 9 Coping	CR	S	Vertical Crack	Front Face @ Bay 4	t = 0.152 mm	Slight	One	c	250
290	App. A	Sidewalk Downstream Side	F/C	S	Faulting on Sidewalk Slab	Settlement of Approach	t = 5 mm	Slight	One	c	68
291	App. A	Sidewalk	F/C	S	Faulting	Settlement of Sidewalk	t = 8 mm	Slight	One	c	69
292	App. A	Pavement	CR	S	Transverse Crack	8 m. from Abut. "A"	t = 1.2 mm	Slight	Two	c	352
293	App. A	Pavement	CRPL	H	Pothole	8 m. from Abut. "A"	36 mm ø	Heavy	Several	a	353
294	App. A	Sidewalk	CR	S	Transverse Crack	4 m. from Abut. "A"	t = 2.00 mm	Slight	One	c	354
295	App. A	Pavement	CR	S	Transverse Crack	4 m. from Abut. "A"	t = 3.00 mm	Slight	One	c	363
296	App. A	Sidewalk	CR	H	Transverse Crack	0.7 m from Abut. "A"	t = 3.00 mm	Slight	One	c	364
297	App. B.	Sidewalk	F/C	M	Faulting	Abut. "B"	d = 30 mm	Moderate	One	b	362
298	App. B.	Sidewalk/PCCP	F/C	S	Settlement	2 m. from Abut. "B"	d = 15 mm	Slight	One	c	369
299	App. B.	Railing	SER	S	Exposed Rebar	2 m. from Abut. "B"	A = 0.001 m²	Slight	One	c	370

Date of Inspe Nov. 27 / Dec. 19-20, 2002
Inspector   R. Quiwa/J. Abadam
Checker   J. B. Agnes

Name of Bridge :   Pa11 BAMBANG BRIDGE

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Narure	Location/Pattern	Scale	Severity	No. of Damages		
1	1	Abut. A / Coping	CR	M	Horizontal Crack	Abut. End U/S near G-1	t = 0.450 mm	Moderate	Several	b	1
2	1	PSC Girder G-1 (Channel Beam)	CR	S	Diagonal Crack Right	Web near end diaph. @ Bay 1	t = 0.20 mm	Slight	One	c	2
3	1	End Diaphragm @ Abut. A	SER	S	Exposed Rebar	Bottom @ Bay 1	A = 0.003 m²	Slight	One	c	3
4	1	End Diaphragm @ Abut. A	CR	H	Diagonal Crack	Under G-2	t = 1.80 mm	Heavy	One	a	4
5	1	End Diaphragm @ Abut. A	CR	H	Diagonal Crack	Under G-3	t = 1.0 mm	Heavy	One	a	5
6	1	PSC Girder G-4	SER	S	Spall	Top Flange @ Bay 3	A = 0.01 m²	Slight	One	c	6
7	1	End Diaphragm @ Abut. A	SER	S	Exposed Rebar	@ Bay 4	A = 0.03 m²	Slight	One	c	7
8	1	End Diaphragm @ Abut. A	SER	S	Exposed Rebar	Under G-7	A = 0.12 m²	Slight	One	c	8
9	1	Abut. A / Coping	CR	H	Random Cracks	Coping Face near G-7	t = 1.50 mm	Heavy	One	a	9
10	1	End Diaphragm @ Abut. A	SER	S	Exposed Rebar	@ Bay 7	A = 0.001 m²	Slight	Several	c	10
11	1	End Diaphragm @ Abut. A	CR	H	Diagonal Crack	Under G-8	t = 0.90 mm	Heavy	One	a	11
12	1	Abut. A / Coping	CR	S	Random Cracks	Coping Face D/S near G-8	t = 0.30 mm	Slight	One	c	12
13	1	Back Wall @ Abut. A	CR	M	Vertical Crack	Near G-8	t = 0.50 mm	Moderate	Several	b	13
14	1	PSC Girder	SER	M	Exposed Rebar	Top Flange @ D/S	A = 0.15 m²	Moderate	One	b	14
15	1	End Diaphragm @ Pier 1	SER	S	Random Crack & Exposed Rebar	@ Bay 2	A = 0.02 m²	Slight	One	c	15
16	1	Coping @ Pier 1	CR	S	Vertical Crack	Coping Face under G-3	t = 0.20 mm	Slight	One	c	16
17	1	End Diaphragm @ Pier 1	SER	S	Exposed Rebar	@ Bay 4	A = 0.09 m²	Slight	One	c	17
18	1	End Diaphragm @ Pier 1	SER	S	Exposed Rebar	@ Bay 5	A = 0.03 m²	Slight	Two	c	18
19	1	End Diaphragm @ Pier 1	SER	M	Exposed Rebar	@ Bay 6	A = 0.102 m²	Moderate	One	b	19
20	1	End Diaphragm @ Pier 1	SER	S	Exposed Rebar	Bottom @ Bay 7	A = 0.009 m²	Slight	One	c	20
21	1	Coping @ P1	HC	S	Honeycomb	Bottom near G-8	A = 0.09 m²	Slight	One	c	21
22	1	Underside of Sidewalk @ P1	CR	S	Transverse Crack	Bottom from Exp. JE	t = 0.20 mm	Slight	Several	c	22
23	1	Expansion Joint @ Abutment A	SER	M	Spall, No Gap	End of Slab & Approach Slab	A = 0.28 m²	Moderate	Whole	b	94/98
24	1	Expansion Joint @ Pier 1	SER	M	Spall, No Gap	End of Slab	A = 0.25 m²	Moderate	Whole	b	95
25	1	Deck Slab	CR	S	Random Cracks	Top of Slab of Span 1	t = 0.300 mm	Slight	Many	c	96
26	1	Deck Slab	CR	H	Transverse Cracks	Top of Slab	t = 1.000 mm	Heavy	Three	a	99
27	1	Deck Slab	CRPL	M	Rutting	Top of Slab	L = 32 mm	Moderate	One	b	100
28	1	Sidewalk Slab	CRPL	H	Pothole	Slab	428 mm ø	Heavy	Two	a	101
29	1	Deck Slab	CR	S	Random Cracks	Top of Slab	t = 0.076 mm	Slight	Several	c	124
30	1	Sidewalk	CR	S	Transverse Crack w/ spall	Top of Slab	t = 0.015 mm	Slight	One	c	125
31	2	@ Pier 1 PSC Girder G-1 (Channel)	CR	S	Vertical Crack	Front Face @ Bay 1	t = 0.20 mm	Slight	One	c	23

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
32	2	Restraining Bar @ Pier 1	L/M	S	Loose	Diaph. @ Bay 1	One Portion	Slight	One	c	24
33	2	End Diaphragm @ Pier 1	SER	S	Exposed Rebar	Front Face @ Bay 4	A = 0.01 m²	Slight	One	c	25
34	2	End Diaphragm @ Pier 1	CR	S	Random Cracks	Front Face @ Bay 5	t = 0.25 mm	Slight	Several	c	26
35	2	End Diaphragm @ Pier 1	SER	S	Exposed Rebar	Front Face @ Bay 6	A = 0.06 m²	Slight	One	c	27
36	2	End Diaphragm @ Pier 1	CR	S	Random Cracks	Front Face @ Bay 7	t - 0.25 mm	Slight	Several	c	
37	2	End Diaphragm @ Pier 1	SER	S	Exposed Rebar	Front Face @ Bay 5	A = 0.09 m²	Slight	One	c	28
38	2	End Diaphragm @ Pier 1	CR	S	Vertical Crack	Front Face @ G-7	t = 0.25 mm	Slight	One	c	29
39	2	End Diaphragm @ Pier 1	CR	S	Random Cracks	Front Face @ G-8	t = 0.25 mm	Slight	Several	c	30
40	2	PSC Girder G-8 @ P-1	CR	H	Diagonal Crack	Inner Face of Outer Web	t = 0.45 mm	Heavy	One	a	31
41	2	PSC Girder G-5 @ P-1	CR	S	Longitudinal Crack	Top Flange	t = 0.20 mm	Slight	One	c	32
42	2	End Diaphragm @ Pier 2	CR	M	Random Cracks	Diaph. Under G-5	t = 0.40 mm	Moderate	Several	b	33
43	2	End Diaphragm @ Pier 2	CR	H	Horizontal Cracks	Diaph. under G-6	t = 1.50 mm	Heavy	One	a	34
44	2	End Diaphragm @ Pier 2	CR	S	Random Cracks	Diaph. under G-7	t = 0.30 mm	Slight	Several	c	
45	2	End Diaphragm @ Pier 2	CR	M	Random Cracks	Diaph. under G-8	t = 0.60 mm	Moderate	One	b	35
46	2	Interm. Diaph.	CR	S	Crack	Bottom	t = 0.25 mm	Slight	Several	c	
47	2	Expansion Joint @ Pier 2	CRPL	M	Fracture, No Gap	End of Slab	A = 0.03 m2	Moderate	Whole	b	97
48	2	Deck Slab	CR	S	Random Cracks	Top of Slab	t = 0.300 mm	Slight	Many	c	102
49	3	PSC Girder G-1 @ Pier 3	SER	S	Spall	Bottom Flange	A = 0.05 m2	Slight	Two	c	102a
50	3	Deck Slab @ Pier 3	SER	H	Exposed Rebar	Bottom	A = 0.35 m2	Heavy	One	a	103a
51	3	End Diaphragm @ Pier 3	HC	S	Honeycomb	Bottom	A = 0.10 m2	Slight	One	c	104a
52	3	End Diaphragm @ Pier 3	CR	M	Diagonal Crack	Back Face @ Bay 1	t = 0.550 mm	Moderate	Two	b	104a
53	3	End Diaphragm @ Pier 3	CR	M	Diagonal Crack	Back Face @ Bay 2	t = 0.450 mm	Moderate	One	b	
54	3	End Diaphragm @ Pier 3	CR	M	Diagonal & Vertical Crack	Back Face @ Bay 3	t = 0.500 mm	Moderate	Two	b	105a
55	3	PSC Girder G-1,G-2 & G-3 @ Pier 3	CR	H	Horizontal Crack	End Block @ Both Sides	t = 0.550 mm	Heavy	One	a	106a
56	3	Cantilever Slab	CR	S	Transverse Crack	Near Pier 4	t = 0.076 mm	Slight	One	c	107a
57	3	PSC Girder G-4 @ Pier 3	CR	S	Diagonal Crack	End Block @ Both Sides	t = 0.150 mm	Slight	One (Each Side)	c	108a
58	3	Sidewalk	SER	S	Exposed Rebar	Near Curb	A = 0.05 m2	Slight	One	c	126
59	3	Deck Slab	CR	S	Random Cracks	Top of Slab	t = 0.300 mm	Slight	Many	c	103
60	3	Deck Slab	SER	H	Spall w/ Pothole	Const. Joint	A = 5.0 m2	Heavy	One	a	127
61	4	PSC Girder G-1 @ Pier 4	CR	S	Diagonal Crack	End Block @ P4	t = 0.150 mm	Slight	One (Each Side)	c	90a
62	4	Coping @ Pier 4	CR	S	Vertical Crack	Back Face under G-1	t = 0.200 mm	Slight	One	c	91a
63	4	End Diaphragm @ Pier 4	CR	M	Diagonal Crack	Back Face @ Bay 1	t = 4.000 mm	Moderate	One	b	92a
64	4	End Diaphragm @ Pier 4	HC	S	Honeycomb	Back Face @ Bay 1	A = 0.04 m2	Slight	One	c	93a
65	4	PSC Girder G-2 @ Pier 4	SER	M	Spall	Bottom Flange	A = 0.20 m2	Moderate	One	b	94a
66	4	PSC Girder G-2 @ Pier 4	CR	H	Diagonal Crack	End Block	t = 0.500 mm	Heavy	One (Each Side)	a	95a
67	4	End Diaphragm @ Pier 4	HC	S	Honeycomb	Bottom	A = 0.01 m2	Slight	One	c	96a
68	4	PSC Girder G-3 @ Pier 4	CR	H	Diagonal Crack	End Block	t = 0.600 mm	Heavy	One (Each Side)	a	97a
69	4	End Diaphragm @ Pier 4	CR	M	Crack	Back Face @ Bay 3	t = 0.600 mm	Moderate/Slight	One	b	98a
70	4	PSC Girder G-4 @ Pier 4	CR	S	Horizontal Crack	End Block @ P4	t = 0.200 mm	Slight	One (Each Side)	c	99a
71	4	Underside of Sidewalk @ Pier 4	CR	S	Transverse Crack	Bottom	t = 0.300 mm	Slight	Several	c	100a
72	4	PSC Girder G-4 @ Pier 4	SER	S	Spall	Bottom Flange @ P4	A = 0.04 m2	Slight	One	c	101a
73	4	End Diaphragm @ Pier 3	HC	M	Honeycomb	@ Bay 3	A = 0.23 m2	Moderate	One	b	155
74	4	Coping @ Pier 3	SER	M	Exposed Rebar	End of Coping	A = 0.15 m2	Moderate	One	b	153
75	4	PSC Girder G-4 @ Pier 3	CR	S	Horizontal Crack	Web	t = 0.150 mm	Slight	Two	c	154
76	4	End Diaphragm @ Pier 3	SER	S	Spall	@ Bay 1	A = 0.05 m2	Slight	One	c	156
77	4	PSC Girder G-1 @ Pier 3	SER	S	Spall	Bottom Flange	A = 0.06 m2	Slight	One	c	157
78	4	Under Side of Sidewalk	CR	S	Transverse Cracks	@ Cabtilever Slab	t = 0.200 mm	Slight	Several	c	158
79	4	Deck Slab	CRPL	H	Patched w/ Asphalt Scaling	Downstream Side	1 m ø	Heavy	Several	a	128
80	5	Rail Post	SER	S	Spall	Inner Face	A = 0.003 m2	Slight	One	c	130
81	5	PSC Girder G-1 @ Pier 5	SER	S	Spall	Bottom Flange	A = 0.10 m2	Slight	One	c	139
82	5	End Diaphragm @ Pier 5	CR	S	Random Cracks	@ Bay 1	t = 0.300 mm	Slight	Several	c	140
83	5	Coping @ Pier 5	HC	S	Honeycomb	End of Coping U.S.	A = 0.07 m2	Slight	One	c	141
84	5	PSC Girder G-1 @ Pier 5	CR	H	Horizontal Crack	End Block	t = 0.800 mm	Heavy	Two	a	142
85	5	PSC Girder G-1 @ Pier 5	SER	S	Spall	Bottom Flange @ Bay 1	A = 0.045 m2	Slight	One	c	143
86	5	End Diaphragm @ Pier 5	CR	M	Random Crack	@ Bay 2	t = 0.600 mm	Moderate	Several	b	144
87	5	PSC Girder G-3 @ Pier 5	CR	S	Horizontal Crack	End Block @ Both Sides	t = 0.200 mm	Slight	One	c	145
88	5	PSC Girder G-4 @ Pier 5	CR	H	Diagonal & Horizontal Cracks	End Block @ Both Sides	t = 0.65 mm	Heavy	Several	a	146
89	5	Coping @ Pier 5	CR	S	Vertical Crack	Coping Face @ Bay 1	t = 0.300 mm	Slight	One	c	147
90	5	Expansion Jt.	F/C	S	Uneven Elev.	Above Pier 5	d = 10 mm	Slight	One	c	129
91	6	PSC Girder G-2 @ Pier 5	CR	H	Horizontal Crack	End Block	t = 0.50 mm	Heavy	One (Each Side)	a	134
92	6	PSC Girder G-3 @ Pier 5	CR	H	Horizontal Crack	End Block	t = 0.450 mm	Heavy	One	a	135
93	6	Coping @ Pier 5	CR	M	Vertical Crack	Coping Face	t = 0.400 mm	Moderate	One	b	136
94	6	PSC Girder G-4 @ Pier 5	CR	M	Crack	End Block	t = 0.300 mm	Moderate	One	b	137

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
95	6	Underside of Sidewalk	CR	S	Transverse Crack	@ Cantilever slab	t = 0.300 mm	Slight	Several	c	138
96	6	PSC Girder G-1 @ Pier 6	CR	M	Horizontal Crack	End Block @ @ Both Sides	t = 0.400 mm	Moderate	Two	b	148
97	6	End Diaphragm @ Pier 6	CR	H	Random Crack	@ Bay 1	t = 0.900 mm	Heavy	Several	a	149
98	6	PSC Girder G-3 @ Pier 6	CR	H	Horizontal Crack	End Block @ Both Sides	t = 0.600 mm	Heavy	One	a	150
99	6	PSC Girder G-2 @ Pier 6	CR	H	Horizontal Crack	End Block @ Both Sides	t = 0.600 mm	Heavy	One	a	151
100	6	Deck Slab	CR	S	Random Cracks	Bottom Face on All Bays	t = 0.300 mm	Slight	Many	c	152
101	7	Expansion Joint @ Pier 7	CRPL	M	Damaged Asphalt Overlay	Above Pier 7	t = 10 mm	Moderate	One	b	104
102	8	Expansion Joint @ Pier 8	SER	M	Spall	End of Slab	A = 0.21 m2	Moderate	One	b	131
103	8	Sidewalk Slab	SER	S	Spall	Top of Curb	A = 0.015 m2	Slight	One	c	132
104	8	Underside at Sidewalk @ P8	SER	S	Exposed Rebar	Bottom	A = 0.08 m2	Slight	One	c	36
105	8	End Diaphragm @ Pier 8	SER	S	Exposed Rebar	@ Bay 1	A = 0.04 m2	Slight	One	c	52
106	8	Coping @ Pier 8	CR	M	Vertical Crack	Under G-1 & G-3	t = 0.40 mm	Moderate	Two	b	
107	8	End Diaphragm @ Pier 8	CR	M	Diagonal Crack	Under G-2	t = 0.40 mm	Moderate	One	b	53
108	8	End Diaphragm @ Pier 8	CR	M	Diagonal Crack	@ Bay 2 under G-2	t = 0.45 mm	Moderate	One	b	54
109	8	Coping @ Pier 8	CR	M	Vertical Crack	@ Coping Face under G-2	t = 0.45 mm	Moderate	One	b	55
110	8	End Diaphragm @ Pier 8	SER	S	Exposed Rebar	Under G-6	A = 0.05 m2	Slight	One	c	56
111	8	Intermediate Diaphragm	CR	S	Vertical and Map Cracks	Under G-7	t = 0.25 mm	Slight	Several	c	57
112	8	End Diaphragm @ Pier 8	CR	H	Vertical Crack	Under G-8	t = 1.60 mm	Heavy	One	a	58
113	8	Coping @ Pier 8	CR	M	Diagonal Crack	@ Coping Face	t = 0.45 mm	Moderate	One	b	59
114	8	Under Side of Sidewalk	SER	S	Exposed Rebar	@ Cantilever D.S.	A = 0.06 m2	Slight	One	c	60
115	8	Coping @ Pier 7	HC	S	Honeycomb	Coping Face @ Bay 4	A = 0.08 m2	Slight	One	c	61
116	8	End Diaphragm @ Pier 7	CR	H	Crack	@ Bay 5	t = 2.00 mm	Heavy	One	a	62
117	8	PSC Girder G-7 @ Pier 7	CR	H	Diagonal Crack	Inner Face of Web	t = 3.00 mm	Heavy	One	a	63
118	8	Pier 7 Coping	CR	H	Diagonal Crack	Coping Face @ Bay 7	t = 0.90 mm	Heavy	One	a	64
119	8	End Diaphragm @ Pier 7	SER	S	Exposed Rebar	@ Bay 7	A = 0.04 m2	Slight	One	c	65
120	8	End Diaphragm @ Pier 7	SER	S	Spall	Bottom @ Bay 8	A = 0.01 m2	Slight	One	c	66
121	8	Coping @ Pier 7	CR	H	Diagonal Crack	Top of Coping @ Bay 8	t = 2.50 mm	Heavy	Several	a	67
122	9	Backwall @ Abut. "B"	FR	H	Fracture	End of Back Wall @ Upstream Side	t = 10.00 mm	Heavy	One	a	68
123	9	End Diaphragm @ Abut. "B"	SER	S	Exposed Rebar	Near G-1	A = 0.03 m2	Slight	One	c	69
124	9	Abutment "B"	CR	M	Horizontal Crack	Abut. Face under G-2	t = 0.500 mm	Moderate	One	b	70
125	9	Abutment "B"	CR	M	Vertical and Horizontal Crack	Abut. Face @ under G-3	t = 0.500 mm	Moderate	Several	b	71
126	9	Abutment "B"	SER	S	Spall	Abut. Face under G-4	A = 0.075 m2	Slight	One	c	72
127	9	Abutment "B"	CR	H	Vertical Crack	Abut. Face under G-5	t = 1.500 mm	Heavy	One	a	73
128	9	Abutment "B"	CR	H	Diagonal Crack	Abut. Face under G-3 to G-7	t = 1.000 mm	Heavy	One	a	74
129	9	Bearing Plates @ Abut. "B"	CO	M	Corrosion	Under G-5 & G-7	Reduction of Cross Section	Moderate	One	b	75
130	9	End Diaphragm @ Abut. "B"	SER	S	Exposed Rebar	Bottom under G-8	A = 0.01 m2	Slight	One	c	76
131	9	Back Wall @ Abut. "B"	FR	H	Fracture	End of Backwall Downstream	t = 12 mm	Heavy	One	a	77
132	9	Deck Slab	SER	S	Spall	Slab	A = 0.01 m2	Slight	One	c	105
133	9	Rail Post	SER	S	Exposed Rebar	Split Post	A = 0.07 m2	Slight	One	c	106
134	9	Deck Slab	CR	S	Random Cracks	Top of Slab	t = 0.300 mm	Slight	Many	c	107
135	9	Expansion Joint @ Abutment B	SER	S	Spall	End of Slab & Approach Slab	A = 0.02 m2	Slight	Several	c	108
136	9	Underside of Sidewalk @ P8	HC	S	Honeycomb	Bottom	A = 0.1 m2	Slight	One	c	37
137	9	End Diaphragm @ Pier 8	CR	M	Random Cracks	Under G-1 (Common Under G-2)	t = 0.50 mm	Moderate	Several	b	38
138	9	End Diaphragm @ Pier 8	CR	M	Random Cracks	@ Bay 2	t = 0.55 mm	Moderate	Several	b	39
139	9	Coping @ Pier 8	CR	S	Vertical Crack	Under G-3	t = 0.30 mm	Slight	One	c	40
140	9	End Diaphragm @ Pier 8	CR	S	Horizontal Crack	Under G-4	t = 0.30 mm	Slight	One	c	41
141	9	PSC Girder G-5 (Channel Beam)	CR	S	Longitudinal Crack	Top Flanges @ Bay 4	t = 0.20 mm	Slight	One	c	42
142	9	1st Interm. Diaph.	CR	H	Vertical Crack	@ Bay 4	t = 1.00 mm	Heavy	One	a	43
143	9	End Diaphragm @ Pier 8	SER	S	Spall	Under G-5	A = 0.005 m2	Slight	One	c	44
144	9	PSC Girder G-6 @ Pier 8	CR	S	Diagonal & Horizontal Crack	Web & Top Flange	t = 0.15 mm	Slight	Two	c	45
145	9	End Diaphragm @ Pier 8	CR	S	Diagonal Crack	Under G-6	t = 0.20 mm	Slight	One	c	45
146	9	End Diaphragm @ Pier 8	SER	S	Exposed Rebar	@ Corner under G-6	A = 0.03 m2	Slight	One	c	46
147	9	PSC Girder G-6 @ Pier 8	CR	S	Horizontal Crack	Web & Top Flange	t = 0.20 mm	Slight	One	c	47
148	9	End Diaphragm @ Pier 8	CR	S	Random Cracks	Under G-7	t = 0.30 mm	Slight	Several	c	48
149	9	1st Interm. Diaph.	CR	H	Horizontal Crack	@ Bay 7	t = 1.00 mm	Heavy	One	a	49
150	9	End Diaphragm @ Pier 8	SER	S	Spall	Under G-8	A = 0.01 m2	Slight	One	c	50
151	9	Coping @ Pier 8	CR	H	Random Cracks	@ Cantilever under End of Shear Blk D.S.	t = 1.00 mm	Heavy	Several	a	51
152		Approach Slab @ Abutment A	CRPL	H	Pothole	Pavement	1.2 m ø	Heavy	Several	a	89 90
153		Approach Slab @ Abutment A	CR	S	Longitudinal Cracks	Pavement	t = 0.300 mm	Slight	Several	c	91
154		Approach Slab @ Abutment A	CR	S	Transverse Cracks	Pavement	t = 0.700 mm	Slight	Two	c	92 93
155		Approach Slab @ Abutment B	CR	S	Random Cracks	Top of Slab	t = 0.300 mm	Slight	Many	c	109
156		Approach Slab	CR	M	Pavement Crack	Top of Slab	t = 7.000 mm	Moderate	Three	b	111 112
157		Approach Slab / App. B	CRPL	S	Excess Asphalt @ Center of			Slight	One	c	110

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
158		Nosing & Asphalt Pvmt. @ Approach B	SER	S	Spall	@ end of Nosing & Damage Aspl. Pav.	A = 0.02 m2	Slight	One	c	113
159		Approach Sidewalk @ Abutment B	CR	S	Random Cracks	Top of Slab	t = 0.300 mm	Slight	Several	c	133
160		Rail Post	SER	S	Exposed Rebar	@ Outer Face 52 m from Abut. "A"	A = 0.05 m2	Slight	One	c	115a
161		Approach Slab / App A	SER	S	Spall	@ Base 60 m from Abut. "A"	A = 0.08 m2	Slight	One	c	117
162		Approach Slab / App A	SER	S	Exposed Rebar	@ Outer Face 60 m from Abut. "A"	A = 0.08 m2	Slight	One	c	118
163		Approach Slab / App A	SER	M	Spall	@ Outer Face 72 m from Abut. "A"	A = 0.175 m2	Moderate	One	b	119
164		Approach Slab / App A	CRPL	H	Pot Hole Patched w/ Asphalt	@ 75 m from Abut. "A" on Whole Span	1.38 m ø	Heavy	One	a	120
165		Approach Slab / App A	CR	M	Random Cracks		t = 6 mm	Moderate	Several	b	121
166		Approach Slab / App A	SER	S	Spall	Near Sidewalk	A = 1.5 m2	Slight	One	c	122
167		Approach Slab / App A	CR	S	Transverse Crack	PCCP from Sidewalk to Sidewalk	t = 1.20 mm	Slight	One	c	123

Date of Inspec: Nov. 26, 2002
Inspector: R. Millo/E. Pagaragan
Checker: J. B. Agnes

Name of Bridge :   Ma1.1 VARGAS BRIDGE "A" (Upstream)

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	Approach Slab	CR	M	Trans., Diag. & Longitudinal Cracks	PCCP @ Top of Approach	t = 8.00 mm	Moderate	Three	b	29
2	1	Approach Slab	CR	M	Trans., Diagonal & Longitudinal Crack	Top of Slab	t = 8.00 mm	Moderate	Three	b	29
3	1	Curb	FR	H	Fracture	Top of Curb near Approach S	t = 0.65 mm	Heavy	One	a	33
4	1	Deck Slab	SER	M	Spall	For Repair Works @ Bay 1, 2 & 3 @ P1	A = 0.30 m²	Moderate	Three	b	18
5	1	Extended Coping	CR	M	Crack	Face of Coping @ P-1 Downstream	t = 0.600 mm	Moderate	One	b	20
6	1	Pavement of Approach Slab	CRPL	M	Tranverse Crack	PCCP Carriageway near Approach Slab	t = 8.00 mm	Moderate	One	b	32
7	1	Pier 2 Column	CR	S	Map Crack	Pier Body @ Upper Part near Coping	t = 0.076 mm	Slight	Many	c	69
8	1	Pier 2 Column	CR	S	Vertical Cracks	Face of Column @ Bare Side	t = 0.102 mm	Slight	Two	c	71
9	1	Pier 2 Footing	SER	S	Exposed Rebar	Top of Footing @ Upstream	A = 0.09 m²	Slight	One	c	70
10	1	Pier Post	CR	H	Vertical Crack	Top Pier Post Downstream @ P1	t = 0.70 mm	Heavy	One	a	21
11	1	Pier Wall	CR	M	Vertical Crack	Near P-1	t = 0.350 mm	Moderate	Two	b	22
12	1	PSC Girder (G-3)	CR	H	Vertical Crack	Top Flange OF Girder @ P-1	t = 1.00 mm	Heavy	One	a	19
13	1	Rail Post	FR	H	Fractured	Top Face of Post @ 10.0 m from End	t = 1.2 mm	Heavy	One	a	72
14	1	Railing Post	SER	S	Spall	Top of Rail Post	A = 0.05 m²	Slight	One	c	34
15	1	Sidewalk	CR	M	Crack	Top of Sidewalk @ 14.0m from End Post	t = 0.500 mm	Moderate	One	b	73
16	1	Sidewalk	SER	S	Exposed Rebar	Top of Sidewalk	A = 0.02 m²	Slight	One	c	74
17	1	Sidewalk	CR	H	Tranverse Crack	Top of Sidewalk	t = 3.00 mm	Heavy	Four	a	38
18	1	Sidewalk	FR	H	Fracture	Top of Sidewalk near end of Approach	d = 150 mm	Heavy	Several	a	28
19	2	Coping / P2	HC	S	Honeycomb	Bottom of Coping @ Pier 2	A = 0.8 m²	Slight	One	c	66
20	2	Pier 2 Column	CR	M	Horizontal Crack	Pier Body @ Downstream	t = 0.400 mm	Moderate	One	b	65
21	2	Pier 2 Column	CR	S	Vertical Cracks	Pier Body @ Front Side	t = 0.173 mm	Slight	Two	c	67
22	2	Pier 2 Column	CR	S	Map Crack	Pier Body @ Downstream	t = 0.076 mm	Slight	Many	c	68
23	3	Girder G-4 / Cantilever Slab	SER	M	Spall	Bottom of Cantilever Slab Flange of Girder	A = 0.15 m²	Moderate	Two	b	53
24	3	Girder 1	CR	M	Vertical Crack	End of Cantilever	t = 0.350 mm	Moderate	Two	b	44
25	3	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Sidewalk Upstream Side @ P2	A = 0.06 m²	Slight	One	c	1
26	3	Cantilever Slab	SER	S	Exposed Rebar	Bottom Face of Sidewalk	A = 0.008 m²	Slight	One	c	9
27	3	Cantilever Slab	CR	H	/Crack	Bottom of Cantilever Slab (Sidewalk)	t = 3.00 mm	Heavy	Two	a	45
28	3	Cantilever Slab	HC	H	Honey Comb	Bottom of Cantilever Slab (Sidewalk)	A = 1.44 m²	Heavy	One	a	46
29	3	Deck Slab	SER	S	Spall	Bottom of Deck Slab @ Bay 1	A = 0.04 m²	Slight	One	c	49
30	3	Deck Slab	SER	S	Spall	Bottom of Deck Slab @ Bay 2	A = 0.03 m²	Slight	One	c	50
31	3	Extended Coping	SER	S	Exposed Rebar	Face of Coping @ P2	A = 0.02 m²	Slight	One	c	10
32	3	Extended Coping	CR	S	Vertical Crack	Face of Coping @ P2	t = 0.300 mm	Slight	Two	c	11
33	3	Extended Coping, Pier 3	CR	M	Vertical Crack	Face of Coping	t = 0.450 mm	Moderate	Random	b	42
34	3	Girder 1	SER	S	Spall	Bottom of Girder 1 mid Span-S3	A = 0.09 m²	Slight	One	c	43
35	3	Girder 1	SER	S	Exposed Rebar	Face of Girder 1	A = 0.015 m²	Slight	Two	c	48
36	3	Girder 4	SER	S	Spall	Face to Bottom of Girder	A = 0.04 m²	Slight	One	c	52
37	3	Girder G-4	CR	M	Diagonal Crack	Face of Girder	t = 0.300 mm	Moderate	Two	b	54
38	3	Intermediate Diaphragm	HC	M	Honeycomb	Bottom of Intermediate Diaphragm @ Bay 1	A = 0.105 m²	Moderate	One	b	3
39	3	Intermediate Diaphragm	HC	H	Honey Comb	Bottom of Diaphragm	A = 1.30 m²	Heavy	One	a	47
40	3	Intermediate Diaphragm	SER	S	Exposed Rebar	Face of Diaphragm @ Bav 3	A = 0.025 m²	Slight	One	c	51
41	3	Pier Post (P3)	CR	M	Vertical Crack	Near Footing of Pier	t = 0.350 mm	Moderate	Random	b	41
42	3	PSC Girder (G-1)	SER	S	Exposed Rebar	Bottom of Girder 1 @ P2	A = 0.02 m²	Slight	One	c	2
43	3	PSC Girder (G-2)	SER	S	Spall	Top Flange of Girder 2 @ P2	A = 0.015 m²	Slight	One	c	5
44	3	PSC Girder (G-3)	SER	S	Exposed Rebar	Bottom of Girder 3 l45@ P2	A = 0.08 m²	Slight	One	c	4
45	3	PSC Girder (G-3)	SER	S	Exposed Rebar	Bottom of Girder 3 @ P2	A = 0.04 m²	Slight	One	c	6
46	3	PSC Girder (G-3)	SER	S	Exposed Rebar	Bottom of Girder 3 @ P2	A = 0.012 m²	Slight	One	c	7
47	3	PSC Girder (G-3)	SER	S	Exposed Rebar	Top Flange of Girder 3 @ P2	A = 0.015 m²	Slight	One	c	8
48	3	PSC Girder (G-4)	CR	H	Vertical Crack	Top Flange of Girder 4 @ P2	t = 0.450 mm	Heavy	One	a	12

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
49	3	Sidewalk	CR	H	Tranverse Crack	Top of Sidewalk near End of Approach Slab	t = 1.500 mm	Heavy	Two	a	75
50	4	Sidewalk	SER	M	Spall	Top of Sidewalk	A = 0.22 m²	Moderate	One	b	31
51	2 & 3	Sidewalk	SER	M	Spall	Top of Sidewalk Between Span 2 & 3	A = 0.02 m²	Moderate	One	b	30

Date of Inspection   Nov. 26, 2002
Inspector   E. Pagaragan/R. Abad
Checker   J. B. Agnes

Name of Bridge :   Ma1.2 VARGAS BRIDGE "B" (Downstream)

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, c, c)	Photo No.
1	1	Sidewalk @ Abut. A"	CR	H	Transverse Crack	Downstream Side	t = 1.50 mm	Heavy	One	a	16
2	1	Approach Slab	CR	M	Transverse Crack	Whole Width of Road	t = 5 mm	Moderate	One	b	17
3	1	Approach Slab	CR	S	Random Cracks	Outer Lane of Road	t = 1 mm	Slight	Many	c	18
4	1	Abut. "A" Curb	SER	S	Spall	Along Expansion Joint @ Sidewalk	A = 0.03 m²	Slight	One	c	19
5	2	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab Around Restraining	A = 0.01 m²	Slight	One	c	-
6	2	Cantilever Slab	CR	S	Crack	Bottom of Slab @ Upstream	t = 0.254 mm	Slight	One	c	11
7	2	Drainage Pipe	CO	H	Corrosion	150 mm Diameter GI Pipe @ End	Remarkable Reduction of Section	Heavy	One	a	14
8	2	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab @ Bay 1	A = 0.09 m²	Slight	One	c	12
9	2	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab @ Bay 1	A = 0.02 m²	Slight	One	c	13
10	2	Railing	SER	S	Exposed Rebar	Bottom of Railing	A = 0.04 m²	Slight	One	c	20
11	3	Cantilever Slab	HC	H	Honeycomb	Bottom Face of Slab @ Upstream	A = 1 m²	Heavy	One	a	1
12	3	Cantilever Slab	CR	M	Cracks	Bottom Face of Slab @ Upstream	t = 0.450 mm	Moderate	Many	b	1
13	3	Cantilever Slab	HC	H	Honeycomb	Bottom Face of Slab @ Pier 2	A = 1 m²	Heavy	One	a	2
14	3	Bearing Plate	CO	M	Corrosion	Below Girder 1 @ Pier 2	Remarkable Reduction of Section	Moderate	One	b	3
15	3	Coping Pier 2	CR	M	Vertical Crack	Face of Coping @ Bay 1 corner G1	t = 0.600 mm	Moderate	One	b	4
16	3	Coping Pier 2	CR	M	Vertical Cracks	Face of Coping @ Bay 1	t = 0.350 mm	Moderate	Two	b	5
17	3	Coping Pier 2	SER	S	Spall	Face of Coping @ Bay 1	A = 0.03 m²	Slight	One	c	5
18	3	Coping Pier 2	CR	S	Vertical Crack	Face of Coping Below Girder 2	t = 0.300 mm	Slight	One	c	-
19	3	Coping Pier 2	CR	S	Vertical Cracks	Face of Coping @ Bay 2	t = 0.300 mm	Slight	Three	c	-
20	3	Coping Pier 2	CR	M	Vertical Crack	Face of Coping Below Girder 3	t = 0.550 mm	Moderate	One	b	6
21	3	Cantilever Slab	CR	S	Map Crack	Bottom of Slab @ Downstream	t = 0.200 mm	Slight	Many	c	7
22	3	Girder 3	CO	S	Corrosion	Bottom Flange of Girder	Surface Rust	Slight	One	c	8
23	3	Deck Slab	SER	M	Exposed Rebar	Bottom Face of Slab @ Bay 1	A = 0.12 m²	Moderate	One	b	9
24	3	Deck Slab	SER	S	Exposed Rebar	Bottom Face of Slab @ Bay 2	A = 0.10 m²	Slight	One	c	10
25	3	Railing	SER	M	Spall	Top of Railing	A = 0.13 m²	Moderate	One	b	21
26	3	Deck Slab	HC	S	Honeycomb	Around Protruding Threaded Bolt @ Bay	A = 0.005 m²	Slight	One	c	28
27	3	Coping @ Pier 3	CR	S	Vertical Crack	Coping Face @ Bay 1	t = 0.250 mm	Slight	One	c	29
28	3	Coping @ Pier 3	CR	S	Diagonal Crack	Coping Face under Girder 2	t = 0.300 mm	Slight	One	c	30
29	3	Coping @ Pier 3	SER	S	Spall	Coping Face under Girder 2	A = 0.06 m²	Slight	One	c	30
30	3	Coping @ Pier 3	CR	M	Random Cracks	Coping Face @ Bay 2	t = 0.550 mm	Moderate	Seven	b	-
31	3	Deck Slab	SER	S	Spall	Bottom of Slab @ Bay 2	A = 0.03 m²	Slight	Four	c	31
32	3	Deck Slab	CR	H	Crack	Bottom of Slab @ Bay 2	t = 1.500 mm	Heavy	One	a	32
33	3	Interior Support @ Pier 3	CO	S	Corrosion	Top of Bracing	Surface Rust	Slight	One	c	33
34	3	Interior Support @ Pier 3	CO	S	Corrosion	Top of Bracing	Surface Rust	Slight	One	c	34
35	3	Deck Slab	CR	M	Crack	Bottom of Slab @ Bay 2	t = 0.400 mm	Moderate	One	b	35
36	3	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab @ Bay 2	A = 0.01 m²	Slight	One	c	35
37	3	Steel Bracing @ Pier 3	CO	H	Corrosion	Expansion Joint	Remarkable Reduction of Section	Heavy	One	a	36
38	3	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab	A = 0.02 m²	Slight	One	c	37
39	3	Deck Slab	CR	S	Crack	Bottom of Slab	t = 0.102 mm	Slight	One	c	37
40	4	Sidewalk	CR	S	Transverse Crack	Upstream near Abutment B	t = 0.173 mm	Slight	One	c	15
41	4	Curb	SER	S	Spall	Top of Curb	A = 0.03 m²	Slight	One	c	22
42	4	Sidewalk	CR	H	Transverse Crack	Near Abutment	t = 1 mm	Heavy	One	b	23
43	4	Sidewalk	CR	M	Longitudinal Crack	Top of Sidewalk	t = 0.361 mm	Moderate	One	b	23A
44	4	Sidewalk	SER	S	Spall	Top of Sidewalk	A = 0.02 m²	Slight	One	c	23A
45	4	Railing	CR	H	Crack	Face of Railing	t = 3.00 mm	Heavy	One	a	24
46	4	Sidewalk	CR	H	Crack	Top of Sidewalk	t = 1.00 mm	Heavy	One	a	25
47	4	Railing	CR	M	Crack	Top of Railing	t = 0.550 mm	Moderate	One	b	26
48	4	Curb	SER	S	Spall	Top of Curb 3. 0 m from Approach	A = 0.08 m²	Slight	One	c	27

Date of Inspection   'December 12,13 &16 2002
Inspector   N.M.Castro/ R.A. Abad
Checker   J.B. Agnes

Name of Bridge :   Ma2 ROSARIO BRIDGE

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	Pier 1 Coping	CR	S	Transverse Crack	End of Coping Downstream	t = 0.129 mm	Slight	Two	c	1
2	1	Cantilever Slab	SER	S	Exposed Rebar	Bottom Face Downstream	A = 0.05 m²	Slight	One	c	2
3	1	Cantilever Slab	CR	H	Transverse Crack	Bottom Face Downstream	t = 0.61 mm	Heavy	One	a	3
4	1	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab & Haunch	A = 0.02 m²	Slight	One	c	4
5	1	PSC Girder G-1	CR	S	Vertical Crack	Top pf Diaphgram @ Bay 1	t - 0.102 mm	Slight	One	c	5
6	1	Cantilever Slab	SER	S	Exposed Rebar	Pipe Sleeve	A = 0.046 m²	Slight	One	c	6
7	1	PSC Girder G-1	CR	S	Random Cracks	Construction Joint @ Top	t = 0.076 mm	Slight	Several	c	7
8	1	End Diaphgram @ Pier 1	SER	S	Spall	Front Face @ Downstream	A = 0.01 m²	Slight	One	c	8
9	1	Cantilever Slab U/S	CR	M	Transverse Crack	Bottom @ 0.5 m from Abut A	t = 0.35 mm	Moderate	One	b	170
10	1	Cantilever Slab U/S	SER	S	Spall	Bottom @ Mid-Span	A = 0.05 m²	Slight	One	c	171
11	1	PSC Girder G-1	SER	S	Spall	Bottom Flange @ Mid-Span	A = 0.06 m²	Slight	One	c	172

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
12	1	PSC Girder G-2 & G-3	SER	S	Exposed Rebar	Top Flange @ Bay 2	A = 0.005 m²	Slight	Several	c	173
13	1	Deck Slab @ Bay 2	CR	S	Transverse Crack	Bottom @ 2.5 m from Abut A	t = 0.25 mm	Slight	One	c	174
14	1	Interm. Diaph. @ Bay 3	SER	S	Spall	Bottom	A = 0.06 m²	Slight	One	c	175
15	1	Deck Slab @ Bay 3	CR	H	Random Cracks	Bottom	t = 2.15 mm	Heavy	Several	a	176
16	1	PSC Girders @ Bay 4	SER	S	Exposed Rebar	Top Flange	A = 0.005 m²	Slight	Several	c	177
17	1	Interm. Diaph. @ Bay 4	SER	S	Spall	Bottom	A = 0.06 m²	Slight	One	c	178
18	1	PSC Girder G-6	SER	S	Exposed Rebar	Top Flange @ Bay 6	A = 0.04 m²	Slight	One	c	179
19	1	Interm. Diaph. @ Bay 7	HC	S	Honeycomb	Top	A = 0.009 m²	Slight	One	c	180
20	1	PSC Girder G-6	SER	S	Spall	Bottom Flange	A = 0.03 m²	Slight	One	c	181 /182
21	1	Deck Slab	CRPL	H	Random Cracks	Above Abut. "A"	t = 1.5 mm	Heavy	Several	a	193
22	1	Sidewalk	CR	H	Random Cracks	2 m. from Abut. "A"	t = 1.0 mm	Heavy	Many	a	194
23	1	Sidewalk	CR	H	Random Cracks	Typical @ all Spans	t = 0.921 mm	Heavy	Many	a	206
24	1	Asphalt Pavement	F/C	M	Corrugation	Near P1	d = 25 mm	Moderate	One	b	207
25	1	Railing	DEF	M	Deformed	1 m. from P1	Remarkable Deflection	Moderate	One	b	208
26	1	Approach Slab	CRPL	S	Cracks	Asphalt Pavement	t = 2.00 mm	Slight	One	c	191
27	1	Approach Slab	CRPL	M	Crocodile Cracks	Asphalt Pavement	t = 10.00 mm	Moderate	One	b	192
28	1	Sidewalk	SER	S	Spall	Edge	A = 0.315 m²	Slight	One	c	200
29	1	Approach Slab	CRPL	S	Cracks	Asphalt Pavement	t = 3.00 mm	Slight	Several	c	201
30	1	Railing	DEF	M	Deformed	Start of Approach	Remarkable Deflection	Moderate	Two	b	202
31	1	Railing	D/M	M	Deformed/Top Missing	23 m from Approach	Remarkable Deflection	Moderate	One	b	203
32	1	Railing	D/M	M	Missing	0.5 m from Abut. "A"	Remarkable Missing	Moderate	One	b	204
33	2	PSC Girder G-1	CR	S	Vertical Crack	Front Face Below Girder G-1	t = 0.102 mm	Slight	Several	c	8
34	2	Cantilever Slab	CR	S	Random Cracks	Pipe Sleeve	t = 0.129 mm	Slight	Several	c	9
35	2	PSC Girder G-1	SER	S	Spall	Construction Joint @ Top	A = 0.01 m²	Slight	One	c	10
36	2	Steel Bearing @ Pier 1	CO	M	Corrosion	G-1 to G-10	Reduction of Cross Section	Moderate	All	b	11
37	2	Pier 1 Coping	SER	S	Exposed Rebar	Bottom of Slab	A = 0.06 m²	Slight	One	c	12
38	2	Deck Slab	CR	S	Random Cracks	Front Face @ Bay 9	t = 0.254 mm	Slight	Several	c	13
39	2	Pier 1 Coping	SER	S	Exposed Rebar	Face of Coping	A = 0.04 m²	Slight	One	c	14
40	2	Deck Slab	SER	M	Spall	Bottom of Slab	A = 0.255 m²	Moderate	One	b	15
41	2	Deck Slab	SER	M	Spall	Hunch/Fillet	A = 0.174 m²	Moderate	One	b	16
42	2	Deck Slab	SER	S	Exposed Rebar	End	A = 0.10 m²	Slight	One	c	17
43	2	PSC Girder G-4	SER	S	Exposed Rebar	End Block	A = 0.10 m²	Slight	One	c	17
44	2	PSC Girder G-4 & G-5	SER	S	Exposed Rebar	Bottom of Slab	A = 0.02 m²	Slight	One	c	18
45	2	PSC Girder G-5	SER	S	Exposed Rebar	Front Face @ Bay 7	A = 0.02 m²	Slight	One	c	19
46	2	PSC Girder G-6	SER	S	Exposed Rebar	Top Flange @ Bay 5	A = 0.015 m²	Slight	One	c	20
47	2	PSC Girder G-6	SER	S	Exposed Rebar	Top Flange @ Bay 6	A = 0.03 m²	Slight	One	c	21
48	2	Deck Slab @ Bay 6	CR	H	Random Cracks	Bottom of Slab	t = 0.61 mm	Heavy	Several	a	22
49	2	Deck Slab @ Bay 7	CR	H	Random Cracks	Bottom of Slab	t = 0.61 mm	Heavy	Several	a	23
50	2	Deck Slab @ Bay 7	SER	M	Exposed Rebar	Construction Joint	A = 0.174 m²	Moderate	One	b	24
51	2	Pier 1 Coping	CR	S	Random Cracks	Front Face Below G-7	t = 0.127 mm	Slight	Several	c	25
52	2	Deck Slab @ Bay 8	CR	S	Random Cracks	Bottom of Slab	t = 0.127 mm	Slight	Several	c	26
53	2	Deck Slab @ Bay 8	SER	M	Exposed Rebar	Const. Joint	A = 0.170 m²	Moderate	One	b	27
54	2	Deck Slab @ Bay 9	CR	S	Random Cracks	Bottom of Slab	t = 0.127 mm	Slight	Several	c	28
55	2	Deck Slab @ Bay 9	SER	M	Exposed Rebar	Const. Joint	A = 0.174 m²	Moderate	One	b	29
56	2	Pier 1 Coping	CR	H	Horizontal Crack	End of Coping	t = 2 mm	Heavy	One	a	30
57	2	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab	A = 0.10 m²	Slight	One	c	31
58	2	Cantilever Slab	HC	S	Honeycomb	Bottom	A = 0.06 m²	Slight	One	c	32
59	2	Pier 1 Body	SER	S	Spall	End Upstream Side	A = 0.006 m²	Slight	One	c	33
60	2	Pier 1 Body	CR	S	Vertical Crack	Front Face	t = 0.229 mm	Slight	One	c	34
61	2	Pier 1 Column	SER	S	Spall	Center Column	A = 0.09 m²	Slight	One	c	35
62	2	Cantilever Slab	CR	H	Transverse Crack	Bottom above P2, Upstream	t = 0.869 mm	Heavy	Three	a	36
63	2	Cantilever Slab	SER	S	Spall	Bottom Edge	A = 0.06 m²	Slight	One	c	37
64	2	Steel Bearing @ Pier 2	CO	M	Corrosion	G-1 to G-10	Reduction of Cross Section	Moderate	All	b	38
65	2	PSC Girder G-1	SER	S	Spall	End of Girder @ P2	A = 0.075 m²	Slight	One	c	39
66	2	PSC Girder G-1	CR	S	Random Cracks	Ext. Face of End Block	t = 0.167 mm	Slight	Several	c	40
67	2	Pier 2	SER	S	Exposed Rebar	Back Face	A = 0.03 m²	Slight	One	c	45
68	2	Deck Slab @ Bay 1	HC	M	Honeycomb	Bottom near End Diaphragm	A = 0.12 m²	Moderate	One	b	46
69	2	Deck Slab/Diaphragm @ Bay 2	SER	H	Spall	Bottom of Slab Top of Diaph.	A = 0.45 m²	Heavy	One	a	48
70	2	Pier 2 Coping	SER	S	Exposed Rebar	Back Face under G-3	A = 0.04 m²	Slight	One	c	49
71	2	Deck Slab/Diaphragm @ Bay 3	SER	H	Exposed Rebar	Bottom of Slab	A = 0.39 m²	Heavy	One	a	50
72	2	PSC Girder	SER	S	Spall	Above Pier 2	A = 0.06 m²	Slight	one	c	53
73	2	PSC Girder G-5 & G-6	SER	S	Spall	Top Flange	A = 0.08 m²	Slight	Several	c	54
74	2	End Diaphragm @ Bay 7	CR	H	Crack	Top	t = 0.61 mm	Heavy	One	a	55

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
75	2	Deck Slab @ Bay 7	CR	M	Random Cracks	Bottom	t = 0.50 mm	Moderate	Several	b	56
76	2	Deck Slab @ Bay 8	SER	M	Spall	Bottom	A = 0.30 m²	Moderate	Several	b	57
77	2	Deck Slab @ Bay 9	CR	H	Random Cracks	Bottom	t = 1.753 mm	Heavy	Several	a	58
78	2	End Diaphragm @ Bay 9	SER	M	Spall	Top @ Joint	A = 0.12 m²	Moderate	One	b	59
79	2	Cantilever Slab near G-10	SER	H	Spall	Bottom	A = 0.36 m²	Heavy	One	a	60
80	2	Pier 3 Coping	CR	H	Diagonal Crack	Bottom Face	t = 0.61 mm	Heavy	One	a	61
81	2	Cantilever Slab U/S	SER	S	Exposed Rebar	Bottom	A = 0.023 m²	Slight	One	c	183
82	2	Deck Slab @ Bay 2	CR	S	Random Cracks	Bottom near Mid-Span	t = 0.15 mm	Slight	Several	c	184
83	2	PSC Girder G-5	SER	S	Exposed Rebar	Top Flange @ Bay 4	A = 0.10 m²	Slight	Several	c	185
84	2	PSC Girder G-4	SER	S	Exposed Rebar	Top Flange @ Bay 4	A = 0.06 m²	Slight	One	c	186
85	2	PSC Girder G-6	SER	S	Exposed Rebar	Top Flange L/4 near P1	A = 0.03 m²	Slight	Several	c	187
86	2	PSC Girder G-6	SER	S	Exposed Rebar	Top Flange L/4 near P2	A = 0.03 m²	Slight	Several	c	188
87	2	Deck Slab @ Bay 6	HC	S	Honeycomb	Bottom near Mid-Span	A = 0.08 m²	Slight	One	c	189
88	2	2nd Interm. Diaph. @ Bay 7	SER	S	Spall	Bottom	A = 0.075 m²	Slight	One	c	190
89	2	Asphalt Pavement	CRPL	S	Longitudinal Crack	Near P2	t = 1.5 mm	Slight	One	c	209
90	3	Cantilever Slab	SER	S	Exposed Rebar	Bottom near Girder G-1	A = 0.10 m²	Slight	One	c	41
91	3	Cantilever Slab	CR	M	Transverse Crack	Bottom	t = 0.458 mm	Moderate	Four	b	42
92	3	Cantilever Slab	SER	S	Exposed Rebar	Bottom Edge	A = 0.06 m²	Slight	One	c	43
93	3	Steel Bearing @ Pier 2	CO	M	Corrosion	G-1 to G-10	Reduction of Cross Section	Moderate	All	b	44
94	3	End Diagphram @ Bay 5	SER	S	Exposed Rebar	Bottom	A = 0.025 m²	Slight	Five	c	51
95	3	Deck Slab @ Bay 5	CR	S	Random Cracks	Bottom	t = 0.15 mm	Slight	Several	c	52
96	3	End Diaph. G-1	CR	M	Random Cracks	End of Diaph. U/S	t = 0.35 mm	Moderate	Several	b	137
97	3	PSC Girder G-1	CR	H	Vertical Crack	End Block	t = 0.50 mm	Heavy	One	a	138
98	3	Cantilever Slab U/S	SER	S	Spall	Near Support @ Exp. Joint	A = 0.045 m²	Slight	One	c	139
99	3	Cantilever Slab U/S	CR	M	Random Cracks	Bottom	t = 0.35 mm	Moderate	Several	b	140
100	3	Cantilever Slab U/S	SER	S	Exposed Rebar	Bottom	A = 0.10 m²	Slight	Several	c	141
101	3	Steel Bearing @ Pier 3	CO	M	Corrosion	G-1 to G-10	Reduction of Cross Section	Moderate	All	b	142
102	3	PSC Girder G-1	CR	M	Random Cracks	End Block	t = 0.30 mm	Moderate	Several	b	143
103	3	Deck Slab @ Bay 1	SER	M	Exposed Rebar	Bottom	A = 0.17 m²	Moderate	One	b	144
104	3	Deck Slab @ Bay 2	SER	M	Exposed Rebar	Bottom	A = 0.16 m²	Moderate	Two	b	147
105	3	Deck Slab @ Bay 3	SER	M	Exposed Rebar	Bottom	A = 0.17 m²	Moderate	One	b	148
106	3	End Diaph. @ Bay 3	SER	M	Exposed Rebar	Diaph. Haunch	A = 0.17 m²	Moderate	One	b	149
107	3	PSC Girder G-5	SER	S	Spall	Top Flange @ Bay 4	A = 0.06 m²	Slight	One	c	150
108	3	PSC Girder G-5	SER	S	Spall	Bottom Flange @ Bay 5	A = 0.03 m²	Slight	One	c	151
109	3	Deck Slab @ Bay 5	CR	M	Transverse Crack	Bottom	t = 0.40 mm	Moderate	Two	b	152
110	3	Deck Slab @ Bay 7	SER	M	Exposed Rebar	Bottom	A = 0.261 m²	Moderate	Two	b	155
111	3	Pier 3 Coping	SER	S	Spall	Back Face @ Bay 7	A = 0.03 m²	Slight	One	c	157
112	3	Deck Slab @ Bay 8	CR	S	Random Cracks	Bottom	t = 0.15 mm	Slight	Several	c	159
113	3	Deck Slab @ Bay 8	SER	M	Exposed Rebar	Bottom	A = 0.261 m²	Moderate	One	b	160
114	3	Deck Slab @ Bay 9	SER	M	Exposed Rebar	Bottom	A = 0.261 m²	Moderate	One	b	162
115	3	Deck Slab @ Bay 9	CR	M	Transverse Crack	Bottom	t = 0.40 mm	Moderate	One	b	163
116	3	End Diaph. @ Pier 3	CR	H	Random Cracks	Bottom @ Bay 3	t = 1.38 mm	Heavy	Several	a	164
117	3	End Diaph. @ Pier 3	SER	S	Exposed Rebar	At end D/S	A = 0.05 m²	Slight	One	c	165
118	3	Cantilever Slab	SER	S	Exposed Rebar	Bottom D/S	A = 0.02 m²	Slight	Several	c	166
119	3	Steel Bearing @ Pier 3	CO	M	Corrosion	G1 to G10	Reduction of Cross Section	Moderate	All	b	167
120	3	Pier 3 Copping	SER	S	Exposed Rebar	Back Face near end D/S	A = 0.02 m²	Slight	Several	c	168
121	3	Pier 3 Coping	CR	M	Vertical Crack	Back Face	t = 0.35 mm	Moderate	One	b	169
122	3	Railing	DEF	S	Deflected Outwards	14 m. from P2	Deflection of Raling	Slight	One	c	195
123	3	Railing	DEF	S	Deformed	8 m from P2	Deflection of Raling	Slight	One	c	210
124	3	Asphalt Pavement	CRPL	S	Intermetent Crack	Typical @ all Spans	t = 2 mm	Slight	Several	c	211
125	3	Railing	B/R	M	Top Rail Broken	12 m from P3	Damage	Moderate	One	b	212
126	4	Cantilever Slab	CR	H	Transverse Crack	Bottom D/S	t = 0.61 mm	Heavy	One	a	103
127	4	Cantilever Slab	SER	S	Spall	Bottom	A = 0.05 m²	Slight	One	c	104
128	4	Pier 4 Coping	CR	S	Vertical Crack	Back Face	t = 0.30 mm	Slight	One	c	105
129	4	Cantilever Slab U/S	HC	S	Honeycomb	Bottom	A = 0.09 m²	Slight	One	c	112
130	4	Deck Slab @ Bay 1	CR	M	Transverse Crack	Bottom	t = 0.60 mm	Moderate	One	b	113
131	4	Deck Slab @ Bay 1	SER	M	Exposed Rebar	Bottom	A = 0.15 m²	Moderate	One	b	114
132	4	Deck Slab @ Bay 2	SER	M	Exposed Rebar	Bottom	A = 0.15 m²	Moderate	One	b	115
133	4	End Diaph. @ Bay 3	CR	M	Crack	Back Face	t = 0.60 mm	Moderate	One	b	116
134	4	PSC Girder G-5	SER	S	Spall	Top Flange @ Bay 4	A = 0.08 m²	Slight	One	c	118
135	4	Steel Bearing @ Pier 4	CO	M	Corrosion	G-1 to G-10	Reduction of Cross Section	Moderate	All	b	119
136	4	PSC Girder G-5	SER	S	Spall	Top Flange @ Bay 5	A = 0.075 m²	Slight	One	c	120
137	4	Deck Slab @ Bay 5	SER	S	Spall	Bottom	A = 0.08 m²	Slight	One	c	121

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
138	4	End Diaph. @ Bay 5	SER	S	Spall	Bottom	A = 0.04 m²	Slight	One	c	122
139	4	PSC Girder G-6 & G-7	SER	S	Exposed Rebar	Top Flange @ Bay 6	A = 0.045 m²	Slight	One	c	124
140	4	PSC Girder G-7	SER	S	Spall	Top Flange @ Bay 7	A = 0.03 m²	Slight	One	c	125
141	4	Deck Slab @ Bay 7	SER	M	Exposed Rebar	Bottom	A = 0.261 m²	Moderate	One	b	126
142	4	Deck Slab @ Bay 7	CR	S	Transverse Crack	Bottom	t = 0.25 mm	Slight	Two	c	127
143	4	Deck Slab @ Bay 6	SER	S	Exposed Rebar	Bottom	A = 0.10 m²	Slight	One	c	128
144	4	End Diaph. @ Bay 9	SER	S	Spall	Top	A = 0.06 m²	Slight	One	c	129
145	4	Cantilever Slab D/S	SER	H	Exposed Rebar	Expansion Joint @ P4	A = 0.70 m²	Heavy	One	a	130
146	4	Steel Railing	B/R	H	Broken	Top Rail	Remarkable Damage	Heavy	One	a	131/ 132
147	4	Cantilever Slab D/S	CR	S	Transverse Crack	Bottom	t = 0.25 mm	Slight	One	c	133
148	4	Cantilever Slab D/S	SER	S	Spall	Bottom	A = 0.025 m²	Slight	One	c	134
149	4	End Diaph.	CR	M	Horizontal Crack	at End D/S	t = 0.45 mm	Moderate	Two	b	135
150	4	PSC Girder G-1	CR	S	Vertical Crack	End Block	t = 0.20 mm	Slight	One	c	136
151	4	Deck Slab @ Bay 1	HC	H	Honeycomb	Bottom near P3	A = 16.01 m²	Heavy	One	a	145
152	4	End Diaph. @ Pier 3	HC	M	Honeycomb	Top	A = 0.12 m²	Moderate	One	b	146
153	4	Deck Slab @ Bay 6	D/D	M	Deterioration	Bottom	A = 1.05 m²	Moderate	One	b	154
154	4	PSC Girder G-7	SER	S	Spall	Top Flange @ Bay 7	A = 0.005 m²	Slight	One	c	158
155	4	End Diaph. @ Pier 3	CR	S	Cracks	Bottom	t = 0.2 mm	Moderate	Several	c	158
156	4	End Diaph. @ Pier 3	SER	S	Exposed Rebar	Bottom @ Bay 8	A = 0.013 m²	Slight	Several	c	161
157	4	Sidewalk	SER	S	Spall	Above P3	A = 0.09 m²	Slight	One	c	196
158	4	Expansion Joint	D/M	S	Missing Plate Section	Above P3	A = 0.04 m²	Slight	One	c	213
159	3/4	Deck Slab @ Bay 5	SER	M	Exposed Rebar	Bottom	A = 0.174 m²	Moderate	One	b	153
160	4	Sidewalk	SER	S	Spall	Typical @ all Spans	A = 0.02 m²	Slight	Many	c	197
161	5	PSC Girder G-1	CR	M	Random Cracks	Face of End Block	t = 0.229 mm	Moderate	Several	b	67
162	5	Cantilever Slab	SER	S	Spall	Bottom	A = 0.08 m²	Slight	One	c	68
163	5	Cantilever Slab	CR	M	Random Cracks	Bottom	t = 0.35 mm	Moderate	Several	b	69
164	5	Pier 5 Coping	CR	M	Random Cracks	Back Face Pear G-1	t = 0.381 mm	Moderate	Several	b	71
165	5	Deck Slab @ Bay 2	CR	M	Long. Crack	Bottom	t = 0.356 mm	Moderate	One	b	72
166	5	Deck Slab @ Bay 3	SER	S	Exposed Rebar	Bottom	A = 0.08 m²	Slight	One	c	73
167	5	End Diaph. @ Bay 4	SER	S	Spall	Top	A = 0.10 m²	Slight	One	c	75
168	5	PSC Girder G-4	SER	S	Exposed Rebar	Top Frange @ Bay 4	A = 0.06 m²	Slight	One	c	76
169	5	PSC Girder G-7	SER	S	Exposed Rebar	Top Flange @ Bay 6	A = 0.075 m²	Slight	One	c	79
170	5	Shear Block @ Bay 6	HC	S	Honeycomb	End	A = 0.09 m²	Slight	One	c	80
171	5	Shear Block @ Bay 7	SER	S	Spall	End	A = 0.09 m²	Slight	One	c	81
172	5	Deck Slab @ Bay 9	SER	M	Exposed Rebar	Bottom	A = 0.15 m²	Moderate	One	b	82
173	5	Pier 5 Coping	CR	H	Vertical Crack	Back Face @ end D/S	t = 0.783 mm	Heavy	One	a	83
174	5	Pier 5 Coping	CR	S	Horizontal Crack	Back Face D/S	t = 0.152 mm	Slight	One	c	85
175	5	Cantilever Slab	SER	S	Exposed Rebar	Bottom D/S	A = 0.06 m²	Slight	One	c	86
176	5	End. Diaph.	CR	H	Random Cracks	End of Diaph. D/S	t = 1.00 mm	Heavy	Several	a	106
177	5	PSC Girder G-1	CR	H	Random Cracks	Bottom	t = 0.50 mm	Heavy	Several	a	107
178	5	PSC Girder G-1	CR	S	Vertical Crack	Bottom	t = 0.20 mm	Slight	One	c	108
179	5	Cantilever Slab	SER	M	Exposed Rebar	Bottom	A = 0.15 m²	Moderate	One	b	109
180	5	Cantilever Slab U/S	CR	M	Transverse Crack	Bottom	t = 0.40 mm	Moderate	Several	b	110
181	5	Cantilever Slab U/S	SER	S	Exposed Rebar	Bottom	A = 0.06 m²	Slight	One	c	111
182	5	PSC Girder G-4	SER	S	Spall	Top Flange @ Bay 3	A = 0.06 m²	Slight	One	c	117
183	5	PSC Girder G-5 & G-6	SER	S	Spall	Top Flange @ Bay 5	A = 0.10 m²	Slight	Cne	c	123
184	5	Sidewalk	SER	S	Spall	Above P4	A = 0.04 m²	Slight	One	c	214
185	5	Railing	B/R	H	Top Rail Broken	6 m. from P4	Remarable Damage	Heavy	One	a	215
186	6	PSC Girder G-2	CR	H	Random Cracks	End Block	t = 0.813 mm	Heavy	Several	a	62
187	6	Cantilever Slab	CR	H	Random Cracks	Bottom Upstream	t = 0.766 mm	Heavy	Several	a	63
188	6	Cantilever Slab	SER	M	Exposed Rebar	Bottom	A = 0.12 m²	Moderate	One	b	64
189	6	Steal Bearing @ Pier 5	CO	M	Corrosion	G-1 to G-10	Reduction of Cross Section	Moderate	All	b	65
190	6	Pier 5 Coping	CR	S	Horizontal Crack	Back Face	t = 0.102 mm	Slight	One	c	66
191	6	End Diaph. @ Bay 4	SER	S	Exposed Rebar	Face Near Support	A = 0.08 m²	Slight	One	c	74
192	6	PSC Girder G-5	SER	S	Exposed Rebar	Top Flange @ Bay 5	A = 0.038 m²	Slight	One	c	77
193	6	Cantilever Slab	SER	S	Exposed Rebar	Bottom D/S	A = 0.06 m²	Slight	One	c	87
194	6	Cantilever Slab	SER	S	Exposed Rebar	Bottom	A = 0.01 m²	Slight	One	c	88
195	6	Deck Slab @ Bay 3	SER	M	Exposed Rebar	Bottom near Mid-Span	A = 0.24 m²	Moderate	One	b	89
196	6	Deck Slab @ Bay 3	SER	M	Exposed Rebar	Bottom near P5	A = 0.24 m²	Moderate	One	b	90
197	6	Interm Diaph. @ Bay 3	SER	M	Spall	Bottom	A = 0.25 m²	Moderate	One	b	91
198	6	Deck Slab @ Bay 3	SER	M	Spall	Bottom near Abut. B	A = 0.16 m²	Moderate	One	b	92
199	6	PSC Girder G-4	SER	S	Exposed Rebar	Top Flange @ Bay 4	A = 0.05 m²	Slight	One	c	93
200	6	PSC Girder G-4	CR	H	Long. Crack	Top Flange @ Bay 4	t = 1.50 mm	Heavy	One	a	93

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
201	6	PSC Girder G-6	SER	S	Exposed Rebar	Top Flange @ Bay 5	A = 0.08 m²	Slight	One	c	94
202	6	Interm Diaph. Near P5	HC	S	Honey Comb.	Diaph. Haunch	A = 0.09 m²	Slight	One	c	95
203	6	PSC Girder G-5	SER	S	Exposed Rebar	Top Flange @ Bay 5	A = 0.08 m²	Slight	One	c	96
204	6	PSC Girder G-5	CR	H	Long. Crack	Top Flange @ Bay 5	t = 1.50 mm	Heavy	One	a	96
205	6	PSC Girder G-5	SER	S	Spall	Top Flange @ Bay 5	A = 0.06 m²	Slight	One	c	97
206	6	PSC Girder C-6	SER	S	Exposed Rebar	Top Flange @ Bay 6	A = 0.10 m²	Slight	One	c	98
207	6	Interm. Diaph. @ Bay 6	HC	S	Honey Comb.	Diaph. Haunch	A = 0.02 m²	Slight	One	c	99
208	6	Interm. Diaph. @ Bay 7	SER	S	Exposed Rebar	Bottom near P5	A = 0.01 m²	Slight	One	c	100
209	6	Deck Slab @ Bay 7	SER	S	Exposed Rebar	Bottom	A = 0.03 m²	Slight	One	c	101
210	6	Interm. Diaph. @ Bay 7	SER	S	Exposed Rebar	Bottom near G-8	A = 0.04 m²	Slight	One	c	102
211	6	Railing	SER	S	Spall	Above Abut. "B"	A = 0.045 m²	Slight	One	c	216
212	6	Approach Slab	CRPL	S	Random Cracks	Asphalt Pavement	t = 3 mm	Slight	Several	c	217
213	6	Approach Slab	CRPL	M	Potholes	4 m. from Abut. "B"	a = 30 mm	Moderate	One	b	218
214	6	Sidewalk	MISD	M	Settlement	Near Abut. "B"	d = 100 mm	Moderate	One	b	219

Date of Inspection December 14-20, 2002
Inspector R.Millo / R. Buencamino
Checker J.B. Agnes

Name of Bridge : Ma3 MARCOS BRIDGE

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
1	1	Coping	CR	H	Random Cracks	Pier 1 Coping @ Upstream	t = 1.500 mm	Heavy	Many	a	195
2	1	Coping	CR	M	Horizontal Cracks and Map Cracks	Pier 1 End of Coping @ Upstream	t = 0.500 mm	Moderate	Many	b	196
3	1	Coping	CR	H	Vertical and Horizontal Cracks	Pier 1 Face of Coping @ Bay 1	t = 0.610 mm	Heavy	Many	a	197
4	1	Coping	CR	S	Vertical and Horizontal Cracks	Pier 1 Face of Coping @ Bay 2	t = 3.000 mm	Slight	Many	c	198
5	1	Pier 1, Girder 3	SER	S	Spall	Top Flange of Girder @ Bay 2	A = 0.030 m²	Slight	One	c	199
6	1	Coping	CR	S	Vertical Cracks	Pier 1 Face of Coping @ Bay 3	t = 0.200 mm	Slight	Two	c	200
7	1	Coping	CR	M	Random Cracks	Pier 1 Face of Coping @ Bay 4	t = 0.550 mm	Moderate	Many	b	201
8	1	Pier 1, Girder 5	SER	S	Spall	Top Flange of Girder @ Bay 5	A = 0.020 m²	Slight	One	c	202
9	1	Coping	CR	M	Random Cracks	Pier 1 Face of Coping @ Bay 6	t = 0.356 mm	Moderate	Many	b	203
10	1	End Diaphragm	HC	S	Honeycomb	Diaphragm Haunch @ Bay 6	A = 0.035 m²	Slight	One	c	204
11	1	Coping	CR	M	Random Cracks	Pier 1 Face of Coping @ Bay 7	t = 0.350 mm	Moderate	Three	b	205
12	1	Pier 1, Girder 8	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 7	A = 0.150 m²	Moderate	One	b	206
13	1	Coping	CR	S	Vertical Crack	Pier 1 Face of Coping @ Bay 8	t = 0.300 mm	Slight	Three	c	207
14	1	Coping	CR	M	Vertical Crack	Pier 1 Face of Coping @ Bay 9	t = 0.400 mm	Moderate	One	b	208
15	1	Coping	CR	M	Vertical Crack	Pier 1 Face of Coping @ Bay 10	t = 0.400 mm	Moderate	Two	b	209
16	1	Deck Slab	HC	M	Honeycomb	Bottom Face of Slab @ Bay 10	A = 0.210 m²	Moderate	One	b	210
17	1	Coping	CR	M	Random Cracks	Pier 1 @ Bay 11	t = 0.400 mm	Moderate	Many	b	211
18	1	Deck Slab	HC	S	Honeycomb	Bottom Face of Slab @ Bay 11	A = 0.010 m²	Slight	One	c	212
19	1	Coping	CR	H	Cracks	Near end Coping Downstream	t = 10.000 mm	Heavy	Three	a	213
20	1	Railing Post	SER	S	Exposed Rebar	Face of Rail Post	A = 0.015 m²	Slight	One	c	335
21	1	Asphalt Pavement	CRPL	M	Crack	Deck Slab Wearing Course Inner Lane	t = 7.000 mm	Moderate	One	b	336
22	1	Side Walk	CR	S	Random Cracks	Top of Side Walk	t = 0.254 mm	Slight	One	c	361
23	1	Asphalt Pavement	CRPL	S	Random Cracks	Deck Slab Wearing Course	t = 4.000 mm	Slight	One	c	362
24	1	Railing Post	SER	S	Exposed Rebar	10.0 m. from Abutment "B"	A = 0.030 m²	Slight	One	c	363
25	2	Coping	CR	H	Horizontal Cracks and Map Cracks	Pier 2 Coping @ Upstream	t = 2.500 mm	Heavy	Many	a	151
26	2	Coping	CR	H	Random Cracks	Pier 2 Coping @ Upstream	t = 3.000 mm	Heavy	Many	a	152
27	2	Pier 2, Girder 2	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 1	A = 0.120 m²	Moderate	One	b	153
28	2	Coping	CR	M	Horizontal Cracks	Pier 2 Coping Under Girder 2	t = 0.381 mm	Moderate	Many	b	154
29	2	Pier 2, Girder 2	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 2	A = 0.130 m²	Moderate	One	b	155
30	2	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 3	t = 0.102 mm	Slight	Many	c	156
31	2	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 4	t = 0.102 mm	Slight	Many	c	157
32	2	Pier 2, Girder 5	SER	S	Spall	Top Flange of Girder @ Bay 4	A = 0.035 m²	Slight	One	c	158
33	2	Deck Slab	HC	M	Honeycomb	Pier 2 Bottom of Slab @ Bay 5	A = 0.200 m²	Moderate	One	b	159
34	2	End Diaphragm	SER	S	Spall	Pier 2 Diaphragm Haunch @ Bay 5	A = 0.020 m²	Slight	One	c	160
35	2	Pier 2, Girder 7	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 6	A = 0.120 m²	Moderate	One	b	161
36	2	Pier 2, Girder 7	SER	M	Exposed Rebar	Top Flange of Girder @ Bay 7	A = 0.150 m²	Moderate	One	b	162
37	2	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 7	t = 0.076 mm	Slight	Many	c	163
38	2	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 8	t = 0.102 mm	Slight	Many	c	164
39	2	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 9	t = 0.102 mm	Slight	Many	c	165
40	2	Pier 2, Girder 11	HC	M	Honeycomb	Bottom of Flange of Girder @ Bay 10	A = 0.130 m²	Moderate	One	b	166
41	2	End Diaphragm	HC	S	Honeycomb	Pier 2 Face of Diaphragm @ Bay 10	A = 0.020 m²	Slight	One	c	167
42	2	Coping	CR	H	Random Cracks	Pier 2 End of Coping @ Downstream	t = 5.000 mm	Heavy	Many	a	168
43	2	Coping	CR	H	Random Cracks	Pier 1 End of Coping @ Upstream	t = 3.000 mm	Heavy	Many	a	169
44	2	Pier 1, Girder 1	SER	S	Spall	Bottom of Girder	A = 0.020 m²	Slight	One	c	170

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
45	2	Deck Slab	CR	S	Random Cracks	Pier 1 Bottom of Slab @ Bay 1	t = 0.076 mm	Slight	Many	c	171
46	2	Coping	CR	H	Horizontal Cracks	Pier 1 Coping @ Bay 1	t = 1.000 mm	Heavy	One	a	172
47	2	Coping	CR	M	Random Cracks	Pier 1 Coping @ Bay 2	t = 0.500 mm	Moderate	Many	b	173
48	2	Coping	CR	H	Random Cracks	Pier 1 Coping @ Bay 3	t = 1.000 mm	Heavy	Many	a	174
49	2	Deck Slab	CR	S	Random Map Cracks	Bottom of Slab @ Bay 3	t = 0.076 mm	Slight	Many	c	175
50	2	Pier 1 , Girder 3	HC	S	Honeycomb	Bottom Face of Girder @ Bay 3	A = 0.070 m²	Slight	One	c	176
51	2	Coping	CR	H	Random Cracks	Pier 1 Coping @ Bay 4	t = 0.610 mm	Heavy	Many	a	177
52	2	Coping	CR	H	Random Cracks	Pier 1 Coping @ Bay 5	t = 1.000 mm	Heavy	Many	a	178
53	2	Deck Slab	CR	S	Random Cracks	Pier 1 Bottom of Slab @ Bay 5	t = 0.173 mm	Slight	Many	c	179
54	2	Pier 1, Girder 5	HC	S	Honeycomb	Face of Girder @ Bay 5	A = 0.010 m²	Slight	One	c	180
55	2	Coping	CR	H	Random Cracks	Pier 1 Face of Coping @ Bay 6	t = 0.610 mm	Heavy	Many	a	181
56	2	Coping	CR	M	Random Cracks	Pier 1 Face of Coping @ Bay 7	t = 0.500 mm	Moderate	Many	b	182
57	2	Pier 1, Girder 8	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 7	A = 0.160 m²	Moderate	One	b	183
58	2	Coping	CR	H	Vertical Cracks	Pier 1 Face of Coping @ Bay 8	t = 0.610 mm	Heavy	Three	a	184
59	2	Pier 1, Girder 8	HC	M	Honeycomb	Face of Girder @ Bay 8	A = 0.160 m²	Moderate	One	b	185
60	2	Coping	CR	M	Vertical and Horizontal Cracks	Pier 1 Face of Coping @ Bay 9	t = 0.500 mm	Moderate	Three	b	186
61	2	Deck Slab	SER	S	Exposed Rebar	Pier 1 Bottom of Slab @ Bay 9	A = 0.02 m²	Slight	One	c	187
62	2	Coping	CR	S	Random Cracks	Pier 1 Face of Coping @ Bay 10	t = 0.229 mm	Slight	Many	c	188
63	2	Pier 1, Girder 10	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 10	A = 0.12 m²	Moderate	One	b	189
64	2	Coping	CR	S	Horizontal Cracks	Pier 1 Face of Coping @ Bay 11	t = 0.254 mm	Slight	One	c	190
65	2	Deck Slab	HC	S	Honeycomb	Pier 1 Bottom of Slab @ Bay 11	A = 0.06 m²	Slight	One	c	191
66	2	Coping	CR	H	Random Cracks	Pier 1 End of Coping @ Downstream	t = 7.000 mm	Heavy	Many	a	192
67	2	Cantilever Slab	SER	S	Exposed Rebar	Pier 1 Bottom of Slab @ Downstream	A = 0.06 m²	Slight	One	c	193
68	2	Coping	CR	H	Random Cracks	Pier 1 Near End of Coping @ DS	t = 6.500 mm	Heavy	Many	a	194
69	2	Asphalt Pavement	CR	S	Crack	Deck Slab Wearing Course Inner Lane	t = 4.00 mm	Slight	One	c	334
70	2	Asphalt Pavement	CRPL	S	Crack	Deck Slab Wearing Course Inner Lane	t = 3.00 mm	Slight	One	c	346
71	2	Asphalt Pavement	CRPL	S	Corrugation	Deck Slab Wearing Course	t = 8.000 mm	Slight	One	c	347
72	2	Curb	SER	S	Spall	Top of Curb	A = 0.020 m²	Slight	One	c	358
73	2	Side Walk	CR	S	Crack	Top of Side Walk	t = 0.254 mm	Slight	One	c	359
74	2	Railing	CR	M	Crack	Face of Railing	t = 0.500 mm	Moderate	One	b	360
75	3	Coping	CR	H	Horizontal Cracks	Pier 3 End of Coping @ Upstream	t = 3.500 mm	Heavy	Two	a	124
76	3	Coping	CR	H	Random Cracks	Pier 3 Coping Face Upstream	t = 4.000 mm	Heavy	Many	a	125
77	3	Cantilever Slab	SER	S	Exposed Rebar	Pier 3 Bottom of Slab @ Upstream	A = 0.060 m²	Slight	One	c	126
78	3	Coping	CR	H	Horizontal & Vertical Cracks	Pier 3 Under Girder 1	t = 0.864 mm	Heavy	Two	a	
79	3	Coping	CR	M	Horizontal Cracks	Pier 3 Coping Face Bay 1 to Bay 3	t = 0.584 mm	Moderate	Two	b	127
80	3	Pier 3 Girder 2	SER	S	Exposed Rebar	Pier 3 Top Flange of Girder @ Bay 1	A = 0.050 m²	Slight	One	c	128
81	3	Deck Slab	SER	M	Spall	Pier 3 Bottom of Slab @ Bay 3	A = 0.180 m²	Moderate	One	b	129
82	3	Deck Slab and Girder 5	SER	M	Spall	Pier 3 Bottom of Slab @ Bay 4	A = 0.120 m²	Moderate	One	b	130
83	3	Deck Slab	SER	S	Spall	Pier 3 Bottom of Slab @ Bay 8	A = 0.060 m²	Slight	One	c	131
84	3	Coping	CR	M	Random Cracks	Pier 3 Coping Face Bay 9 to Bay 11	t = 0.305 mm	Moderate	Many	b	132
85	3	Deck Slab	SER	M	Spall	Pier 3 Bottom of Slab @ Bay 11	A = 0.300 m²	Moderate	One	b	133
86	3	Coping	CR	H	Random Cracks	Pier 3 Coping Face Downstream	t = 5.000 mm	Heavy	Many	a	134
87	3	Cantilever Slab	SER	S	Exposed Rebar	Pier 3 Bottom of Slab @ Downstream	A = 0.020 m²	Slight	Two	c	135
88	3	Coping	CR	H	Random Cracks	Pier 2 End Coping @ Upstream	t = 0.700 mm	Heavy	Many	a	136
89	3	Coping	CR	S	Random Cracks	Pier 2 Coping Face @ Bay 2	t = 0.300 mm	Slight	Many	c	137
90	3	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 3	t = 0.173 mm	Slight	Many	c	138
91	3	Pier 2, Girder 4	SER	S	Spall	Top Flange of Girder @ Bay 4	A = 0.025 m²	Slight	One	c	139
92	3	Pier 2, Girder 5	SER	S	Spall	Top Flange of Girder @ Bay 4	A = 0.025 m²	Slight	One	c	139
93	3	Pier 2, Girder 5	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 5	A = 0.100 m²	Slight	One	c	140
94	3	Pier 2, Girder 6	SER	M	Spall	Top Flange of Girder @ Bay 5	A = 0.300 m²	Moderate	One	b	141
95	3	Pier 2, Girder 7	SER	M	Spall	Top Flange of Girder @ Bay 7	A = 0.240 m²	Moderate	One	b	142
96	3	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 8	t = 0.102 mm	Slight	Many	c	144
97	3	Deck Slab	CR	S	Random Cracks	Pier 2 Bottom of Slab @ Bay 9	t = 0.102 mm	Slight	Many	c	145
98	3	Coping	CR	H	Horizontal Cracks and Map Cracks	Pier 2 Coping Under Girder 11 @ Bay 11	t = 1.011 mm	Heavy	Many	a	146
99	3	Pier 2, Girder 11	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 11	A = 0.120 m²	Moderate	One	b	147
100	3	Coping	CR	H	Horizontal Cracks and Map Cracks	Pier 2 Coping @ Downstream	t = 3.000 mm	Heavy	Many	a	148
101	3	Cantilever Slab	SER	S	Exposed Rebar	Pier 2 Bottom of Slab @ Downstream	A = 0.040 m²	Slight	One	c	149
102	3	Coping	CR	H	Horizontal Cracks and Map Cracks	Pier 2 Coping @ Downstream	t = 3.500 mm	Heavy	Many	a	150
103	3	Asphalt Pavement	CRPL	S	Corrugation	Deck Slab Wearing Course Inner Lane	t = 8.000 mm	Slight	One	c	332
104	3	Asphalt Pavement	CRPL	M	Crack	Deck Slab Wearing Course Outer Lane	t = 10.000 mm	Moderate	One	b	333
105	3	Asphalt Pavement	CRPL	M	Crack	Deck Slab Wearing Course Outer Lane	t = 10.000 mm	Moderate	One	b	348
106	3	Railing	SER	S	Exposed Rebar	Bottom of Railing	A = 0.050 m²	Slight	One	c	349
107	3	Railing	SER	M	Exposed Rebar	Bottom of Railing	A = 0.180 m²	Moderate	One	b	356

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
108	3	Railing	SER	S	Exposed Rebar	Bottom of Railing	A = 0.040 m²	Slight	One	c	357
109	4	Coping	CR	H	Horizontal Crack	Pier 4 Coping @ Upstream	t = 9.000 mm	Heavy	One	a	96
110	4	Coping	CR	H	Horizontal Crack	Pier 4 Coping @ Upstream	t = 7.000 mm	Heavy	One	a	97
111	4	Pier 4 Girder 1	SER	S	Spall	Bottom of Girder @ Upstream	A = 0.100 m²	Slight	One	c	98
112	4	Coping	CR	H	Horizontal Crack	Pier 4 Coping @ Bay 2 & under	t = 1.169 mm	Heavy	One	a	99
113	4	Coping	CR	M	Horizontal Crack	Pier 4 Coping @ Bay 3 under Bay 3	t = 0.559 mm	Moderate	One	b	99
114	4	Coping	CR	M	Vertical Crack	Pier 4 Under Girder 4	t = 0.305 mm	Moderate	One	b	99
115	4	Coping	CR	M	Horizontal Crack	Pier 4 Coping @ Bay 4	t = 0.432 mm	Moderate	One	b	99
116	4	Pier 4 Girder 3	SER	M	Spall	Bottom of Girder @ Bay 3	A = 0.300 m²	Moderate	One	b	100
117	4	Pier 4 Girder 4	SER	M	Spall	Bottom of Girder @ Bay 4	A = 0.420 m²	Moderate	One	b	101
118	4	Pier 4 Girder 9	SER	M	Spall	Bottom of Girder @ Bay 9	A = 0.250 m²	Moderate	One	b	102
119	4	Pier 4 Girder 9	SER	S	Exposed Rebar	Face of Girder @ Bay 9	A = 0.020 m²	Slight	One	c	103
120	4	Deck Slab	SER	H	Thin Concrete Cover	Pier 4 Bottom of Slab @ All Bays	Whole Span	Heavy	Several	a	104
121	4	End Diaphgram	CR	S	Vertical Crack	Pier 4 Face of Diaph. @ Bay 10	t = 0.173 mm	Slight	One	c	105
122	4	Coping	CR	H	Random Cracks	Pier 4 Coping Bay 10 to Bay 11	t = 0.610 mm	Heavy	Many	a	106
123	4	Pier 4 Girder 11	SER	S	Spall	Bottom of Girder @ Bay 11	A = 0.030 m²	Slight	One	c	107
124	4	Pier 4 Coping	CR	H	Horizontal Crack w/ Random Crack	Face of Coping @ Downstream	t = 6.000 mm	Heavy	Many	a	108
125	4	Pier 3 Coping	CR	H	Random Cracks	Face of Coping @ Upstream	t = 3.000 mm	Heavy	Many	a	109
126	4	Pier 3 Girder 2	HC	S	Honeycomb	Bottom Flange of Girder 2 Bay 1	A = 0.010 m²	Slight	One	c	110
127	4	Coping	CR	H	Random Cracks	Pier 3 Coping @ Bay 3	t = 1.143 mm	Heavy	Many	a	111
128	4	Diaphgram Haunch	HC	S	Honeycomb	Pier 3 Diaph. Haunch @ Bay 6	A = 0.040 m²	Slight	One	c	112
129	4	Deck Slab and End Diaphgram	SER	M	Spall	Pier 3 at Bay 7	A = 0.300 m²	Moderate	One	b	113
130	4	Coping	CR	M	Horizontal and Vertical Cracks	Pier 3 Coping @ Bay 8	t = 0.559 mm	Moderate	Two	b	114
131	4	Coping	CR	M	Vertical Cracks w/ Free Lime	Pier 3 Under Girder 10	t = 0.559 mm	Moderate	Many	b	115
132	4	Deck Slab	SER	S	Exposed Rebar	Pier 3 Bottom of Slab @ Bay 10	A = 0.020 m²	Slight	Two	c	116
133	4	Pier 3 Girder 11	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 10	A = 0.010 m²	Slight	One	c	117
134	4	Deck Slab	SER	S	Exposed Rebar	Pier 3 Bottom of Slab @ Bay 11	A = 0.008 m²	Slight	One	c	118
135	4	Deck Slab	SER	M	Spall	Pier 3 Bottom of Slab @ Bay 11	A = 0.400 m²	Moderate	One	b	119
136	4	Coping	CR	M	Map Cracks	Pier 3 Coping @ Downstream	t = 0.457 mm	Moderate	Many	b	120
137	4	Coping	CR	H	Horizontal Cracks	Pier 3 Coping @ Downstream	t = 3.000 mm	Heavy	Many	a	121
138	4	Cantilever Slab	SER	S	Exposed Rebar	Pier 3 Bottom of Slab @ Downstream	A = 0.030 m²	Slight	One	c	122
139	4	Coping	CR	M	Random Cracks	Bot. Pier 3 Coping @ Downstream	t = 0.457 mm	Moderate	Three	b	123
140	4	Railing Post	SER	S	Exposed Rebar	Face of Rail Post	A = 0.008 m²	Slight	One	c	331
141	4	Railing Post	SER	S	Exposed Rebar	Face of Post	A = 0.030 m²	Slight	One	c	355
142	5	Coping	CR	H	Vertical and Horizontal Cracks	Pier 5 Coping @ Upstream	t = 0.750 mm	Heavy	Many	a	71
143	5	Coping	CR	H	Random Cracks	Pier 5 Coping @ Upstream	t = 0.750 mm	Heavy	Many	a	72
144	5	Cantilever Slab	CR	M	Crack	Pier 5 Bottom of Slab @ Upstream	t = 0.400 mm	Moderate	One	b	73
145	5	Coping	CR	M	Horizontal Cracks	Pier 5 Coping @ Bay 2	t = 0.508 mm	Moderate	Two	b	74
146	5	Pier 5 Girder 2	SER	S	Spall	Top Flange of Girder @ Bay 2	A = 0.010 m²	Slight	One	c	75
147	5	Deck Slab	SER	M	Spall	Pier 5 Bottom of Slab @ Bay 2	A = 0.300 m²	Moderate	One	b	76
148	5	Pier 5 Girder 3	SER	M	Exposed Rebar	Top Flange of Girder @ Bay 2	A = 0.120 m²	Moderate	One	b	77
149	5	Deck Slab	CR	M	Random Cracks	Pier 5 Bottom of Slab @ Bay 3	t = 0.381 mm	Moderate	Three	b	78
150	5	Deck Slab	CR	S	Crack	Pier 5 Bottom of Slab @ Bay 4	t = 0.229 mm	Slight	Three	c	79
151	5	Pier 5 Girder 5	SER	S	Spall	Top Flange of Girder @ Bay 5	A = 0.020 m²	Slight	One	c	80
152	5	Deck Slab	SER	S	Exposed Rebar	Pier 5 Bottom of Slab @ Bay 7	A = 0.015 m²	Slight	One	c	81
153	5	Pier 5 Girder 11	SER	S	Spall	Top Flange of Girder @ Bay 11	A = 0.040 m²	Slight	One	c	82
154	5	Coping	CR	H	Horizontal Cracks w/ Map Crack	Pier 5 Coping End Downstream	t = 10.000 mm	Heavy	Many	a	82A
155	5	Pier 5 Girder 12	SER	S	Exposed Rebar	Face of Girder @ Upsteam	A = 0.010 m²	Slight	Two	c	83
156	5	Pier 4 Coping	CR	S	Random Cracks	Pier 4 Coping End Upstream	t = 0.173 mm	Slight	Three	c	84
157	5	Pier 4 girder 1	HC	H	Honeycomb	Face of Girder @ Upstream	A = 0.480 m²	Heavy	One	a	85
158	5	Cantilever Slab	SER	S	Spall	Pier 4 Bottom of Slab @ Upstream	A = 0.020 m²	Slight	One	c	86
159	5	Coping	CR	H	Vertical Cracks	Pier 4 Coping @ Bay 2	t = 1.199 mm	Heavy	Two	a	87
160	5	Coping	CR	H	Vertical Cracks	Pier 4 Coping @ Bay 3	t = 0.783 mm	Heavy	Two	a	88
161	5	Pier 4 Girder 9	SER	M	Spall	Bottom Flange of Girder 9 @ Bay 10	A = 0.150 m²	Moderate	One	b	89
162	5	Coping	CR	S	Vertical Cracks and Horizontal Crack	Pier 4 Coping @ Bay 10 & Bay 11	t = 0.254 mm	Slight	Three	c	90
163	5	Pier 4 Girder 11	SER	S	Spall	Bottom of Girder @ Bay 11	A = 0.025 m²	Slight	One	c	91
164	5	Coping	CR	H	Horizontal Crack @ Map Cracks	Pier 4 Coping @ Downstream	t = 4.000 mm	Heavy	Many	a	92
165	5	Coping	CR	H	Horizontal Crack w/ Map Cracks	Pier 4 Coping @ Downstream	t = 2.500 mm	Heavy	Many	a	93
166	5	Cantilever Slab	SER	S	Exposed Rebar	Pier 4 Bottom of Slab @ Downstream	A = 0.020 m²	Slight	One	c	94
167	5	Cantilever Slab	SER	S	Exposed Rebar	Pier 4 Bottom of Slab @ Downstream	A = 0.010 m²	Slight	One	c	95
168	5	Asphalt Pavement	CRPL	S	Corrugation	Deck Slab Wearing Course	t = 5.000 mm	Slight	Two	c	330
169	5	Railing Post	SER	S	Exposed Rebar	Face of Post	A = 0.030 m²	Slight	One	c	352
170	5	Railing	HC	S	Honeycomb	Bottom of Railing	A = 0.020 m²	Slight	One	c	353

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
171	5	Railing Post	SER	S	Exposed Rebar	Face of Post	A = 0.010 m²	Slight	One	c	354
172	6	End Diaphragm	SER	S	Exposed Rebar	Pier 6 @ Upstream Side	A = 0.020 m²	Slight	One	c	25
173	6	End Diaphragm	HC	S	Honeycomb	Pier 6 @ Upstream Side	A = 0.030 m²	Slight	One	c	25
174	6	Coping	CR	H	Horizontal Crack	Pier 6 Span 6	t = 5.000 mm	Heavy	One	a	26
175	6	Cantilever Slab	SER	S	Exposed Rebar	Pier 6 Bottom of Slab @ Upstream Side	A = 0.012 m²	Slight	One	c	27
176	6	Coping	CR	S	Vertical Crack	Pier 6 @ Bay 5	t = 0.229 mm	Slight	One	c	28
177	6	Pier 6 Girder 7	SER	S	Exposed Rebar	Top Flange @ Bay 6	A = 0.060 m²	Slight	One	c	29
178	6	Pier 6 Girder 8	SER	M	Spall	Bottom @ Bay 7	A = 0.120 m²	Moderate	One	b	30
179	6	Coping	CR	S	Vertical Crack	Pier 6 Under Girder 8	t = 0.173 mm	Slight	One	c	31
180	6	Pier 6 Girder 8	SER	S	Spall	Bottom @ Bay 3	A = 0.025 m²	Slight	One	c	32
181	6	Pier 6 Girder 9	SER	S	Spall	Face @ Bay 8	A = 0.060 m²	Slight	One	c	33
182	6	Pier 6 Girder 10	SER	S	Exposed Rebar	Top Flange @ Bay 9	A = 0.050 m²	Slight	One	c	34
183	6	Deck Slab	FL	H	Free Lime	Pier 6 Bottom @ Bay 8	A = 5.500 m²	Heavy	One	a	35
184	6	Coping	CR	S	Vertical Crack w/ Free Lime	Pier 6 Under Girder 10	t = 0.254 mm	Slight	One	c	36
185	6	Coping	CR	H	Vertical Crack/Free Lime	Pier 6 @ Bay 10	t = 1.200 mm	Heavy	One	a	37
186	6	Deck Slab	SER	S	Exposed Rebar	Pier 6 Bottom @ Bay 11	A = 0.045 m²	Slight	One	c	38
187	6	Deck Slab	SER	H	Exposed Rebar	Pier 6 Bottom @ Bay 11	A = 1.320 m²	Heavy	One	a	39
188	6	Coping	CR	H	Horizontal Crack	Pier 6 @ Downstream	t = 1.500 mm	Heavy	One	a	40
189	6	Cantilever Slab	SER	S	Exposed Rebar	Pier 6 Bottom of Slab @ Downstream	A = 0.025 m²	Slight	Two	c	41
190	6	Pier 5 Girder 1	SER	S	Exposed Rebar	Face of Girder @ Upstream	A = 0.090 m²	Slight	One	c	42
191	6	Pier 5 Girder 1	SER	M	Spall	Top Flange of Girder @ Upstream	A = 0.140 m²	Moderate	One	b	43
192	6	Cantilever Slab	CR	S	Crack	Pier 5 Bottrom of Cantilver Slab @ U/S	t = 0.173 mm	Slight	One	c	44
193	6	Coping	CR	H	Random Cracks	Pier 5 @ Upstream	t = 6.00 mm	Heavy	Many	a	45
194	6	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab @ Bay 1	A = 0.06 m²	Slight	One	c	46
195	6	Pier 5 Girder 2	SER	S	Exposed Rebar	Face of Girder @ Bay 10	A = 0.015 m²	Slight	One	c	47
196	6	Pier 5 Girder 2	SER	M	Spall	Bottom of Girder @ Bay 1	A = 0.18 m²	Moderate	One	b	48
197	6	Coping	CR	M	Random Cracks	Pier 5 @ Bay 1 to Bay 2	t = 0.381 mm	Moderate	Many	b	49
198	6	Pier 5 Girder 3	HC	S	Honeycomb	Top Flange of Girder @ Bay 1	A = 0.03 m²	Slight	One	c	50
199	6	Coping	CR	M	Random Cracks	Pier 5 Coping @ Bay 3	t = 0.356 mm	Moderate	Many	b	51
200	6	Coping	CR	M	Random Cracks	Pier 5 Coping @ Bay 4	t = 0.381 mm	Moderate	Many	b	52
201	6	Pier 5 Girder 4	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 4	A = 0.01 m²	Slight	One	c	53
202	6	Pier 5 Girder 4	SER	S	Spall	Bottom Flange of Girder @ Bay 4	A = 0.04 m²	Slight	One	c	53A
203	6	Pier 5 Girder 5	SER	S	Spall	Top Flange of Girder @ Bay 4	A = 0.02 m²	Slight	One	c	54
204	6	Coping	CR	M	Vertical Cracks	Pier 5 Coping @ Bay 5	t = 0.406 mm	Moderate	Two	b	55
205	6	Coping	CR	M	Vertical Cracks	Pier 5 Coping @ Bay 6	t = 0.381 mm	Moderate	Two	b	56
206	6	Pier 5 Girder 7	SER	S	Spall	Top Flange of Girder @ Bay 6	A = 0.01 m²	Slight	One	c	57
207	6	Coping	CR	M	Random Cracks	Pier 5 Coping @ Bay 7	t = 0.483 mm	Moderate	Many	b	58
208	6	Coping	CR	H	Vertical Crack	Pier 5Under Girder 8	t = 0.510 mm	Heavy	One	a	59
209	6	Pier 5 Girder 7	SER	S	Spall	Top Flange of Girder @ Bay 7	A = 0.015 m²	Slight	One	c	60
210	6	Coping	CR	M	Vertical Crack	Pier 5 Under Girder 9 @ Bay 9	t = 0.306 mm	Moderate	One	b	61
211	6	Pier 5 Girder 9	SER	S	Spall	Top Flange of Girder @ Bay 8	A = 0.03 m²	Slight	One	c	62
212	6	Coping	CR	M	Vertical Crack	Pier 5 Coping @ Bay 9	t = 0.381 mm	Moderate	One	b	63
213	6	End Diaphragm	HC	S	Honeycomb	Pier 5 Diaphragm @ Bay 10	A = 0.015 m²	Slight	One	c	64
214	6	Deck Slab	HC	S	Honeycomb	Pier 5 Bottom of Slab @ Bay 10	A = 0.02 m²	Slight	Two	c	65
215	6	Coping	CR	H	Random Cracks	Pier 5 Under Girder 11 and Bay 11	t = 0.813 mm	Heavy	Many	a	66
216	6	Pier 5 Girder 11	SER	S	Spall	Top Flange of Girder @ Bay 11	A = 0.06 m²	Slight	One	c	67
217	6	Pier 5 Girder 12	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 11	A = 0.01 m²	Slight	One	c	68
218	6	Coping	CR	H	Vertical and Horizontal Cracks	Pier 5 Coping @ Downstream	t = 0.80 mm	Heavy	Many	a	69
219	6	Cantilever Slab	SER	S	Spall	Pier 5 Bottom of Slab @ Downstream	A = 0.03 m²	Slight	One	c	70
220	6	Railing	SER	M	Exposed Rebar	Bottom of Railing	A = 0.126 m²	Moderate	One	b	327
221	6	Asphalt Pavement	CRPL	H	Pot Hole	Deck Slab Wearing Course	DIAM. = 0.05 m	Heavy	One	a	328
222	6	Asphalt Pavement	CRPL	S	Corrugation	Deck Slab Wearing Course	t = 5.00 mm	Slight	One	C	329
223	7	Coping	CR	H	Fractured /Random Cracks	Pier 6 Coping @ Upstream Site	t = 9.00 mm	Heavy	Many	a	1
224	7	Coping	CR	H	Fractured /Random Cracks	Pier 6 Coping @ Front Side	t = 8.00 mm	Heavy	Many	a	2
225	7	Pier 6 Girder 1	CR	S	Map Cracks	End Block @ Upstream Face	t = 0.076 mm	Slight	Many	c	3
226	7	Deck Slab	CR	S	Random Cracks	Pier 6 Bottom of Slab @ Bay 1	t = 0.229 mm	Slight	Three	c	4
227	7	Coping	CR	H	Horizontal Cracks	Pier 6 Coping @ Bay 1	t = 2.00 mm	Heavy	Two	a	5
228	7	Pier 6 Girder 2	SER	S	Spall	Top Flange of Girder @ Bay 1	A = 0.015 m²	Slight	One	c	6
229	7	End Diaphragm	CR	S	Vertical Crack	Diaphgram @ Bay 2	t = 0.173 mm	Slight	One	c	7
230	7	Coping	CR	S	Random Cracks	Pier 6 Coping @ Bay 2	t = 0.127 mm	Slight	Many	c	8
231	7	Coping	CR	S	Random Cracks	Pier 6 Under Girder 3	t = 0.102 mm	Slight	Many	c	9
232	7	Pier 6 Girder 4	SER	M	Spall	Bot. Edge Girder @ Bay 3	A = 0.16 m²	Moderate	One	b	10
233	7	End Diaphragm	CR	S	Vertical Crack	Pier 6 Diaphragm @ Bay 3	t = 0.127 mm	Slight	One	c	11

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
234	7	Pier 6 Girder 4	SER	S	Exposed Rebar	Face of Girder @ Bay 3	A = 0.004 m²	Slight	One	c	12
235	7	End Diaphragm	CR	S	Vertical Crack	Pier 6 Diaphragm @ Bay 4	l = 0.254 mm	Slight	One	c	13
236	7	Pier 6 Girder 5	SER	S	Spall	Bottom of Girder @ Bay 5	A = 0.03 m²	Slight	One	c	14
237	7	Diaphragm Haunch	CR	S	Vertical Crack	Pier 6 Near Girder 6 @ Bay 6	l = 0.127 mm	Slight	One	c	15
238	7	End Diaphragm	CR	S	Vertical Crack	Pier 6 Diaphragm @ Bay 7	t = 0.173 mm	Slight	One	c	16
239	7	End Diaphragm	HC	S	Honeycomb	Pier 6 Diaphragm @ Bay 7	A = 0.02 m²	Slight	One	c	16
240	7	End Diaphgram	CR	H	Vertical Crack	Pier 6 Diaphragm @ Bay 8	l = 0.610 mm	Heavy	One	a	17
241	7	Pier 6 Girder 9	SER	S	Spall	Top Flange of Girder @ Bay 8	A = 0.03 m²	Slight	One	c	18
242	7	Pier 6 Girder 10	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 9	A = 0.01 m²	Slight	One	c	19
243	7	Pier 6 Girder 10	SER	S	Exposed Rebar	Face of Girder @ Bay 10	A = 0.03 m²	Slight	One	c	20
244	7	End Diaphragm	CR	H	Crack	Pier 6 Diaphragm @ Bay 10	l = 0.610 mm	Heavy	One	a	21
245	7	Pier 6 Girder 11	SER	M	Spall	Bottom Flange of Girder @ Bay 10	A = 0.15 m²	Moderate	One	b	22
246	7	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab @ Downstream	A = 0.03 m²	Slight	One	c	23
247	7	Coping	CR	H	Random Cracks	Pier 6 Coping @ Downstream	l = 2.00 mm	Heavy	Many	a	24
248	7	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab Upstream	A = 0.02 m²	Slight	One	c	213 A
249	7	Pier 7, Girder 1	SER	S	Exposed Rebar	Outer Face of Girder @ Upstream	A = 0.05 m²	Slight	One	c	214
250	7	Pier 7, Girder 1	SER	S	Exposed Rebar	Outer Face of Girder @ Upstream	A = 0.05 m²	Slight	One	c	215
251	7	Pier 7, Girder 1	SER	S	Exposed Rebar	Bottom Flange of Girder @ Bay 1	A = 0.01 m²	Slight	One	c	216
252	7	Pier 7, Girder 2	SER	S	Spall	Top Flange of Girder @ Bay 2	A = 0.04 m²	Slight	One	c	217
253	7	Coping	CR	M	Vertical Cracks	Pier 7 Coping @ Bay 2	l = 0.350 mm	Moderate	Three	b	218
254	7	Deck Slab	CR	S	Random Cracks	Bottom Face of Slab @ Bay 3	t = 0.173 mm	Slight	Many	c	219
255	7	Pier 7, Girder 4	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 4	A = 0.12 m²	Moderate	One	b	220
256	7	Coping	CR	M	Vertical Cracks	Pier 7 Coping @ Bay 3	l = 0.350 mm	Moderate	Three	b	221
257	7	Pier 7, Girder 6	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 5	A = 0.12 m²	Moderate	One	b	222
258	7	Pier 7, Girder 7	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 6	A = 0.24 m²	Moderate	One	b	223
259	7	Pier 7 , Girder 8	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 7	A = 0.03 m²	Slight	One	c	224
260	7	Pier 7, Girder 10	HC	S	Honeycomb	Top Flange of Girder @ Bay 9	A = 0.03 m²	Slight	One	c	225
261	7	End Diaphragm	HC	S	Honeycomb	Middle Face of Diaphragm @ Bay 10	A = 0.01 m²	Slight	One	c	226
262	7	End Diaphragm	HC	S	Honeycomb	Bottom Face of Diaphragm @ Bay 11	A = 0.008 m²	Slight	One	c	227
263	7	Coping	CR	S	Random Cracks	Coping Face near End Downstream	l = 0.300 mm	Slight	Two	c	228
264	7	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab @ Downstream	A = 0.04 m²	Slight	Two	c	229
265	7	Pier 7, Girder 12	SER	S	Exposed Rebar	Outer Face of Girder @ Downstream	A = 0.015 m²	Slight	One	c	230
266	7	Railing	SER	S	Exposed Rebar	Bottom of Railing	A = 0.02 m²	Slight	One	c	324
267	7	Railing	SER	M	Spall	Bottom of Railing	A = 0.26 m²	Moderate	One	b	325
268	7	Railing	SER	S	Spall	Bottom of Railing	A = 0.04 m²	Slight	Two	c	326
269	7	Railing	SER	S	Exposed Rebar	Bottom of Railing	A = 0.08 m²	Slight	One	c	350
270	7	Railing Post	SER	S	Exposed Rebar	Face of Post	A = 0.02 m²	Slight	One	c	351
271	8	Pier 7, Girder 1	HC	H	Honeycomb	Outer Face of Girder @ Upstream	A = 0.49 m²	Heavy	One	a	243
272	8	End Diaphragm	CR	S	Map Cracks	Face of Diaphragm @ Bay 1	t = 0.076 mm	Slight	One	c	244
273	8	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab @ Bay 1	A = 0.01 m²	Slight	One	c	245
274	8	Coping	CR	S	Vertical Cracks	Pier 7 Coping Under Girder 2	l = 0.229 mm	Slight	One	c	246
275	8	Pier 7, Girder 2	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 2	A = 0.11 m²	Moderate	One	b	247
276	8	End Diaphragm	CR	M	Vertical Cracks	Face of Diaphragm @ Bay 3	t = 0.350 mm	Moderate	One	b	248
277	8	Pier 7, Girder 4	SER	S	Spall	Bottom Flange of Girder @ Bay 3	A = 0.04 m²	Slight	One	c	249
278	8	Pier 7, Girder 10	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 10	A = 0.16 m²	Moderate	One	b	250
279	8	Pier 7, Girder 10	SER	M	Exposed Rebar	Bottom of Girder @ Bay 10	A = 0.16 m²	Moderate	Two	b	251
280	8	Pier 7, Girder 11	HC	S	Honeycomb	Bottom of Girder @ Bay 11	A = 0.09 m²	Slight	One	c	252
281	8	End Diaphragm	CR	S	Map Cracks	Face of Diaphragm @ Bay 11	t = 0.076 mm	Slight	One	c	253
282	8	Pier 7, Girder 12	SER	S	Exposed Rebar	Outer Face of Girder Downstream	A = 0.02 m²	Slight	One	c	254
283	8	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab @ Downstream	A = 0.03 m²	Slight	One	c	255
284	8	Lighting Post Pedestal	CR	H	Crack	Face of Lighting Post Pedestal	l = 3.00 mm	Heavy	Two	a	322
285	8	Railing	SER	S	Exposed Rebar	Bottom and Midspan of Railing	A = 0.09 m²	Slight	One	c	323
286	9	Deck Slab	SER	H	Spall	Bottom Face of Slab @ Bay 1	A = 0.72 m²	Heavy	One	a	256
287	9	Pier 8, Girder 2	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 1	A = 0.03 m²	Slight	One	c	257
288	9	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab @ Bay 2	A = 0.06 m²	Slight	One	c	258
289	9	Pier 8, Girder 3	SER	S	Spall	Top Flange of Girder @ Bay 2	A = 0.02 m²	Slight	Two	c	259
290	9	End Diaphragm	SER	S	Exposed Rebar	Face of Diaphragm @ Bay 3	A = 0.06 m²	Slight	One	c	260
291	9	Pier 8, Girder 4	SER	S	Exposed Rebar	Face of Girder @ Bay 3	A = 0.04 m²	Slight	One	c	261
292	9	Deck Slab	HC	S	Honeycomb	Bottom of Slab @ Bay 4	A = 0.05 m²	Slight	One	c	262
293	9	Deck Slab	HC	S	Honeycomb	Bottom of Slab @ Bay 5	A = 0.07 m²	Slight	One	c	263
294	9	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab @ Bay 5	A = 0.03 m²	Slight	One	c	264
295	9	Pier 8, Girder 6	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 6	A = 0.04 m²	Slight	One	c	265
296	9	Deck Slab	SER	S	Exposed Rebar	Bottom Face of Slab @ Bay 7	A = 0.10 m²	Slight	One	c	266

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
297	9	End Diaphragm	SER	M	Spall	Pier 8 End Diaphragm @ Bay 9	A = 0.15 m²	Moderate	One	b	267
298	9	Deck Slab	CR	S	Cracks	Bottom Face of Slab @ Bay 9	t = 0.076 mm	Slight	Many	c	268
299	9	End Diaphragm	SER	S	Exposed Rebar	Pier 8 End Diaphragm @ Bay 10	A = 0.04 m²	Slight	One	c	269
300	9	Pier 8, Girder 12	SER	S	Spall	Top Flange of Girder @ Bay 11	A = 0.03 m²	Slight	One	c	270
301	9	Coping	CR	M	Random Cracks	Pier 8 Coping @ Upstream	t = 0.500 mm	Moderate	Many	b	271
302	9	Coping	CR	M	Vertical Cracks	Pier 9 Coping @ Upstream	t = 0.450 mm	Moderate	One	b	298
303	9	Pier 9, Girder 2	HC	M	Honeycomb	Face of Girder @ Bay 1	A = 0.26 m²	Moderate	One	b	299
304	9	Pier 9, Girder 3	SER	S	Exposed Rebar	Top flange of Girder @ Bay 2	A = 0.04 m²	Slight	One	c	300
305	9	End Diaphragm	CR	M	Vertical Cracks	Pier 9 End Diaphragm @ Bay 3	t = 0.400 mm	Moderate	One	b	301
306	9	End Diaphragm	CR	M	Vertical Cracks	Pier 9 End Diaphragm @ Bay 4	t = 0.450 mm	Moderate	One	b	302
307	9	Pier 9, Girder 4	HC	M	Honeycomb	Face of Girder @ Bay 3	A = 0.14 m²	Moderate	One	b	303
308	9	Intermediate Diaphragm	SER	S	Exposed Rebar	Pier 9 End Diaphragm @ Bay 5	A = 0.04 m²	Slight	One	c	303 A
309	9	Deck Slab	CR	S	Crack	Bottom Face of Slab @ Bay 5	t = 0.200 mm	Slight	One	c	304
310	9	Pier 9, Girder 6	SER	S	Spall	Bottom Flange of Girder @ Bay 5	A = 0.08 m²	Slight	One	c	305
311	9	Pier 9, Girder 6	SER	S	Spall	Bottom Flange of Girder @ Bay 6	A = 0.08 m²	Slight	One	c	306
312	9	End Diaphragm	CR	S	Crack	Pier 9 End Diaphragm @ Bay 8	t = 0.300 mm	Slight	One	c	307
313	9	Deck Slab	CR	S	Crack	Bottom Face of Slab @ Bay 9	t = 0.102 mm	Slight	One	c	308
314	9	Pier 9, Girder 10	SER	S	Spall	Bottom Flange of Girder @ Bay 9	A = 0.02 m²	Slight	One	c	309
315	9	Pier 9, Girder 8	SER	S	Exposed Rebar	Bottom Flange of Girder @ Bay 8	A = 0.01 m²	Slight	One	c	310
316	9	End Diaphragm	CR	M	Crack	Pier 9 End Diaphragm @ Bay 10	t = 0.400 mm	Moderate	One	b	311
317	9	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab @ Downstream	A = 0.02 m²	Slight	One	c	312
318	9	Asphalt Pavement	CRPL	S	Longitudinal Cracks	Deck Slab Wearing Course	t = 5 mm	Slight	Many	c	321
319	10	Coping	CR	S	Random Cracks	Pier 10 Coping @ Upstream, Back Side	t = 0.150 mm	Slight	Many	c	231
320	10	Deck Slab	SER	S	Exposed Rebar	Bottom Face of Slab @ Bay 1	A = 0.04 m²	Slight	One	c	232
321	10	Pier 10, Girder 2	SER	S	Exposed Rebar	Top Flange @ Bay 1 near Pier 10	A = 0.06 m²	Slight	One	c	233
322	10	Pier 10, Girder 2	SER	S	Exposed Rebar	Top Flange along & Span of P10&1st Inir Daph @ Bay 2	A = 0.08 m²	Slight	One	c	234
323	10	Pier 10, Girder 3	SER	S	Spall	Top Flange near P10 @ Bay 2	A = 0.10 m²	Slight	One	c	235
324	10	Pier 10, Girder 3	SER	S	Exposed Rebar	Top Flange @ Bay 3	A = 0.06 m²	Slight	One	c	236
325	10	Pier 10, Girder 4	SER	S	Exposed Rebar	End Block @ Bay 4	A = 0.08 m²	Slight	One	c	237
326	10	Pier 10, Girder 7	SER	S	Spall	Top Flange @ Bay 6	A = 0.06 m²	Slight	One	c	238
327	10	Pier 10, Girder 9	SER	S	Spall	Top Flange of Girder @ Bay 9	A = 0.04 m²	Slight	One	c	239
328	10	Deck Slab	HC	S	Honeycomb	Bottom of Slab @ Bay 10	A = 0.02 m²	Slight	One	c	240
329	10	Cantilever Slab	SER	S	Exposed Rebar	Bottom of Slab @ Downstream	A = 0.005 m²	Slight	Many	c	241
330	10	Pier 10, Girder 12	SER	M	Exposed Rebar	Outer Face of Girder @ Downstream	A = 0.18 m²	Moderate	One	b	242
331	11	Steel Bracket	DEF	H	Corrosion / Deformation	Steel Bearing of Girder 1 Abut. "B"	Remarkable Reduction	Heavy	One	a	272
332	11	Breast Wall	CR	M	Vertical Cracks	Abutment "B" near End Upstream	t = 0.500 mm	Moderate	Two	b	273
333	11	End Diaphragm	SER	M	Exposed Rebar	Abutment "B" @ Bay 1	A = 0.21 m²	Moderate	One	b	274
334	11	Deck Slab	CR	S	Random Cracks	Bot. Face of Slab @ Abut. "B", Bay 1	t = 0.076 mm	Slight	Many	c	275
335	11	End Diaphragm	FR	H	Fractured	Abutment "B" @ Bay 2		Heavy	One	a	276
336	11	Abut.B, Girder 3	HC	M	Honeycomb	Bottom Flange of Girder @ Bay 2	A = 0.14 m²	Moderate	One	b	277
337	11	Bearing Plate	CO	H	Corrosion	Abutment "B" Bearing Plate @ Girder 3	Remarkable Reduction	Heavy	One	a	278
338	11	Breast Wall	HC	S	Honeycomb	Abutment "B" @ Bay 2	A = 0.04 m²	Slight	One	c	279
339	11	End Diaphragm	FR	H	Fractured	Abutment "B" @ Bay 3		Heavy	One	a	280
340	11	Shear Block	CR	H	Crack	Abutment "B" @ Bay 3	t = 10.000 mm	Heavy	One	a	281
341	11	End Diaphragm	FR	H	Fractured	Abutment "B" @ Bay 4		Heavy	One	a	282
342	11	Deck Slab	CR	S	Random Cracks	Bottom Face of Slab @ Abut. "B", Bay 4	t = 0.076 mm	Slight	Many	c	283
343	11	End Diaphragm	SER	M	Exposed Rebar	Abutment "B" @ Bay 5	A = 0.12 m²	Moderate	One	b	284
344	11	Abut.B, Girder 6	SER	S	Exposed Rebar	Face of Girder @ Bay 5	A = 0.05 m²	Slight	One	c	285
345	11	Abut.B, Girder 6	HC	S	Honeycomb	Top Flange of Girder @ Bay 6	A = 0.01 m²	Slight	One	c	286
346	11	End Diaphragm	SER	S	Exposed Rebar	Abutment "B" @ Bay 6	A = 0.005 m²	Slight	Three	c	287
347	11	Abut.B, Girder 6	HC	S	Honeycomb	Bottom Flange of Girder @ Bay 7	A = 0.08 m²	Slight	One	c	288
348	11	End Diaphragm	SER	S	Exposed Rebar	Abutment "B" @ Bay 7	A = 0.06 m²	Slight	Three	c	289
349	11	Deck Slab	CR	S	Random Cracks	Bottom Face of Slab @ Abut. "B", Bay 7	t = 0.076 mm	Slight	Many	c	290
350	11	End Diaphragm	SER	S	Exposed Rebar	Abutment "B" @ Bay 8	A = 0.05 m²	Slight	One	c	291
351	11	Deck Slab	HC	S	Honeycomb	Bottom Face of Slab @ Abut. "B", Bay 9	A = 0.03 m²	Slight	One	c	292
352	11	End Diaphragm	SER	S	Exposed Rebar	Abutment "B" @ Bay 10	A = 0.06 m²	Slight	One	c	293
353	11	Deck Slab	CR	S	Transverse Crack	Bottom of Slab @ Abutment "B", Bay 10	t = 0.102 mm	Slight	One	c	294
354	11	Abut.B, Girder 10	SER	S	Exposed Rebar	Top Flange of Girder @ Bay 10	A = 0.06 m²	Slight	One	c	295
355	11	End Diaphragm	SER	S	Exposed Rebar	Abutment "B" @ Bay 11	A = 0.06 m²	Slight	One	c	296
356	11	Cantilever Slab	SER	S	Exposed Rebar	Bottom Face of Slab @ Downstream	A = 0.03 m²	Slight	One	c	297
357	11	Asphalt Pavement	CRPL	S	Corrugation	Deck Slab Wearing Course near Pier 10	t = 5 mm	Slight	One	c	320
358	11	Asphalt Pavement	CRPL	S	Corrugation	App. Road Wearing Course @ Abut. "B"	t = 5 mm	Slight	Two	C	317
359	11	Side Walk	SER	H	Broken Sidewalk	Near Abutment "B"	A = 0.48 m²	Heavy	One	a	319

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
360	1	Approach Railing	HC	S	Honeycomb	Side of Approach Railing	A = 0.03 m²	Slight	One	c	337
361	1	Asphalt Pavement	CRPL	M	Cracks	App. Slab Wearing Course @ Abut. "A"	t = 6 mm	Moderate	Two	b	338
362	1	Side Walk	SER	H	Broken Sidewalk	Near Abutment "A"	A = 1.95 m²	Heavy	One	a	340

Date of Inspection Dec. 18 - 19, 2002
Inspector R. Abad/N. Castro
Checker J.B. Agnes

Name of Bridge : Ma4 MARIKINA BRIDGE

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	Wingwall @ Abut A	CR	H	Vertical Crack	At Face of Abut. Wall	t = 12.5 mm	Heavy	Both Side	a	1
2	1	Trans. Restraining Bar @ Abut A	L/M	H	Loose	End of Girders	80% loosening	Heavy	One	a	2
3	1	End Diaph. @ Abut A	CR	S	Horizontal Crack	Front Face @ Bay 1	t = 0.15 mm	Slight	One	c	3
4	1	Shear Block @ Abut A	CR	S	Random Cracks	Front Face @ Bay 1	t = 0.15 mm	Slight	Several	c	4
5	1	Abut. A Coping	CR	S	Vertical Crack	Front Face @ Bay 1	t = 0.20 mm	Slight	One	c	5
6	1	End Diaph. @ Abut A	CR	S	Transverse Crack	Bottom @ Bay 2	t = 0.15 mm	Slight	Several	c	6
7	1	End Diaph. @ Abut A	CR	S	Horizontal Crack	Bottom @ Bay 3	t = 0.15 mm	Slight	One	c	8
8	1	Shear Block @ Abut A	SER	S	Spall	Corner near G-4 @ Bay 3	A = 0.03 m²	Slight	One	c	9
9	1	Deck Slab @ Bay 4	CR	S	Transverse Crack	Bottom @ Bay 4	t = 0.15 mm	Slight	One	c	10
10	1	End Diaph. @ Abut. A	SER	S	Spall	Bottom @ Bay 4	A = 0.025 m²	Slight	One	c	11
11	1	PSC Girder G-4	SER	S	Spall	End of Girders	A = 0.025 m²	Slight	One	c	12
12	1	Abut. A Coping	CR	S	Horizontal & Vertical Crack	Front Face @ Bay 9	t = 0.20 mm	Slight	One	c	13
13	1	End Diaph. @ Abut A	SER	S	Spall	Bottom	A = 0.05 m²	Slight	One	c	14
14	1	Deck Slab @ Bay 5	CR	S	Transverse Crack	Bottom	t = 0.15 mm	Slight	One	c	15
15	1	End Diaph. @ Abut A	SER	S	Exposed Rebar	Bottom	A = 0.06 m²	Slight	One	c	16
16	1	Deck Slab @ Bay 6	CR	S	Transverse Crack	Bottom near End Diaph.	t = 0.15 mm	Slight	One	c	17
17	1	Deck Slab @ Bay 6	CR	S	Transverse Crack	Bottom @ 1.20 m from End Diaph.	t = 0.15 mm	Slight	One	c	18
18	1	End Diaph. @ Abut A	SER	S	Exposed Rebar	Bottom @ Bay 7	A = 0.05 m²	Slight	One	c	19
19	1	Shear Block on Pier	SER	S	Spall	Baside Girder G-8	A = 0.05 m²	Slight	One	c	20
20	1	Deck Slab @ Bay 1	CR	S	Transverse Crack	Bottom @ 1.2 m from End Diaph.	t = 0.15 mm	Slight	One	c	21
21	1	End Diaph. @ Abut A	CR	S	Crack	Bottom @ Bay 8	t = 0.15 mm	Slight	One	c	22
22	1	Deck Slab @ Bay 8	CR	S	Transverse Crack	Bottom @ 1.2 m from End Diaph.	t = 0.15 mm	Slight	One	c	23
23	1	End Diaph. @ Abut A	CR	S	Crack	Bottom near G-10 @ Bay 9	t = 0.25 mm	Slight	One	c	24
24	1	Deck Slab @ Bay 9	CR	S	Transverse Crack	Bottom @ 1.2 m from End Diaph.	t = 0.15 mm	Slight	One	c	25
25	1	End Diaph. @ Abut A	SER	S	Exposed Rebar	Bottom @ Bay 10	A = 0.10 m²	Slight	One	c	26
26	1	PSC Girder G-11	CR	S	Diagonal Crack	Web near end Block @ Bay 11	t = 0.15 mm	Slight	One	c	27
27	1	Cantilever Slab	SER	S	Exposed Rebar	Bottom	A = 0.03 m²	Slight	One	c	28
28	1	Sidewalk	MISD	M	Fracture Due to Settlement	Approach Slab	Diam. = 25 mm	Moderate	One	b	109
29	1	Deck Slab	CR	S	Random Cracks	Top of Slab	t = 0.20 mm	Slight	Several	c	110 / 112
30	1	Railing near P3	SER	S	Spall	15 m from Abut A	A = 0.019 m²	Slight	One	c	111
31	1	Median	SER	S	Spall	Above Abut. A @ Expansion Joint	A = 0.06 m²	Slight	Two	c	127
32	1	Expansion Joint	EJ	M	Expansion Joint Separation	@ Abut. A	Abnormal Laying gap = 6 mm	Moderate	One	b	128
33	1	Sidewalk	CR	S	Cracks	Approach Slab	t = 0.25 mm	Slight	Several	c	129
34	1	Railing	SER	S	Spall	Bottom 4.7 m from P1	A = 0.08 m²	Slight	One	c	130
35	2	Pier 1 Coping	CR	M	Vertical Crack	At end along U/S.	t = 0.60 mm	Moderate	One	b	
36	2	Pier 1 Coping	CR	S	Random Cracks	Front Face near end along U/S.	t = 0.10 mm	Slight	Several	c	29
37	2	Cantilever Slab	SER	S	Spall	Bottom along U/S.	A = 0.03 m²	Slight	One	c	30
38	2	Deck Slab @ Bay 1	SER	S	Spall	Bottom bet. End & interm. Diaph	A = 0.06 m²	Slight	One	c	31
39	2	Deck Slab @ Bay 2	CR	M	Crack	End corner above diaph.	t = 0.35 mm	Moderate	One	b	32
40	2	Deck Slab @ Bay 2	CR	M	Transverse Crack	Bottom	t = 0.35 mm	Moderate	One	b	33
41	2	Deck Slab @ Bay 3	HC	M	Honeycomb	Bottom	A = 0.18 m²	Moderate	One	b	34
42	2	End Diaph. @ Bay 3	CR	H	Horizontal Crack	Top of Diaph.	t = 1.8 mm	Heavy	One	a	35
43	2	Pier 1 Coping	CR	S	Random Cracks	Front Face All Bays	t = 0.10 mm	Slight	Several	c	36
44	2	End Diaph. @ Pier 1	HC	S	Honeycomb	Front Face @ Bay 7	A = 0.06 m²	Slight	One	c	37
45	2	End Diaph. @ Pier 1	HC	S	Honeycomb	Front Face @ Bay 8	A = 0.045 m²	Slight	One	c	38
46	2	End Diaph. @ Pier 1	HC	S	Honeycomb	Front Face @ Bay 10	A = 0.06 m²	Slight	One	c	39
47	2	PSC Girder G-12	CR	S	Random Cracks	Web of Girder	t = 0.15 mm	Slight	Several	c	40
48	2	Pier 1 Coping	CR	S	Random Cracks	Front Face near End D/S	t = 0.30 mm	Slight	Several	c	
49	2	Pier 1 Columns	CR	M	Random Cracks	Front Face near End D/S	t = 0.40 mm	Moderate	Several	b	
50	2	Pier 1 Coping	CR	S	Random Cracks	Face of Coping	t = 0.20 mm	Slight	Several	c	
51	2	Rail Post	SER	S	Spall	Top of Split Post	A = 0.038 m²	Slight	One	c	113
52	2	Deck Slab	SER	S	Spall	Top of Slab 3.5 m from P1	A = 0.0875 m²	Slight	One	c	114
53	2	Rail Post	SER	S	Spall	Top of Post 8.5 m from P1	A = 0.0625 m²	Slight	One	c	115
54	2	Rail Post	SER	S	Spall	Split Post 12 m from P2	A = 0.075 m²	Slight	One	c	116
55	2	Deck Slab	SER	S	Exposed Rebar	Top of Slab near Sidewalk 8.6m fr. P2	A = 0.03 m²	Slight	One	c	117
56	2	Railing	SER	S	Exposed Rebar	Bottom 3.5 m from P2	A = 0.03 m²	Slight	One	c	118

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
57	2	Sidewalk	SER	S	Spall	Top of Curb 3m from P2	A = 0.015 m²	Slight	One	c	119
58	2	Railing	SER	S	Spall	Bottom 10m from P2	A = 0.08 m²	Slight	One	c	131
59	3	Pier 2 Coping	CR	S	Random Cracks	At End along U/S.	t = 0.30 mm	Slight	Several	c	101
60	3	Cantilever Slab	CR	S	Random Cracks	Bottom	t = 0.25 mm	Slight	Several	c	102
61	3	Pier 2 Coping	CR	S	Random Cracks	Coping Face @ Cantilever	t = 0.30 mm	Slight	Several	c	103
62	3	End Diaph. @ Pier 2	HC	S	Honeycomb	Front Face along Bay 1-7, 10 & 11	A = 0.08 m²	Slight	One/Diaph.	c	104
63	3	Deck Slab @ Bay 2	HC	M	Honeycomb	Bottom	A = 0.20 m²	Moderate	One	b	105
64	3	1st Interrm. Diaph.	HC	M	Honeycomb	Back Face	A = 0.15 m²	Moderate	One	b	106
65	3	End Diaph. @ Pier 2	HC	S	Honeycomb	Front Face	A = 0.08 m²	Slight	One	c	107
66	3	Cantilever Slab	SER	M	Spall	Bottom	A = 0.30 m²	Moderate	One	b	108
67	3	Railing	SER	S	Exposed Rebar	Bot. 9m from P3	A = 0.03 m²	Slight	One	c	120
68	3	Railing	SER	S	Spall	Bot. 12 m from P3	A = 0.0825 m²	Slight	One	c	121
69	3	Railing	SER	S	Spall	Bot. 8.5 m from P3	A = 0.20 m²	Slight	One	c	133
70	3	Deck Slab	D/D	S	Deterieration on Top	7m from P3	Progressive Deterioration	Slight	Several	c	134
71	4	Cantilever Slab D/S	SER	S	Exposed Rebar	Bottom near Back Wall	A = 0.06 m²	Slight	Several	c	62
72	4	End Diaph. @ Pier 4	HC	S	Honeycomb	Back Face @ Bay 2	A = 0.06 m²	Slight	One	c	76
73	4	End Diaph. @ Pier 4	HC	S	Honeycomb	Back Face @ Bay 3	A = 0.06 m²	Slight	One	c	77
74	4	PSC Girder G-4	HC	S	Honeycomb	Top Flange @ Bay 4	A = 0.04 m²	Slight	One	c	78
75	4	PSC Girder G-5	SER	S	Spall	Top Flange @ Bay 4	A = 0.06 m²	Slight	One	c	79
76	4	PSC Girder G-6	SER	S	Exposed Rebar	Bottom	A = 0.03 m²	Slight	Several	c	80
77	4	Interm. Diaph.	HC	M	Honeycomb	Front Face @ Bay 7	A = 0.15 m²	Moderate	One	b	81
78	4	Deck Slab @ Bay 8	HC	S	Honeycomb	Bottom	A = 0.06 m²	Slight	One	c	82
79	4	Deck Slab @ Bay 9	SER	M	Exposed Rebar due to Thin Cover	Bottom	A = 0.20 m²	Moderate	One	b	83
80	4	Deck Slab @ Bay 10	HC	S	Honeycomb	Bottom	A = 0.10 m²	Slight	One	c	84
81	4	PSC Girder G-11	SER	S	Exposed Rebar	Top Flange @ Bay 11	A = 0.01 m²	Slight	One	c	85
82	4	End Diaph. @ Pier 4	HC	S	Honeycomb	Bottom @ Bay 11	A = 0.09 m²	Slight	One	c	86
83	4	Cantilever Slab	SER	S	Spall	Bottom	A = 0.10 m²	Slight	Several	c	87
84	4	Pier 3 Coping	CR	S	Random Crack	End of Coping U/S.	t = 0.15 mm	Slight	Several	c	88
85	4	End Diaph. @ Pier 3	HC	M	Honeycomb	End of Diaph. U/S.	A = 0.12 m²	Moderate	One	b	89
86	4	Cantilever Slab	SER	M	Spall	Bottom	A = 0.14 m²	Moderate	One	b	90
87	4	End Diaph. @ Pier 3	HC	S	Honeycomb	Top Portion from G-2 @ Bay 1	A = 0.023 m²	Slight	One	c	91
88	4	End Diaph. @ Pier 3	HC	S	Honeycomb	Front Face @ Bay 2	A = 0.0625 m²	Slight	One	c	92
89	4	End Diaph. @ Pier 3	HC	S	Honeycomb	Front Face @ Bay 3	A = 0.06 m²	Slight	One	c	93
90	4	End Diaph. @ Pier 3	HC	S	Honeycomb	Front Face @ Bay 4	A = 0.075 m²	Slight	One	c	94
91	4	End Diaph. @ Pier 3	HC	S	Honeycomb	Front Face @ Bay 5	A = 0.09 m²	Slight	One	c	96
92	4	Deck Slab @ Bay 9	CR	M	Horizontal Crack	Bottom	t = 0.35 mm	Moderate	One	b	95
93	4	Deck Slab @ Bay 3	CR	S	Random Cracks	Bottom	t = 0.30 mm	Slight	Several	c	97
94	4	Pier 3 Coping	CR	M	Random Cracks	Front Face	t = 0.50 mm	Moderate	Several	b	98
95	4	Deck Slab @ Bay 11	CR	S	Crack	At Hunch near Diaph.	t = 0.30 mm	Slight	One	c	99
96	4	Railing near P3	SER	S	Spall	Bot. near C3 Panel	A = 0.225 m²	Slight	One/Panel	c	100
97	4	Railing	SER	S	Spall	Bot. 18 m from P3	A = 0.36 m²	Slight	One	c	122
98	4	Rail Post	SER	S	Spall	Split Post above P4	A = 0.023 m²	Slight	One	c	123
99	4	Median	SER	S	Exposed Rebar	Top, 12 m from P3	A = 0.30 m²	Slight	Four	c	135
100	4	Railing	SER	S	Spall	Bot., 14 m from P4	A = 0.20 m²	Slight	One	c	
101	5	Abut. B Coping	CR	S	Random Cracks	Face near End	t = 0.20 mm	Slight	Several	c	41
102	5	End Diaph. @ Abut B	SER	S	Spall	Bottom @ Bay 1	A = 0.03 m²	Slight	One	c	42
103	5	Deck Slab @ Bay 1	CR	S	Transverse Crack	Bottom near End Diaph.	t = 0.20 mm	Slight	One	c	43
104	5	PSC Girder G-2	SER	S	Exposed Rebar	Bot. near Abut. 3	A = 0.01 m²	Slight	Two	c	44
105	5	Abut B Coping	CR	S	Horizontal Crack	0.3 m from Top	t = 0.30 mm	Slight	One	c	45
106	5	Abut B Coping	CR	S	Random Cracks	Face of Coping U/S	t = 0.30 mm	Slight	Several	c	46
107	5	Deck Slab @ Bay 1	CR	S	Transverse Crack	Bottom Near End Diaph.	t = 0.25 mm	Slight	One	c	47
108	5	End Diaph/ @ Bay B	SER	S	Spall	Bottom @ Bay 3	A = 0.07 m²	Slight	One	c	48
109	5	Anchor Bar	M	M	Missing	PSC Girder G-5	Remarkable Damage	Moderate	One	b	49
110	5	End Diaph. @ Abut B	CR	S	Random Cracks	Bottom @ Bay 5	t = 0.20 mm	Slight	Several	c	50
111	5	Deck Slab @ Bay 5	CR	S	Random Cracks	Bottom @ Bay 5	t = 0.25 mm	Slight	Several	c	51
112	5	PSC Girder G-6	SER	S	Spall	At Anchor Bar Location	A = 0.04 m²	Slight	One	c	52
113	5	End Diaph. @ Abut B	CR	S	Vertical Crack	At end @ Bay 6 near G-6	t = 0.30 mm	Slight	One	c	53
114	5	End Diaph. @ Abut B	SER	S	Spall	Bottom @ Bay 7	A = 0.0375 m²	Slight	One	c	54
115	5	End Diaph. @ Abut B	SER	M	Spall	Bottom @ Bay 8	A = 0.12 m²	Moderate	One	b	55
116	5	Deck Slab @ Bay 8	SER	S	Exposed Rebar	Bottom @ Bay 8 1.00 from End Diaph.	A = 0.03 m²	Slight	Several	c	56
117	5	End Diaph. @ Abut B	SER	S	Spall	Bottom @ Bay 9	A = 0.0625 m²	Slight	One	c	57
118	5	Anchor Bar	M	M	Missing	PSC Girder G-10 @ Abut. B	Remarkable Damage	Moderate	One	b	58
119	5	End Diaph. @ Abut B	SER	S	Spall	Bottom @ Bay 10	A = 0.03 m²	Slight	One	c	59

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
120	5	End Diaph. @ Abut. B	SER	S	Spall	Bottom @ Bay 11	A = 0.06 m²	Slight	One	c	60
121	5	Deck Slab @ Bay 11	CR	S	Random Cracks	Bottom near end Diaph. @ Abut. A	t = 0.25 mm	Slight	Several	c	61
122	5	Pier 4 Coping	CR	M	Random Cracks	Back Face	t = 0.60 mm	Moderate	Several	b	63
123	5	Pier 4 Coping	CR	S	Random Cracks	Front Face @ Cantilever	t = 0.25 mm	Slight	Several	c	64
124	5	PSC Girder G-2	CR	S	Random Cracks	End Block @ Pier 4	t = 0.15 mm	Slight	Several	c	66
125	5	End Diaph. @ Pier 4	HC	S	Honeycomb	End along U/S.	A = 0.06 m²	Slight	One	c	65
126	5	Deck Slab @ Bay 1	CR	S	Random Cracks	Bottom	t = 0.30 mm	Slight	Several	c	67
127	5	Deck Slab @ Bay 3	SER	S	Spall	Bottom	A = 0.06 m²	Slight	One	c	68
128	5	Deckl Slab @ Bay 4	HC	S	Honeycomb	Bottom	A = 0.10 m²	Slight	One	c	69
129	5	Deck Slab @ Bay 4	HC	S	Honeycomb	Front Face near. Jt. of G-5	A = 0.06 m²	Slight	One	c	70
130	5	Pier 5 Coping	D/D	S	Deterioration of Plaster	Front Face	A = 0.075 m²	Slight	Several	c	71
131	5	Deck Slab @ Bay 6	HC	S	Honeycomb	Bottom	A = 0.06 m²	Slight	One	c	72
132	5	End Diaph. @ Pier 4	HC	S	Honeycomb	Front Face @ Bay 9	A = 0.09 m²	Slight	One	c	73
133	5	Cantilever Slab	SER	M	Spall	Bottom near P4	A = 0.20 m²	Moderate	One	b	74
134	5	Pier 4 Coping	CR	M	Random Cracks	Front Face	t = 0.60 mm	Moderate	Several	b	
135	5	Cantilever Slab	SER	S	Exposed Rebar	Bottom	A = 0.02 m²	Slight	Several	c	75
136	5	Railing	SER	S	Spall	Bottom near P4	A = 0.36 m²	Slight	One	c	124
137	5	Railing	SER	S	Spall	Bot. 3.4 m from P4	A = 0.20 m²	Slight	One	c	125
138	5	Railing	SER	S	Spall	Top 17 m from Abut. B	A = 0.05 m²	Slight	One	c	126
139	5	Railing	SER	S	Spall	Top, 2 m from P4	A = 0.20 m²	Slight	One	c	137
140	5	Railing	SER	S	Spall	Bottom, 9 m from Abut. B	A = 0.03 m²	Slight	One	c	138
141	5	Railing	SER	S	Spall	Bottom, 2 m from Abut. B	A = 0.12 m²	Slight	One	c	139
142	5	Sidewalk	SER	H	Spall	Top	A = 0.80 m²	Heavy	One	a	140
143	5	Deck Slab	CR	S	Random Cracks	Top of Slab Typ. @ all Spans	t = 0.25 mm	Slight	Several	c	132

Date of Inspection : Nov.21 / Dec. 5&7. 2002
Inspector : R. Abad/E. Pagaragan
Checker : J. B. Agnes

Name of Bridge : Ma5 SAN JOSE BRIDGE

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Nature	Location/ Pattern	Scale	Severity	No. of Damages	Remarks (a, b, c)	Photo No.
1	1	Railing	SER	S	Exposed Rebar	End of Railing @ Abut. "A", D/S	A = 0.03 m²	Slight	One	c	40
2	1	End Diaphragm	SER	S	Spall	Upstream Side of Abut. "A"	A = 0.06 m²	Slight	One	c	8
3	1	Curb	SER	S	Exposed Rebar	Top of abut. "A" @ Exp. Joint	A = 0.03 m²	Slight	One	c	39
4	1	PSC Girder, G-1	CR	S	Vertical Crack	End Face of Girder; 0.30 m. from Abut. "A"	t = 0.178 mm	Slight	One	c	1
5	1	PSC Girder, G-1	CR	S	Longitudinal Crack	Top Flange of Girder	t = 0.102 mm	Slight	One	c	2
6	1	PSC Girder, G-1	CR	S	Vertical Crack	End Face of Girder ; 0.30 m. from Abut. "A"	t = 0.178 mm	Slight	One	c	4
7	1	Abutment "A", End Diaphragm (Cross Beam)	CR	S	Longitudinal Crack	Face of Diaphragm near G-6 @ Bay 7	t = 0.102 mm	Slight	One	c	6
8	1	Steel Bearing (Rocker)	CO	M	Corrosion	Steel Bearing of G-1 @ Abut. "A"	Reduction of Cross Section	Moderate	One	b	3
9	1	Steel Bearing (Rocker)	CO	M	Corrosion	Steel Bearing of G-5 @ Abut. "A"	Reduction of Cross Section	Moderate	One	b	5
10	1	Abutment "A", Backwall	CR	S	Vertical Crack	Downstream Side of Backwall	t = 0.10 mm	Slight	One	c	7
11	1	Pier 1, Expansion Joint	CRPL	S	Pothole	Wearing Course of Pavement	D = 10 mm	Slight	One	c	9
12	1	Pier 1, Diaphragm Wall	CR	M	Vertical Crack	D/S of Wall;0.90 m.fr. Centr Column @ B.S.	t = 0.500 mm	Moderate	One	b	26
13	1	Pier 1, Diaphragm Wall	CR	H	Vertical Crack	D/S of Wall;0.90 m.fr. Centr Column @ B.S.	t = 0.635 mm	Heavy	One	a	30
14	1	Pier 1, Diaphragm Wall	CR	M	Vertical Crack	U/S of Wall;1.00 m.fr. Centr Column @ F.S.	t = 0.410 mm	Moderate	One	b	27
15	1	Pier 1, Diaphragm Wall	CR	S	Random Cracks	Face of Diaphragm Wall @ Front Side	t = 0.076 mm	Slight	Many	c	28
16	1	Pier 1, Column	HC	S	Honeycomb	Face of Exterior Column @ DS	A = 0.04 m²	Slight	One	c	32
17	1	Pier 1, Foundation	HC	S	Honeycomb	Side of Footing @ Downstream	A = 0.12 m²	Slight	One	c	38
18	2	Rail Post	SER	S	Exposed Rebar	Face of Split Post	A = 0.02 m²	Slight	One	c	10
19	2	Deck Slab	HC	S	Honeycomb	Bot. of Slab @ Bay 4 3.50m from Pier 2	A = 0.002 m²	Slight	One	c	29
20	2	Pier 2, Diaphragm Wall	CR	H	Vertical Crack	D/S ; 1.00 m. from Center Column	t = 1.20 mm	Heavy	One	a	23
21	2	Pier 2, Diaphragm Wall	CR	H	Vertical Crack	U/S ; 1.90 m. from Center Column	t = 0.610 mm	Heavy	One	a	24
22	2	Pier 2, Center Column	CR	S	Horizontal Crack	2.40 m. from Top of Footing	t = 0.173 mm	Slight	One	c	25
23	3	Railing	SER	S	Exposed Rebar	Bottom Face of Railing	A = 0.01 m²	Slight	One	c	11
24	3	Railing	SER	S	Exposed Rebar	Bottom Face of Railing @ Upstream	A = 0.01 m²	Slight	One	c	15
25	3	Railing	SER	S	Spall	Face of Railing @ Split Post, DS	A = 0.02 m²	Slight	One	b	42
26	3	Railing and Post	SER	S	Spall	Face of Railing and Split Post	A = 0.03 m²	Slight	Two	c	13
27	3	Rail Post	SER	S	Spall	Face of Split Post @ Downstream	A = 0.02 m²	Slight	One	c	41
28	3	Light Pole	M	M	Missing	Upstream Side	Remarkable Missing	Moderate	One	c	12
29	3	Sidewalk	SER	S	Exposed Rebar	Top of Sidewalk along Exp. Joint @ US	A = 0.028 m²	Slight	One	c	14
30	3	Deck Slab	SER	S	Exposed Rebar	Bottom of Slab, 5.00 m. from Pier 3	A = 0.01 m²	Slight	One	c	77
31	3	PSC Girder, G-1	CR	S	Vertical Crack	End Face of Girder @ Pier 3	t = 0.178 mm	Slight	One	c	71
32	3	PSC Girder, G-3	CR	S	Vertical Crack	End Face of Girder @ Pier 3	t = 0.15 mm	Slight	One	c	73
33	3	End Diaphragm	CR	S	Vertical Crack	Face of Diaphragm @ Bay 1	t = 0.10 mm	Slight	One	c	78
34	3	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-3 @ Pier 3	Reduction of Cross Section	Moderate	One	b	74
35	3	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-4 @ Pier 3	Reduction of Cross Section	Moderate	One	b	76

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
36	3	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-8 @ Pier 3	Reduction of Cross Section	Moderate	One	b	81
37	3	Pier 3, Coping	CR	S	Random Cracks	Face of Coping Below Girder G-2	t = 0.10 mm	Slight	Many	c	72
38	3	Pier 3, Coping	CR	S	Vertical Crack	Face of Coping Below Girder G-3	t = 0.15 mm	Slight	One	c	75
39	3	Pier 3, Coping	SER	S	Exposed Rebar	Face of Coping Below Girder G-3	A = 0.01 m²	Slight	Three	c	80
40	3	Pier 3, Diaphragm Wall	CR	H	Vertical Crack	0.90 m. from Center Column @ Upstream	t = 2.00 mm	Heavy	One	a	34
41	3	Pier 3, Diaphragm Wall	CR	H	Horizontal Crack	1.20 m. from top of Footing	t = 1.20 mm	Heavy	One	a	35
42	3	Pier 3, Diaphragm Wall	CR	H	Vertical Crack	1.60 m. from Center Column @ DS	t = 0.610 mm	Heavy	One	a	36
43	3	Pier 3, Foundation	HC	S	Honeycomb	Under Side of Footing	A = 0.24 m²	Slight	One	c	33
44	3	Pier 3, Foundation	SER	S	Exposed Rebar	Top of Footing @ Downstream	A = 0.01 m²	Slight	One	c	37
45	4	Railing	SER	S	Exposed Rebar	Bot.Face of Railing, 8.00m.fr.Pier 3 @ D/S	A = 0.02 m²	Slight	One	c	43
46	4	Railing	SER	S	Exposed Rebar	Face of Railing @ Split Post, DS	A = 0.06 m²	Slight	One	c	44
47	4	Railing	SER	S	Spall	Bottom Face of Railing @ DS	A = 0.005 m²	Slight	One	c	45
48	4	PSC Girder, G-1	CR	S	Vertical Crack	End Face of Girder @ Pier 3	t = 0.15 mm	Slight	One	c	79
49	4	PSC Girder, G-1	CR	S	Vertical Crack	End Face of Girder @ Pier 4	t = 0.15 mm	Slight	One	c	99
50	4	PSC Girder, G-1	CR	M	Longitudinal Crack	Outer Top Flange of Girder @ Upstream	t = 0.35 mm	Moderate	One	b	100
51	4	PSC Girder, G-1	CR	M	Random Cracks	Outer Face of Girder @ Upstream	t = 0.35 mm	Moderate	One	b	100
52	4	Steel Bearing	L/M	S	Loose Nut	Steel Bearing of G-6 @ Pier 3	One Portion	Slight	One	c	82
53	4	Steel Bearing	L/M	S	Loose Nut	Steel Bearing of G-7 @ Pier 3	One Portion	Slight	One	c	83
54	4	Pier 4, Diaphragm Wall	CR	H	Vertical Crack	Face of Wall @ Upstream	t = 0.864 mm	Heavy	One	a	87
55	4	Pier 4, Diaphragm Wall	CR	S	Vertical Crack	Face of Column @ Downstream	t = 0.127 mm	Slight	One	c	89
56	4	Pier 4, Diaphragm Wall	CR	H	Horizontal and Vertical Crack	Face of Wall @ Downstream	t = 0.610 mm	Heavy	Two	a	90
57	4	Pier 4, Diaphragm Wall	CR	S	Vertical Crack	Face of Wall @ Downstream	t = 0.076 mm	Slight	One	c	91
58	4	Pier 4, Diaphragm Wall	CR	H	Vertical Crack	Face of Wall @ Downstream	t = 1.194 mm	Heavy	One	a	93
59	4	Pier 4, Diaphragm Wall	HC	S	Honeycomb	Face of Column @ Upstream	A = 0.36 m²	Slight	One	c	94
60	4	Pier 4, Center Column	HC	S	Honeycomb	Face of Column @ Upstream	A = 0.05 m²	Slight	One	c	88
61	4	Pier 4, Center Column	HC	S	Honeycomb	Face of Column @ Downstream	A = 0.15 m²	Slight	One	c	92
62	4	Pier 4, Column	HC	S	Honeycomb	Face of External Column @ Upstream	A = 0.33 m²	Slight	One	c	85
63	4	Pier 4, Column	SER	S	Exposed Rebar	Face of External Column @ Upstream	A = 0.08 m²	Slight	One	c	86
64	4	Pier 4, Column	HC	S	Honeycomb	Face of Column @ Upstream	A = 0.32 m²	Slight	One	c	95
65	4	Pier 4, Column	CR	M	Vertical Crack	Face of Column @ Upstream	t = 0.305 mm	Moderate	One	b	96
66	4	Pier 4, Column	CR	S	Vertical Crack	Face of Column@US, 5.00 m.fr.Top of Ftg.	t = 0.229 mm	Slight	One	c	97
67	4	Pier 4, Foundation	HC	S	Honeycomb	Bottom Face of Footing @ DS	A = 0.35 m²	Slight	One	c	101
68	4	Pier 4, PSC Pile	M	S	Missing	Row 1 near End of Footing	One Pile	Slight	One	c	98
69	5	Railing	SER	S	Spall	Face of Railing along Split Post @ US	A = 0.02 m²	Slight	One	c	16
70	5	Rail Post	SER	S	Exposed Rebar	Bot.Face of Post, 16.00m. fr.Pier4@D/S	A = 0.01 m²	Slight	One	c	47
71	5	Light Pole	M	M	Missing	Downstream Side	Remarkable Missing	Moderate	One	b	46
72	5	Deck Slab	HC	S	Honeycomb	Bot. of Slab @ Bay 4 near Int. Diaphragm	A = 0.003 m²	Slight	One	c	112
73	5	PSC Girder, G-1	CR	S	Random Cracks	Outer Face of Girder	t = 0.173 mm	Slight	Many	c	113
74	5	PSC Girder, G-1	SER	S	Exposed Rebar	End Face of Girder	A = 0.03 m²	Slight	One	c	115
75	5	PSC Girder, G-8	CR	S	Longitudinal Crack	Top Flange of Girder near Pier 4	t = 0.102 mm	Slight	One	c	110
76	5	PSC Girder, G-8	CR	M	Longitudinal Crack	Bot. Flange of Girder, 3.00 m. from Pier 4	t = 0.30 mm	Moderate	One	b	111
77	5	PSC Girder, G-8	CR	S	Random Cracks	Outer Face of Girder	t = 0.173 mm	Slight	Many	c	113
78	5	Steel Bearing	DEF	M	Deformed	Steel Bearing of G-1 @ Pier 4	Remarkable Deflection	Moderate	One	b	102
79	5	Steel Bearing (Rocker)	DEF	M	Deformed	Steel Bearing of G-2 @ Pier 4	Remarkable Deflection	Moderate	One	b	103
80	5	Steel Bearing (Rocker)	DEF	M	Deformed	Steel Bearing of G-3 @ Pier 4	Remarkable Deflection	Moderate	One	b	104
81	5	Steel Bearing (Rocker)	DEF	M	Deformed	Steel Bearing of G-4 @ Pier 4	Remarkable Deflection	Moderate	One	b	105
82	5	Steel Bearing (Rocker)	DEF	M	Deformed	Steel Bearing of G-5 @ Pier 4	Remarkable Deflection	Moderate	One	b	106
83	5	Steel Bearing (Rocker)	DEF	M	Deformed	Steel Bearing of G-6 @ Pier 4	Remarkable Deflection	Moderate	One	b	107
84	5	Steel Bearing (Rocker)	DEF	M	Deformed	Steel Bearing of G-7 @ Pier 4	Remarkable Deflection	Moderate	One	b	108
85	5	Steel Bearing (Rocker)	DEF	M	Deformed	Steel Bearing of G-8 @ Pier 4	Remarkable Deflection	Moderate	One	b	109
86	5	Steel Bearing (Rocker)	L/M	S	Loose Nut	Steel Bearing of G-8 @ Pier 4	One Portion	Slight	One	c	109
87	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-1 @ Pier 5	Remarkable Reduction	Heavy	One	a	116
88	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-2 @ Pier 5	Remarkable Reduction	Heavy	One	a	117
89	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-3 @ Pier 5	Remarkable Reduction	Heavy	One	a	118
90	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-4 @ Pier 5	Remarkable Reduction	Heavy	One	a	119
91	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-5 @ Pier 5	Remarkable Reduction	Heavy	One	a	120
92	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-6 @ Pier 5	Remarkable Reduction	Heavy	One	a	121
93	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-7 @ Pier 5	Remarkable Reduction	Heavy	One	a	122
94	5	Steel Bearing (Rocker)	CO	H	Corrosion	Steel Bearing of G-8 @ Pier 5	Remarkable Reduction	Heavy	One	a	123
95	5	Pier 4, Coping	CR	H	Vertical Crack	Face of Coping Below Girder 3	t = 1.63 mm	Heavy	One	a	114
96	5	Pier 5, Coping	CR	S	Random Cracks	Face of Coping	t = 0.102 mm	Slight	Many	c	124
97	5	Pier 5, Coping	CR	M	Vertical Crack	Face of Coping Below Girder 1	t = 0.40 mm	Moderate	One	b	126
98	5	Pier 5, Ext. Column	SER	S	Exposed Rebar	Face of Column, 2.00 m. from end	A = 0.03 m²	Slight	One	c	125

Damage No.	Span No.	Name of Member	Type of Damage	Rank of Damage	Description of Damage					Remarks (a, b, c)	Photo No.
					Nature	Location/ Pattern	Scale	Severity	No. of Damages		
99	5	Pier 5, Diaphragm Wall	CR	M	Vertical Crack	1.65 m. from Center Column @ Upstream	t = 0.508 mm	Moderate	Two	b	66
100	5	Pier 5, Diaphragm Wall	CR	M	Vertical Crack	1.00 m. from Center Column @ DS	t = 0.308 mm	Moderate	One	b	67
101	5	Pier 5, Foundation	HC	S	Honeycomb	Bottom Face of Footing @ Front Side	A = 0.01 m²	Slight	Two	c	65
102	5	Pier 5, Foundation	SER	S	Spall	Top of Pile	A = 0.01 m²	Slight	Two	c	68
103	5	Pier 5, Foundation	SER	S	Spall	Top of Pile	A = 0.15 m²	Slight	Three	c	69
104	6	Rail Post	SER	S	Exposed Rebar	Face of Post @ Downstream	A = 0.01 m²	Slight	One	c	49
105	6	Asphalt Pavement	CRPL	S	Pothole	Wearing Course of Pavement	19 mm ø	Slight	One	c	48
106	6	Asphalt Pavement	CRPL	S	Pothole	Wearing Course @ Exp. Joint Pier 6	19 mm ø	Slight	One	c	50
107	6	Asphalt Pavement	CRPL	M	Pothole	Wearing Course @ Exp. Joint Pier 6	40 mm ø	Moderate	One	b	51
108	6	End Diaphragm	CR	S	Diagonal Crack	Face of Diaphragm @ Bay 1	t = 0.173 mm	Slight	One	c	129
109	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-1 @ Pier 6	Reduction of Cross Section	Moderate	One	b	132
110	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-2 @ Pier 6	Reduction of Cross Section	Moderate	One	b	133
111	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-3 @ Pier 6	Reduction of Cross Section	Moderate	One	b	134
112	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-4 @ Pier 6	Reduction of Cross Section	Moderate	One	b	135
113	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-5 @ Pier 6	Reduction of Cross Section	Moderate	One	b	136
114	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-6 @ Pier 6	Reduction of Cross Section	Moderate	One	b	137
115	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-7 @ Pier 6	Reduction of Cross Section	Moderate	One	b	138
116	6	Steel Bearing	CO	M	Corrosion	Steel Bearing of G-8 @ Pier 6	Reduction of Cross Section	Moderate	One	b	139
117	6	Pier 6, Diaphragm Wall	CR	M	Vertical Crack	2.70 m. from Outer Column @ Upstream	t = 0.387 mm	Moderate	One	b	61
118	6	Pier 6, Diaphragm Wall	CR	S	Vertical Crack	0.30 m. from Center Column @ Upstream	t = 0.203 mm	Slight	One	c	62
119	6	Pier 6, Diaphragm Wall	CR	H	Vertical Crack	Face of Wall @ Downstream Side	t = 0.737 mm	Heavy	One	a	63
120	6	Pier 6, Outer Column	SER	S	Spall	Face of Column @ Downstream Side	A = 0.45 m²	Slight	One	c	64
121	6	Pier 6, Outer Column	CR	H	Vertical Crack	Face of Column @ Downstream Side	t = 0.94 mm	Heavy	One	a	70
122	7	Railing	CR	H	Crack	Upstream Side Railing	t = 0.81 mm	Heavy	Three	a	18
123	7	Railing	SER	S	Exposed Rebar	Face of Railing @ Downstream	A = 0.03 m²	Slight	One	c	54
124	7	Rail Post	SER	M	Exposed Rebar	Face of Post @ Upstream	A = 0.12 m²	Moderate	Two	b	18
125	7	Rail Post	SER	S	Spall	Face of Post @ Downstream	A = 0.01 m²	Slight	One	c	52
126	7	Rail Post	SER	S	Spall	Face of Split Post @ Downstream	A = 0.05 m²	Slight	One	c	53
127	7	Cantilever Slab	SER	S	Exposed Rebar	Bottom Edge of Sidewalk	A = 0.04 m²	Slight	One	c	130
128	7	Cantilever Slab	HC	S	Honeycomb	Bottom of Sidewalk	A = 0.05 m²	Slight	One	c	131
129	7	Corbel for Light Pole	SER	S	Exposed Rebar	Face of Corbel @ Downstream	A = 0.01 m²	Slight	One	c	127
130	7	Asphalt Pavement	CRPL	S	Pothole	Wearing Course near Exp. Joint @ Pier 6	19 mm ø	Slight	One	c	17
131	7	PSC Girder; G-1	SER	S	Spall	Bottom Face of Girder	A = 0.01 m²	Slight	One	c	140
132	7	PSC Girder, G-1	SER	S	Exposed Rebar	Outer Face of Girder @ Midspan	A = 0.01 m²	Slight	One	c	128
133	8	Approach Slab	CR	H	Random Cracks	Wearing Course of Pav. near Abut. "B"	t = 12 mm	Heavy	Many	a	21
134	8	Railing	SER	S	Spall	Bottom Face of Railing @ DS	A = 0.096 m²	Slight	One	c	56
135	8	Railing	SER	S	Spall	Bottom Face of Railing @ DS	A = 0.095 m²	Slight	One	c	58
136	8	Railing and Post	SER	S	Spall	Face of Post and Railing @ DS	A = 0.04 m²	Slight	Two	c	22
137	8	Rail Post	SER	S	Spall	Face of Post @ Upstream	A = 0.09 m²	Slight	One	c	19
138	8	Rail Post	SER	S	Exposed Rebar	Face of Split Post @ Downstream	A = 0.03 m²	Slight	One	c	55
139	8	Rail Post	SER	S	Exposed Rebar	Face of Split Post @ Downstream	A = 0.05 m²	Slight	One	c	57
140	8	Curb	SER	S	Spall	Top pf Abut. "B" @ Exp. Joint	A = 0.03 m²	Slight	One	c	20
141	8	Abutment "B", End Diaphragm (Cross Beam)	CR	S	Crack	Face of Diaphragm near G-1 @ Bay 1	t = 0.127 mm	Slight	One	c	59
142	8	Abutment "B", End Diaphragm (Cross Beam)	CR	S	Vertical Crack	Face of Diaphragm near G-2 @ Bay 2	t = 0.203 mm	Slight	One	c	60

VISUAL INSPECTION REPORT (1/5)
BRIDGE INVENTORY

Reference No. Pa1.2
Inventory Date Dec. 13, 14, 19, 20, 2002
Inventory Office KEI - DCCD

Name of Bridge : Pa1.2 Delpan Bridge (Downstream)

Bridge Type	AASHTO & PC Gerber Box Girders (5-span)			Bridge Length	202.90 m		Span Length		26.65/46.00/57.60/46.00/26.65		
Name of Road	Bonifacio Drive		Location	Port Area, Manila		Chainage					
Approach Road	Road Width (m)						Type	Wall Type			
	Lane	No.	4	Width	17.32	(m)	Wall	Height	(4.80)	(m), Width	1.38 (0.46+0.92) (m)
	Sidewalk	Type	Concrete	Width	1.61/1.60	(m)	**Abutment** Footing	Length	19.28	(m), Width	(5.77) (m)
	Median	Type	-	Width		(m)	Foundation	Type	(PSC Pile)	Length	A1= (28.0) A2 = (15.5) (m)
	Pavement	Type	Concrete	Thickness		(cm)	Type	Wall Type			
	Traffic Volume				Both Direction/day		Coping	Height		(m), Width	(m)
Superstructure	Alignment	Skew	30°	Curve	None		**Pier** Column (Wall)	Height	(11.055)	(m), size	P1/P4 (1.8-2.30) P2/P3 (2.0-3.0) (m)
	Main Girder	Type	PC Gerber Box Girder/AASHTO T-IV				Footing	Length	(19.63)	(m), Width	P1/P4 (8.0) P2/P3 (10.0) (m)
		Height	3.67 m (at Pier)/1.640 m (at mid-span)/1.39 m				Foundation	Type	(PSC Pile & Bored Pile)	Length	P1/P2 (23.0) m P3 (20.0) m P4 (10.5) m
		Number	(1) PC Gerber Box Girder/(7) AASHTO T-IV				**Design** Specification		(AASHTO 1973 & 1977 Editions)		
		Space	2.75 for AASHTO T-IV		(m)		Live Load		(MS 18)		
	Cross Beam	Type	Concrete Diaphragm (AASHTO T-IV)				Seismic Coefficient		0.10 (DL + 1/2 LL)		
		No.	4				Design Date		(1982)		
	Stringer	Type	-				**Construction** Concrete		fc' (21 MPa, Structural Concrete)		
		No.	-				Reinforcing Bar		fy (Grade 40, 275 MPa)		
	Pavement	Type	AC	Thickness	5.0	(cm)	P.C. Material		fc' (35 MPa), f'su (1862 MPa/1750 MPa for PSC Piles)		
	Slab	Type	Concrete	Thickness	20/28	(cm)	Steel Material				
	Shoe	Type	Steel Bearing/ Elastomeric Pad	Reaction	387	(t)	Completion Date		((1988))		
	Expansion Joint	Type	Steel				**Remarks**		( ) Design Dimension		
	Handrail	Type	Concrete						(( )) Assumption Data		

Reference No. Pa2
Inventory Date Dec. 2, 3, 4, 10 & 11, 2002
Inventory Office KEI - DCCD

Name of Bridge : Pa2 Jones Bridge

Bridge Type	Steel Plate Girder			Bridge Length	114.41 m		Span Length		35.51/43.40/35.50		
Name of Road			Location			Chainage					
Approach Road	Road Width (m)		21.15/21.22				Type	Wall Type			
	Lane	No.	4	Width	7.60 to 7.75	(m)	Wall	Height	((5.80))	(m), Width	1.45 (m)
	Sidewalk	Type	Concrete	Width	2.35	(m)	**Abutment** Footing	Length	21.80	(m), Width	((5.50)) (m)
	Median	Type	Concrete Curb	Width	1.22 (ave.)	(m)	Foundation	Type	((Spread))	Length	21.80 (m)
	Pavement	Type	AC	Thickness		(cm)	Type	Wall Type			
	Traffic Volume				Both Direction/day		Coping	Height		(m), Width	(m)
Superstructure	Alignment	Skew	Normal	Curve	None		**Pier 1/2** Column(wall)	Height	(9.00)	(m), size	1.26 / 1.82 / 4.12 (m)
	Main Girder	Type	Steel Plate				Footing	Length	27.59	(m), Width	(8.70 TOP/10.20 BOT) (m)
		Height	1.835 (exterior); 1.320 (interior)				Foundation	Type	(Caisson)	Length	(31.80) (m)
		Number	8				**Design** Specification		Unknown ((AASHO))		
		Space	2.9		(m)		Live Load		((MS 18))		
	Cross Beam	Type	None				Seismic Coefficient		((No Specific Provision))		
		No.	None				Design Date		Unknown		
	Stringer	Type	None				**Construction** Concrete		fc' ((21 MPa)), SLAB / ((17 MPa)), Substructure		
		No.	None				Reinforcing Bar		fy ((275 MPa)), SLAB / ((228 MPa)), Substructure		
	Pavement	Type	AC	Thickness	5.00	(cm)	P.C. Material				
	Slab	Type	Reinf. Conc.	Thickness	20.00	(cm)	Steel Material		fy ((228 MPa))		
	Shoe	Type	Steel	Reaction	160	(t)	Completion Date		((1948))		
	Expansion Joint	Type	Steel				**Remarks**		( ) As Built Data		
	Handrail	Type	Concrete Precast						((( )) Assumption Data		

Reference No. Pa3
Inventory Date Dec. 10 - 13, 2002
Inventory Office KEI - DCCD

Name of Bridge : Pa3 McArthur Bridge

Bridge Type	Continuous Steel Plate Girder			Bridge Length	114.60 m.		Span Length		37.30/40.30/37.00		
Name of Road	Rizal St.			Location	Manila		Chainage				
Approach Road	Road Width (m)		17.60 m				Type	Wall Type			
	Lane	No.	4	Width	3.35	(m)	Wall	Height	((7.5))	(m), Width	1.75 (m)
	Sidewalk	Type	Concrete	Width	1.80	(m)	**Abutment** Footing	Length	((17.00))	(m), Width	((7.00)) (m)
	Median	Type	Concrete Curb	Width	0.60	(m)	Foundation	Type	((Timber Pile))	Length	((15.00 min.)) (m)
	Pavement	Type	AC	Thickness		(cm)	Type	Wall Type			
	Traffic Volume				Both Direction/day		Coping	Height	-	(m), Width	- (m)
Superstructure	Alignment	Skew	(90°) Normal	Curve	None		**Pier 1/2** Column	Height	3.35/2.26/((2.89))	(m), size	1.22/1.83/4.83 (m)
	Main Girder	Type	Steel Plate				Footing	Length	(25.00)	(m), Width	((8.00)) (m)
		Height	1.72 m.				Foundation	Type	((Timber Pile))	Length	((15.00 min.)) (m)
		Number	7				**Design** Specification		Unknown ((AASHO))		
		Space	2.50 m		(m)		Live Load		((MS 18))		
	Cross Beam	Type	None				Seismic Coefficient		((No Specific Provision))		
		No.	None				Design Date		Unknown		
	Stringer	Type	None				**Construction** Concrete		fc' ((21 MPa, Slab/17 MPa, Substructure))		
		No.	None				Reinforcing Bar		fy ((275 MPa, Slab/228 MPa, Substructure))		
	Pavement	Type	AC Overlay	Thickness	5.0	(cm)	P.C. Material				
	Slab	Type	RC Concrete	Thickness	25.0	(cm)	Steel Material		fy ((228 MPa, A33))		
	Shoe	Type	Steel	Reaction	146	(t)	Completion Date		((1948))		
	Expansion Joint	Type	Steel				**Remarks**		( ) As Built Data		
	Handrail	Type	Steel Pipe						(( )) Assumption Data		

VISUAL INSPECTION REPORT (1/5)
BRIDGE INVENTORY

Reference No.	Pa4
Inventory Date	Nov. 27, 28, Dec. 2-5, Dec. 12-14, 16, 18, 2002
Inventory Office	KEI - DCCD

Name of Bridge : Pa4 Quezon Bridge

Bridge Type	Single Steel Type Arch Bridge				Bridge Length	102.40 m		Span Length		102.40 m		
Name of Road				Location			Chainage					

Approach Road

Road Width (m)		20.60 m					
Lane	No.	4		Width	4.00	(m)	
Sidewalk	Type	Concrete		Width	1.80	(m)	
Median	Type	Curb Barrier		Width	1.00	(m)	
Pavement	Type	AC Overlay	Thickness			(cm)	
Traffic Volume					Both Direction/day		

Superstructure

Alignment	Skew	Normal	Curve	None			
Main Girder	Type	Steel Arch					
	Height	15.04 m					
	Number	3					
	Space	9				(m)	
Cross Beam	Type	I-Section					
	No.	17 pieces					
Stringer	Type	I-Section					
	No.	12 pieces					
Pavement	Type	AC Overlay	Thickness	2.50	(cm)		
Slab	Type	RC Concrete	Thickness	18.00	(cm)		
Shoe	Type	Steel	Reaction	760	(t)		
Expansion Joint	Type	Steel					
Handrail	Type	Steel Railings					

Abutment

	Type	Wall Type					
	Wall	Height	((9.00))	(m), Width	((3.50))	(m)	
	Footing	Length	((27.00))	(m), Width	((13.00))	(m)	
	Foundation	Type	((Timber Pile))	Length	((15.00))	(m)	

Pier

	Type	-					
	Coping	Height	-	(m), Width	-	(m)	
	Column	Height	-	(m), size	-	(m)	
	Footing	Length	-	(m), Width	-	(m)	
	Foundation	Type	-	Length	-		

Design

	Specification	((AASHO))
	Live Load	((MS18))
	Seismic Coefficient	((No Specific Provision))
	Design Date	Unknown

Construction

	Concrete	fc' ((21.0 MPa, slab/17.0 MPa, Substructure))
	Reinforcing Bar	fy (275 MPa, slab)/(228 MPa, Substructure))
	P.C. Material	
	Steel Material	fy ((228 MPa))
	Completion Date	((1946))

Remarks	( ) As-built Data
	(( )) Assumption Data

Reference No.	Pa5
Inventory Date	Dec. 10-12, 2002
Inventory Office	KEI - DCCD

Name of Bridge : Pa5 Nagtahan Bridge

Bridge Type	3-Span Continuous Steel Truss				Bridge Length	148.93 m		Span Length		45.60/57.73/45.60		
Name of Road	Nagtahan Street			Location	Sta. Mesa, Manila		Chainage					

Approach Road

Road Width (m)		24.62 / 29.94					
Lane	No.	6		Width	3.50	(m)	
Sidewalk	Type	Concrete		Width	1.00	(m)	
Median	Type	Concrete Curb		Width	0.62/0.94	(m)	
Pavement	Type	AC	Thickness			(cm)	
Traffic Volume					Both Direction/day		

Superstructure

Alignment	Skew	11°	Curve	None			
Main Girder	Type	Steel Truss					
	Height	4.17 at Pier/2.40 m at ₵					
	Number	10					
	Space	2.52				(m)	
Cross Beam	Type	I-Beam					
	No.	2 (Both Abutment)					
Stringer	Type	-					
	No.	-					
Pavement	Type	AC Overlay	Thickness	((5.0))	(cm)		
Slab	Type	RC Concrete	Thickness	((20.0))	(cm)		
Shoe	Type	Steel Bearing	Reaction	190	(t)		
Expansion Joint	Type	Steel					
Handrail	Type	Steel					

Abutment Pier 1/4

	Type	Wall Type					
	Wall	Height	((15.18))	(m), Width	1.20	(m)	
	Footing	Length	((26.0))	(m), Width	((5.0))	(m)	
	Foundation	Type	((Spread))	Length	((26.0))	(m)	

Pier 2/3

	Type	Wall Type					
	Coping	Height	1.31	(m), Width	2.36	(m)	
	Column (Wall)	Height	2.475/((9.49))	(m), size	1.20/2.10	(m)	
	Footing	Length	((30.00))	(m), Width	((8.00))	(m)	
	Foundation	Type	((Timber Pile))	Length	((10.00))	(m)	

Design

	Specification	Unknown ((AASHO))
	Live Load	((MS18))
	Seismic Coefficient	0.06 DL
	Design Date	Unknown

Construction

	Concrete	fc' ((21 MPa)), Slab/((17 MPa)), Substructure
	Reinforcing Bar	fy ((275 MPa)), Slab/((228 MPa)), Substructure
	P.C. Material	
	Steel Material	fy ((228 MPa))
	Completion Date	((1966))

Remarks	( ) As Built Data
	(( )) Assumption Data

Reference No.	Pa6
Inventory Date	Dec. 6 - 9, 2002
Inventory Office	KEI - DCCD

Name of Bridge : Pa6 Pandacan Bridge

Bridge Type	PC AASHTO Girder Bridge (5-span)				Bridge Length	147.40 m		Span Length		23.80/25.00/46.00/25.10/27.50		
Name of Road				Location	Pandacan, Manila		Chainage					

Approach Road

Road Width (m)		16.70 m					
Lane	No.	4		Width	3.25	(m)	
Sidewalk	Type			Width	1.20	(m)	
Median	Type	Concrete Curb		Width	1.10	(m)	
Pavement	Type	AC	Thickness			(cm)	
Traffic Volume					Both Direction/day		

Superstructure

Alignment	Skew	Normal	Curve	None			
Main Girder	Type	AASHTO Girder					
	Height	2.30 m, Span 3/1.35 m, other Span					
	Number	6					
	Space	2.60				(m)	
Cross Beam	Type	Concrete Diaphragm					
	No.	12 Intermediate/6 End Diaphragm					
Stringer	Type	-					
	No.	-					
Pavement	Type	AC	Thickness	5.0	(cm)		
Slab	Type	Reinf. Conc.	Thickness	18.0	(cm)		
Shoe	Type	Elastomeric Bearing Pad	Reaction	200	(t)		
Expansion Joint	Type	Steel					
Handrail	Type	Concrete					

Abutment

	Type	Column Bent with Diaphragm Wall					
	Wall (Column)	Height	((5.5/7.5))	(m), Width	1.60	(m)	
	Footing	Length	((17.50))	(m), Width	((7.00/8.00))	(m)	
	Foundation	Type	((PSC Pile/ Spread))	Length	((10.0/17.50))	(m)	

Pier

	Type	Column Bent					
	Coping	Height	1.71	(m), Width	2.60	(m)	
	Column	Height	((15.00))	(m), size	1.60	(m)	
	Footing	Length	-	(m), Width	-	(m)	
	Foundation	Type	Bored Pile	Length	((15.00))	(m)	

Design

	Specification	((AASHTO))
	Live Load	((MS 18))
	Seismic Coefficient	0.10 (DL + 1/2 LL)
	Design Date	Unknown

Construction

	Concrete	fc' ((21 MPa, Slab & Substructure/28 MPa Piles))
	Reinforcing Bar	fy ((414 Mpa, Slab & Substructure))
	P.C. Material	fc' ((35 MPa)), f'su (1862 MPa)
	Steel Material	
	Completion Date	1997

Remarks	( ) As Built Data
	(( )) Assumption Data

VISUAL INSPECTION REPORT (1/5)
BRIDGE INVENTORY

Reference No.   Pa7
Inventory Date   Dec. 4 - 5, 2002
Inventory Office   KEI - DCCD

Name of Bridge : Pa7 Lambingan Bridge

Bridge Type	PC Gerber I Girder Bridge (3-Span)			Bridge Length		98.10 m				Span Length		18.50/61.10/18.50		
Name of Road	New Panaderos St.		Location	Manila			Chainage							

Approach Road / Superstructure

Road Width (m)		23.75 m				Abutment	Type	Wall Type		
Lane	No.	4 lanes	Width	5.00	(m)		Wall	Height	((8.20))	(m), Width 1.27 (m)
Sidewalk	Type	Concrete	Width	1.30	(m)		Footing	Length	((24.0))	(m), Width ((6.0)) (m)
Median	Type	Concrete Curb	Width	1.00	(m)		Foundation	Type	((Steel Pile))	Length ((15.00)) (m)
Pavement	Type	AC·	Thickness	·	(cm)	Pier 1/2	Type	Wall Type		
Traffic Volume			Both Direction/day				Coping	Height -	(m), Width - (m)
Alignment	Skew	Normal	Curve '	None			Column (Wall)	Height	4.90/((6.30))	(m), size 1.40/4.60 (m)
Main Girder	Type	PC Gerber I Girder					Footing	Length	((28.0))	(m), Width ((8.0)) (m)
	Height	1.829 m					Foundation	Type	((Steel Pile))	Length ((15.0)) (m)
	Number	12				Design	Specification	((AASHTO))		
	Space	2.00		(m)			Live Load	((MS 18))		
Cross Beam	Type	Concrete Diaphragm					Seismic Coefficient	((EQ=0.10 (DL + 0.5LL) min.		
	No.	8 Interior, 1 each Abut. & Pier					Design Date	Unknown		
Stringer	Type	-				Construction	Concrete	fc' ((21 MPa, Structural Concrete))		
	No.	-					Reinforcing Bar	fy ((275 MPa Structural Concrete))		
Pavement	Type	AC Overlay	Thickness	4.0	(cm)		P.C. Material	fc' ((35 MPa)), f'su ((1862 MPa)		
Slab	Type	Concrete	Thickness	20.0	(cm)		Steel Material	fy ((248 MPa, A36))		
Shoe	Type	Elastomeric Bearing Pad	Reaction	300	(t)		Completion Date	1979		
Expansion Joint	Type	-					Remarks	( ) As Built Data		
Handrail	Type	Steel						(( )) Assumption Data		

Reference No.   Pa8
Inventory Date   Nov. 26, 28, Dec. 2, 3, 2002
Inventory Office   KEI - DCCD

Name of Bridge : Pa8 Makati-Mandaluyong Bridge

Bridge Type	PC Gerber I Girder Bridge (3-Span)			Bridge Length		110.00 m				Span Length		30 / 50 / 30		
Name of Road	Burgos St. Ext'n.		Location	Makati City			Chainage							

Road Width (m)		16.45 m / 23.71 m				Abutment Pier No. 1 & 4	Type	Column Bent with Diaphragm Wall		
Lane	No.	4	Width	3.85 to 5.00	(m)		Wall, Column	Height	(4.50)	(m), Width (1.8 x 2.0) (m)
Sidewalk	Type	Concrete	Width	0.25	(m)		Footing	Length	(17.0)	(m), Width (6.0/5.8) (m)
Median	Type	Concrete Curb	Width	1.00	(m)		Foundation	Type	(Spread/Pile)	Length (17.0/28.6) (m)
Pavement	Type	AC	Thickness		(cm)	Pier No. 2 & 3	Type	Column Bent		
Traffic Volume			Both Direction/day				Coping	Height	(2.00)	(m), Width (2.00) (m)
Alignment	Skew	Normal	Curve	None			Column	Height	(27.0)	(m), size (2.0 Ø) (m)
Main Girder	Type	PC Box Girder / AASHTO Type V					Footing	Length	-	(m), Width - (m)
	Height	1.92 m / 1.60 m					Foundation	Type	(Bored Pile)	Length (27.0) (m)
	Number	1 / 9				Design	Specification	(AASHTO)		
	Space	9 @ 2.06, AASHTO Girder		(m)			Live Load	(MS 18)		
Cross Beam	Type	Concrete Diaphragm					Seismic Coefficient	((EQ = 0.10 (DL + 0.5 LL) min.		
	No.	6					Design Date	Unknown		
Stringer	Type	None				Construction	Concrete	fc' (21 MPa, Structural Concrete)		
	No.	None					Reinforcing Bar	fy (420 MPa)		
Pavement	Type	None	Thickness	None	(cm)		P.C. Material	fc' ((35 MPa), f'su ((1862 MPa)		
Slab	Type	Reinf. Conc	Thickness	22.0	(cm)		Steel Material			
Shoe	Type	Bearing Shoe	Reaction	225	(t)		Completion Date	1986		
Expansion Joint	Type	Steel Finger Type					Remarks	( ) As Built Data		
Handrail	Type	Steel						(( )) Assumption Data		

Reference No.   Pa9.1
Inventory Date   December 13, 2002
Inventory Office   KEI - PROCONSULT

Name of Bridge : 10.1 Guadalupe Bridge (Central)

Bridge Type	3-Span Continuous Truss Bridge			Bridge Length		144.44 m		Span Length			35.70 / 42.80 / 35.94		
Name of Road	EDSA		Location	Makati City & Mandaluyong City		Chainage							

Road Width (m)		32.70 / 36.33				Abutment	Type	Wall Type		
Lane	No.	5	Width		(m)		Wall	Height	(3.91) (3.927) (m), Width	(1.927), (2.05 ave.) (m)
Sidewalk	Type	Concrete	Width	1.28 / 3.50, 3.20	(m)		Footing	Length	26.60 (m), Width	(5.037), (4.56) (m)
Median	Type	Concrete	Width	- / 6.95	(m)		Foundation	Type	(Spread, Timber Pile)	Length ((10)) (m)
Pavement	Type	Concrete	Thickness	((23))	(cm)	Pier	Type	Wall Type		
Traffic Volume			Both Direction/day				Coping	Height	((1.25))	(m), Width (1.134) (m)
Alignment	Skew	90°	Curve				Column	Height	(9.197)	(m), size (1.517) ave. (m)
Main Girder	Type	Steel Truss					Footing	Length	((29.00))	(m), Width (6.30) (m)
	Height	2.19 m					Foundation	Type	(Spread, Timber Pile)	Length (10) (m)
	Number	10 per span				Design	Specification	(AASHO 1944)		
	Space	2.637		(m)			Live Load	(H 20 - 44)		
Cross Beam	Type	Steel					Seismic Coefficient	0.06 DL		
	No.	15					Design Date	(1947)		
Stringer	Type	-				Construction	Concrete	f'c (21 MPa)		
	No.	-					Reinforcing Bar	fy (275 Mpa, Grade 40)		
Pavement	Type	Asphalt	Thickness	((5))	(cm)		P.C. Material	f'c -		
Slab	Type	Concrete	Thickness	((18))	(cm)		Steel Material	fy (248MPa)		
Shoe	Type	Steel	Reaction	108.65 (max.)	(t)		Construction Date	((1962))		
Expansion Joint	Type	Steel					Remarks	( ) as-built data		
Handrail	Type							(( )) assumption data		

VISUAL INSPECTION REPORT (1/5)
BRIDGE INVENTORY

Reference No. Pa9.2
Inventory Date December 13, 2002
Inventory Office KEI - PROCONSULT

Name of Bridge : 10.2 Guadalupe Bridge (Both Side, Upstream)

Bridge Type	PC Gerber Girder Bridge (3-Span)			Bridge Length	144.44 m			Span Length		35.70 / 42.80 / 35.94		
Name of Road	EDSA		Location	Makati City & Mandaluyong City	Chainage							

							Type		Wall Type			
Approach Road	Road Width (m)	16.50 / 17.63				**Abutment**	Wall	Height	(4.75)/(4.60) (m), Width	(1.22)	(m)	
	Lane	No.	5	Width	(m)		Footing	Length	9.59 (m), Width	(6.00) / (5.00)	(m)	
	Sidewalk	Type	Concrete	Width	- / 3.20 (m)		Foundation	Type	(PSC Pile) Length	(20.20)	(m)	
	Median	Type	Concrete	Width	- / 6.95 (m)	**Pier**	Type		Wall Type			
	Pavement	Type	Concrete	Thickness	((23)) (cm)		Coping	Height	(1.20) (m), Width	1.15	(m)	
	Traffic Volume			Both Direction/day			Column	Height	10.80 (m), size	(1.49) ave.	(m)	
Superstructure	Alignment	Skew	90°	Curve			Footing	Length	(11.247) (m), Width	(7.00) max.	(m)	
	Main Girder	Type	Prestressed Concrete Girder				Foundation	Type	(PSC Pile) Length	(16) / (21)	(m)	
		Height	1.68 m			**Design**	Specification	(AASHTO 1973 / DPWH 1972)				
		Number	4 per span				Live Load	(HS 20 - 44)				
		Space	2.40		(m)		Seismic Coefficient	0.10(DL+1/2 LL)				
	Cross Beam	Type	Concrete				Design Date	(1979)				
		No.	6 Intermediate / Span			**Construction**	Concrete	f'c (21 MPa)				
	Stringer	Type	-				Reinforcing Bar	fy (275 Mpa, Grade 40)				
		No.	-				P.C. Material	f'c (35 Mpa), f'su (1862 Mpa, Grade 270)				
	Pavement	Type	Asphalt	Thickness	((5)) (cm)		Steel Material	fy (248MPa)				
	Slab	Type	Concrete	Thickness	(20) (cm)		Construction Date	((1979))				
	Shoe	Type	Steel & Elastomeric Reaction 150 (max.) (t)				Remarks	( ) as-built data				
	Expansion Joint	Type	Steel					(( )) assumption data				
	Handrail	Type	Concrete									

Reference No. Pa9.2
Inventory Date December 13, 2002
Inventory Office KEI - PROCONSULT

Name of Bridge : 10.2 Guadalupe Bridge (Both Side, Downstream)

Bridge Type	PC Gerber Girder Bridge (3-Span)			Bridge Length	144.44 m			Span Length		35.70 / 42.80 / 35.94		
Name of Road	EDSA		Location	Makati City & Mandaluyong City	Chainage							

							Type		Wall Type			
Approach Road	Road Width (m)	16.20 / 18.70				**Abutment**	Wall	Height	(4.75)/(4.60) (m), Width	(1.22)	(m)	
	Lane	No.	5	Width	(m)		Footing	Length	8.90 (m), Width	(6.00) / (5.00)	(m)	
	Sidewalk	Type	Concrete	Width	1.28 / 3.50 (m)		Foundation	Type	(PSC Pile) Length	(20.20)	(m)	
	Median	Type	Concrete	Width	- / 6.95 (m)	**Pier**	Type		Wall Type			
	Pavement	Type	Concrete	Thickness	((23)) (cm)		Coping	Height	(1.20) (m), Width	1.15	(m)	
	Traffic Volume			Both Direction/day			Column	Height	10.80 (m), size	(1.49) ave.	(m)	
Superstructure	Alignment	Skew	90°	Curve			Footing	Length	(11.247) (m), Width	(7.00) max.	(m)	
	Main Girder	Type	Prestressed Concrete Girder				Foundation	Type	(PSC Pile) Length	(16) / (21)	(m)	
		Height	1.68 m			**Design**	Specification	(AASHTO 1973 / DPWH 1972)				
		Number	4 per span				Live Load	(HS 20 - 44)				
		Space	2.40		(m)		Seismic Coefficient	0.10(DL+1/2 LL)				
	Cross Beam	Type	Concrete				Design Date	(1979)				
		No.	6 Intermediate / Span			**Construction**	Concrete	f'c (21 MPa)				
	Stringer	Type	-				Reinforcing Bar	fy (275 Mpa, Grade 40)				
		No.	-				P.C. Material	f'c (35 Mpa), f'su (1862 Mpa, Grade 270)				
	Pavement	Type	Asphalt	Thickness	((5)) (cm)		Steel Material	fy (248MPa)				
	Slab	Type	Concrete	Thickness	(20) (cm)		Construction Date	((1979))				
	Shoe	Type	Steel & Elastomeric Reaction 150 (max.) (t)				Remarks	( ) as-built data				
	Expansion Joint	Type	Steel					(( )) assumption data				
	Handrail	Type	Concrete									

Reference No. Pa10
Inventory Date Nov. 27 - Dec. 12, 2002
Inventory Office KEI - PROCONSULT

Name of Bridge : 11.0 C-5 BRIDGE

Bridge Type	PCI Girder Bridge (3-Span)			Bridge Length	272.96 m			Span Length		24.85 / 24.95 / 25.12 / 25.00 / 24.85 / 45.88 / 22.21 / 26.95 / 26.70 / 26.45		
Name of Road	C-5		Location	Pasig City	Chainage							

							Type		Wall Type			
Approach Road	Road Width (m)	22.55 / 14.50				**Abutment**	Wall	Height	A (4.157), B (6.55) (m), Width	A (1.10), B (1.20)	(m)	
	Lane	No.	3	Width	3 - 3.75 (m)		Footing	Length	(28.70) (m), Width	A (5.00), B(6.75)	(m)	
	Sidewalk	Type	Concrete	Width	5.00,3.00 1.20, 2.80 (m)		Foundation	Type	(Spread, Bored Pile) Length	(28.70) / (28.70)	(m)	
	Median	Type	Concrete	Width	3.00 / 1.24 (m)	**Pier**	Type		(Pier Pile Bent)			
	Pavement	Type	Asphalt	Thickness	((5)) (cm)		Coping	Height	2.04 / 2.60 (m), Width	1.72 / 2.60	(m)	
	Traffic Volume			Both Direction/day			Column	Height	(5.26 / 6.482) (m), size	1.50 / 2.50	(m)	
Superstructure	Alignment	Skew	90°	Curve			Footing	Length	None (m), Width	None	(m)	
	Main Girder	Type	AASHTO GIRDER TYPE IV & VI (Modified)				Foundation	Type	(Bored Pile) Length	(12.74 - 41.018)	(m)	
		Height	1.372 m / 2.10 m			**Design**	Specification	(AASHTO 1992)				
		Number	12 per span				Live Load	(HS 20 - 44)				
		Space	2.30		(m)		Seismic Coefficient	0.10(DL+1/2 LL)				
	Cross Beam	Type	Concrete				Design Date	(1996)				
		No.	209			**Construction**	Concrete	f'c (21 MPa)				
	Stringer	Type	-				Reinforcing Bar	fy (275 Mpa, Grade 40)				
		No.	-				P.C. Material	f'c (35 Mpa), f'su (1862 Mpa, Grade 270)				
	Pavement	Type	Asphalt	Thickness	((5)) (cm)		Steel Material	fy ((248 Mpa))				
	Slab	Type	Concrete	Thickness	(25) (cm)		Construction Date	(1998)				
	Shoe	Type	Neoprene Reaction 114.41 (max.) (t)				Remarks	( ) as-built data				
	Expansion Joint	Type	Steel					(( )) assumption data				
	Handrail	Type	Concrete									

VISUAL INSPECTION REPORT (1/5)
BRIDGE INVENTORY

Reference No. Pa11
Inventory Date November 27, 2002
Inventory Office KEI - PROCONSULT

Name of Bridge : 12.0 Bambang Bridge

Bridge Type	PCI Girder Bridge (3-Span)			Bridge Length	163.32 m			Span Length	12.00 / 11.65 / 11.70 / 25.90 / 40.19 /
Name of Road	A. Luna		Location	Pasig City		Chainage			25.93 / 12.15 / 11.95 / 11.85

<table>
<tr><td rowspan="6">Approach Road</td><td colspan="2">Road Width (m)</td><td colspan="3">10.05 / 9.75</td><td rowspan="3">Abutment</td><td colspan="2">Type</td><td colspan="3">Wall Type</td></tr>
<tr><td>Lane</td><td>No.</td><td>3</td><td>Width</td><td>(m)</td><td>Wall</td><td>Height</td><td>1.00</td><td>(m), Width</td><td>0.80</td><td>(m)</td></tr>
<tr><td>Sidewalk</td><td>Type</td><td>Concrete</td><td>Width</td><td>1.50 / 3.40 (m)</td><td>Footing</td><td>Length</td><td>None</td><td>(m), Width</td><td>None</td><td>(m)</td></tr>
<tr><td>Median</td><td>Type</td><td>-</td><td>Width</td><td>- (m)</td><td>Foundation</td><td>Type</td><td>(PSC Pile)</td><td>Length</td><td>(25)</td><td>(m)</td></tr>
<tr><td>Pavement</td><td>Type</td><td>Asphalt</td><td>Thickness</td><td>((5)) (cm)</td><td rowspan="4">Pier</td><td colspan="2">Type</td><td colspan="3">Column Type</td></tr>
<tr><td>Traffic Volume</td><td colspan="4">Both Direction/day</td><td>Coping</td><td>Height</td><td>1.00 / 1.95</td><td>(m), Width</td><td>1.00 / 1.70 (m)</td></tr>
<tr><td rowspan="14">Superstructure</td><td>Alignment</td><td>Skew</td><td>90°</td><td>Curve</td><td></td><td>Column</td><td>Height</td><td>((4.40)) / 2.98</td><td>(m), size</td><td>1.00 / 1.60 (m)</td></tr>
<tr><td rowspan="4">Main Girder</td><td>Type</td><td colspan="3">Channel Beam / PCI Girder Type IV & VI</td><td>Footing</td><td>Length</td><td>((7.50)) / 9.50</td><td>(m), Width</td><td>((2.50)) / 5.10 (m)</td></tr>
<tr><td>Height</td><td colspan="3">0.50 m / 1.37 m / 1.82 m</td><td>Foundation</td><td>Type</td><td>(PSC Pile)</td><td>Length</td><td>(20) / (22) (m)</td></tr>
<tr><td>Number</td><td colspan="3">48 / 8 / 4</td><td rowspan="4">Design</td><td colspan="2">Specification</td><td colspan="3">(AASHTO 1988)</td></tr>
<tr><td>Space</td><td colspan="3">1.31 / 2.45 / 2.45 (m)</td><td colspan="2">Live Load</td><td colspan="3">(MS - 18)</td></tr>
<tr><td rowspan="2">Cross Beam</td><td>Type</td><td colspan="3">Concrete</td><td colspan="2">Seismic Coefficient</td><td colspan="3">0.10(DL+1/2 LL)</td></tr>
<tr><td>No.</td><td colspan="3">7</td><td colspan="2">Design Date</td><td colspan="3">(1991)</td></tr>
<tr><td rowspan="2">Stringer</td><td>Type</td><td colspan="3">-</td><td rowspan="4">Construction</td><td colspan="2">Concrete</td><td>f'c</td><td colspan="2">(21 MPa)</td></tr>
<tr><td>No.</td><td colspan="3">-</td><td colspan="2">Reinforcing Bar</td><td>fy</td><td colspan="2">(275 Mpa, Grade 40)</td></tr>
<tr><td>Pavement</td><td>Type</td><td>-</td><td>Thickness</td><td>- (cm)</td><td colspan="2">P.C. Material</td><td>f'c</td><td>(42 Mpa),</td><td>f'su (1862 Mpa, Grade 270)</td></tr>
<tr><td>Slab</td><td>Type</td><td>Concrete</td><td>Thickness</td><td>(27) (cm)</td><td colspan="2">Steel Material</td><td>fy</td><td colspan="2">((248 MPa))</td></tr>
<tr><td>Shoe</td><td>Type</td><td>Neoprene</td><td>Reaction</td><td>100 (max.) (t)</td><td rowspan="3" colspan="2">Remarks</td><td colspan="3">Construction Date (1992)</td></tr>
<tr><td>Expansion Joint</td><td>Type</td><td colspan="3">Steel</td><td colspan="3">( ) as-built data</td></tr>
<tr><td>Handrail</td><td>Type</td><td colspan="3">Concrete</td><td colspan="3">(( )) assumption data</td></tr>
</table>

Reference No. Ma1.1
Inventory Date November 26, 2002
Inventory Office KEI - PROCONSULT

Name of Bridge : 13.1 Vargas Bridge (Upstream)

Bridge Type	PC Gerber Girder Bridge (4-Span)			Bridge Length	122.44 m			Span Length	19.30 / 30.50 / 50.60 / 22.04
Name of Road	Pasig Boulevard Extension		Location	Bagong Ilog, Pasig City		Chainage			

<table>
<tr><td rowspan="6">Approach Road</td><td colspan="2">Road Width (m)</td><td colspan="3">7.35 / 8.58</td><td rowspan="3">Abutment</td><td colspan="2">Type</td><td colspan="3">Wall Type</td></tr>
<tr><td>Lane</td><td>No.</td><td>2</td><td>Width</td><td>(m)</td><td>Wall</td><td>Height</td><td>(5.466) / (5.698)</td><td>(m), Width</td><td>(1.25) ave.</td><td>(m)</td></tr>
<tr><td>Sidewalk</td><td>Type</td><td>Concrete</td><td>Width</td><td>2.66 / 0.42 (m)</td><td>Footing</td><td>Length</td><td>(10.00)</td><td>(m), Width</td><td>(6.00)</td><td>(m)</td></tr>
<tr><td>Median</td><td>Type</td><td>-</td><td>Width</td><td>- (m)</td><td>Foundation</td><td>Type</td><td>(Steel Pipe Pile)</td><td>Length</td><td>(22)</td><td>(m)</td></tr>
<tr><td>Pavement</td><td>Type</td><td>Asphalt</td><td>Thickness</td><td>((5)) (cm)</td><td rowspan="4">Pier</td><td colspan="2">Type</td><td colspan="3">Column Type</td></tr>
<tr><td>Traffic Volume</td><td colspan="4">Both Direction/day</td><td>Coping</td><td>Height</td><td>(1.20)</td><td>(m), Width</td><td>1.60 (m)</td></tr>
<tr><td rowspan="14">Superstructure</td><td>Alignment</td><td>Skew</td><td>90°</td><td>Curve</td><td></td><td>Column</td><td>Height</td><td>4.30</td><td>(m), size</td><td>1.70 ave. (m)</td></tr>
<tr><td rowspan="4">Main Girder</td><td>Type</td><td colspan="3">AASHTO Girder Type V & VI</td><td>Footing</td><td>Length</td><td>((13.41)</td><td>(m), Width</td><td>5.60 (m)</td></tr>
<tr><td>Height</td><td colspan="3">1.60 m / 1.86 m</td><td>Foundation</td><td>Type</td><td>(Steel Pipe Pile)</td><td>Length</td><td>(22) (m)</td></tr>
<tr><td>Number</td><td colspan="3">4 per span</td><td rowspan="4">Design</td><td colspan="2">Specification</td><td colspan="3">(AASHTO 1977)</td></tr>
<tr><td>Space</td><td colspan="3">2.17 (m)</td><td colspan="2">Live Load</td><td colspan="3">(MS - 18)</td></tr>
<tr><td rowspan="2">Cross Beam</td><td>Type</td><td colspan="3">Concrete</td><td colspan="2">Seismic Coefficient</td><td colspan="3">0.10(DL+1/2 LL)</td></tr>
<tr><td>No.</td><td colspan="3">12</td><td colspan="2">Design Date</td><td colspan="3">(1991)</td></tr>
<tr><td rowspan="2">Stringer</td><td>Type</td><td colspan="3">-</td><td rowspan="4">Construction</td><td colspan="2">Concrete</td><td>f'c</td><td colspan="2">(20.68 MPa)</td></tr>
<tr><td>No.</td><td colspan="3">-</td><td colspan="2">Reinforcing Bar</td><td>fy</td><td colspan="2">(275 Mpa, Grade 40)</td></tr>
<tr><td>Pavement</td><td>Type</td><td>-</td><td>Thickness</td><td>- (cm)</td><td colspan="2">P.C. Material</td><td>f'c</td><td>(39 Mpa),</td><td>f'su (1862 Mpa, Grade 270)</td></tr>
<tr><td>Slab</td><td>Type</td><td>Concrete</td><td>Thickness</td><td>((20)) (cm)</td><td colspan="2">Steel Material</td><td>fy</td><td colspan="2">(248 MPa)</td></tr>
<tr><td>Shoe</td><td>Type</td><td>Neoprene</td><td>Reaction</td><td>273.11 (max.) (t)</td><td rowspan="3" colspan="2">Remarks</td><td colspan="3">Construction Date ((1992))</td></tr>
<tr><td>Expansion Joint</td><td>Type</td><td colspan="3">Steel</td><td colspan="3" rowspan="2">( ) as-built data. (( )) assumption data. Inspection of Span 4 was not possible due to presence of squatters</td></tr>
<tr><td>Handrail</td><td>Type</td><td colspan="3">Concrete</td></tr>
</table>

Reference No. Ma1.2
Inventory Date November 26, 2002
Inventory Office KEI - PROCONSULT

Name of Bridge : 13.2 Vargas Bridge (Downstream)

Bridge Type	Steel Plate Girder Bridge (4-Span)			Bridge Length	142.80 m			Span Length	30.62 / 30.83 / 50.70 / 30.65
Name of Road	Pasig Boulevard Extension		Location	Bagong Ilog, Pasig City		Chainage			

<table>
<tr><td rowspan="6">Approach Road</td><td colspan="2">Road Width (m)</td><td colspan="3">10.93 / 8.22</td><td rowspan="3">Abutment</td><td colspan="2">Type</td><td colspan="3">Wall Type</td></tr>
<tr><td>Lane</td><td>No.</td><td>2</td><td>Width</td><td>(m)</td><td>Wall</td><td>Height</td><td>(6.50)</td><td>(m), Width</td><td>(1.40) ave.</td><td>(m)</td></tr>
<tr><td>Sidewalk</td><td>Type</td><td>Concrete</td><td>Width</td><td>1.21 / 0.77 (m)</td><td>Footing</td><td>Length</td><td>(10.00)</td><td>(m), Width</td><td>(5.50)</td><td>(m)</td></tr>
<tr><td>Median</td><td>Type</td><td>-</td><td>Width</td><td>- (m)</td><td>Foundation</td><td>Type</td><td>((PSC Pile))</td><td>Length</td><td>((23.50))</td><td>(m)</td></tr>
<tr><td>Pavement</td><td>Type</td><td>Asphalt</td><td>Thickness</td><td>((5)) (cm)</td><td rowspan="4">Pier</td><td colspan="2">Type</td><td colspan="3">Column Type</td></tr>
<tr><td>Traffic Volume</td><td colspan="4">Both Direction/day</td><td>Coping</td><td>Height</td><td>1.20</td><td>(m), Width</td><td>1.67 (m)</td></tr>
<tr><td rowspan="14">Superstructure</td><td>Alignment</td><td>Skew</td><td>90°</td><td>Curve</td><td></td><td>Column</td><td>Height</td><td>(9.00)</td><td>(m), size</td><td>(1.42) ave. (m)</td></tr>
<tr><td rowspan="4">Main Girder</td><td>Type</td><td colspan="3">Steel Plate Girder</td><td>Footing</td><td>Length</td><td>(6.80)</td><td>(m), Width</td><td>(4.00) / (5.20) (m)</td></tr>
<tr><td>Height</td><td colspan="3">2.30 m</td><td>Foundation</td><td>Type</td><td>((PSC Pile))</td><td>Length</td><td>((20.00 / 18.00)) (m)</td></tr>
<tr><td>Number</td><td colspan="3">3 per span</td><td rowspan="4">Design</td><td colspan="2">Specification</td><td colspan="3">(AASHTO 1965)</td></tr>
<tr><td>Space</td><td colspan="3">3.23 (m)</td><td colspan="2">Live Load</td><td colspan="3">(HS 20 - 44)</td></tr>
<tr><td rowspan="2">Cross Beam</td><td>Type</td><td colspan="3">Steel</td><td colspan="2">Seismic Coefficient</td><td colspan="3">0.10(DL+1/2 LL)</td></tr>
<tr><td>No.</td><td colspan="3">((70))</td><td colspan="2">Design Date</td><td colspan="3">Unknown</td></tr>
<tr><td rowspan="2">Stringer</td><td>Type</td><td colspan="3">-</td><td rowspan="4">Construction</td><td colspan="2">Concrete</td><td>f'c</td><td colspan="2">((21 MPa))</td></tr>
<tr><td>No.</td><td colspan="3">-</td><td colspan="2">Reinforcing Bar</td><td>fy</td><td colspan="2">((275 Mpa, Grade 40))</td></tr>
<tr><td>Pavement</td><td>Type</td><td>-</td><td>Thickness</td><td>- (cm)</td><td colspan="2">P.C. Material</td><td>f'c</td><td colspan="2">-</td></tr>
<tr><td>Slab</td><td>Type</td><td>Concrete</td><td>Thickness</td><td>20 (cm)</td><td colspan="2">Steel Material</td><td>fy</td><td colspan="2">((345 MPa))</td></tr>
<tr><td>Shoe</td><td>Type</td><td>Steel</td><td>Reaction</td><td>103.65 (max.) (t)</td><td rowspan="3" colspan="2">Remarks</td><td colspan="3">Construction Date ((1973))</td></tr>
<tr><td>Expansion Joint</td><td>Type</td><td colspan="3">Steel</td><td colspan="3" rowspan="2">( ) as-built data. (( )) assumption data. Inspection of Span 1 was not possible due to presence of squatters</td></tr>
<tr><td>Handrail</td><td>Type</td><td colspan="3">Concrete</td></tr>
</table>

VISUAL INSPECTION REPORT (1/5)
BRIDGE INVENTORY

Reference No.	Ma2
Inventory Date	December 12 - 16, 2002
Inventory Office	KEI - PROCONSULT

Name of Bridge : _____14.0 Rosario Bridge_____

Bridge Type	PCI Girder Bridge (6-Span)			Bridge Length	175.35 m			Span Length	25.50 / 31.20 / 31.19 / 30.98 / 31.07 / 25.41		
Name of Road	Ortigas Ave. Extension		Location	Brgy. Rosario, Pasig City		Chainage					

Approach Road

Road Width (m)		16.15, 10.85, 14.40			
Lane	No.	4,2,2	Width	2.20, 5.42, 7.20	(m)
Sidewalk	Type	Concrete	Width	1.80, 0.97, 2.20	(m)
Median	Type	-	Width	-	(m)
Pavement	Type	Asphalt	Thickness	((5))	(cm)
Traffic Volume				Both Direction/day	

Superstructure

Alignment	Skew	90°	Curve		
Main Girder	Type	AASHTO GIRDER TYPE IV & IV (Modified)			
	Height	1.40 m / 1.87 m			
	Number	10 per span			
	Space	1.98 m (min.) / 2.24 m (max.)			(m)
Cross Beam	Type	Concrete			
	No.	216			
Stringer	Type	-			
	No.	-			
Pavement	Type	Asphalt	Thickness	((5))	(cm)
Slab	Type	Concrete	Thickness	((18))	(cm)
Shoe	Type	Steel	Reaction	54.52 (max.)	(t)
Expansion Joint	Type	Steel			
Handrail	Type	Flex Beam Type			

Abutment

	Type	Column Type			
	Wall	Height	(3.127)	(m), Width	(1.60)	(m)
	Footing	Length	21.76	(m), Width	(4.00)	(m)
	Foundation	Type	(Timber Pile, PSC Pile, Steel Tubular Pile)	Length	((11))	(m)

Pier

	Type	Wall Type			
	Coping	Height	1.55 / 1.33	(m), Width	2.30	(m)
	Column	Height	(4.77) / 4.22	(m), size	1.50	(m)
	Footing	Length	24.80	(m), Width	(3.90),(3.30) / (4,40),4.00	(m)
	Foundation	Type	((Timber Pile, PSC Pile, Steel Tubular Pile))	Length	((11)) / ((12))	(m)

Design

Specification	(AASHO 1957 / BPR 1954)	
Live Load	(HS 15 - 44)	
Seismic Coefficient	0.06 DL / 0.10(DL+1/2 LL)	
Design Date	(1965)	

Construction

Concrete	f'c	3,000 psi (20.68 MPa)
Reinforcing Bar	fy	12,000 psi (82.73 MPa)
P.C. Material	f'c	5,100 psi ((35 MPa)), f'su 18,000 psi (124.10 MPa)
Steel Material	fy	36,000 psi (248 MPa)
Construction Date	((1952 / 1978))	

Remarks: ( ) as-built data, (( )) assumption data, Inspection of Span 4 was not possible due to presence of squatters

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Reference No.	Ma3
Inventory Date	December 13, 2002
Inventory Office	KEI - PROCONSULT

Name of Bridge : _____15.0 Marcos Bridge_____

Bridge Type	PCI Girder Bridge (11-Span)			Bridge Length	311.68 m			Span Length	22.03 / 30.00 / 27.50 / 30.15 / 30.00 / 30.00 / 30.00 / 30.00 / 30.00 / 30.00 / 22.0		
Name of Road	Marcos Highway		Location	Marikina City		Chainage					

Approach Road

Road Width (m)		16.41 / 25.20			
Lane	No.	2	Width		(m)
Sidewalk	Type	Concrete	Width	1.65 / 3.50	(m)
Median	Type	Concrete	Width	3.86 / 1.00	(m)
Pavement	Type	Concrete	Thickness	((23))	(cm)
Traffic Volume				Both Direction/day	

Superstructure

Alignment	Skew	26° 30'	Curve		
Main Girder	Type	AASHTO Girder Type IV-A			
	Height	1.49 m			
	Number	12 per span			
	Space	1.70			(m)
Cross Beam	Type	Concrete			
	No.	20			
Stringer	Type	-			
	No.	-			
Pavement	Type	Asphalt	Thickness	((5))	(cm)
Slab	Type	Concrete	Thickness	((20))	(cm)
Shoe	Type	Neoprene	Reaction	41.42 (max.)	(t)
Expansion Joint	Type	Steel			
Handrail	Type	Concrete			

Abutment

	Type	Wall Type			
	Wall	Height	((1.30))	(m), Width	0.90	(m)
	Footing	Length	None	(m), Width	None	(m)
	Foundation	Type	((RC Pile))	Length	((15.00))	(m)

Pier

	Type	Column Type			
	Coping	Height	1.32	(m), Width	2.58	(m)
	Column	Height	((7.80))	(m), size	⊃1.50	(m)
	Footing	Length	((22.50))	(m), Width	((4.00))	(m)
	Foundation	Type	((RC Pile))	Length	((10.00))	(m)

Design

Specification	(AASHTO 1977)	
Live Load	(HS 20 - 44)	
Seismic Coefficient	0.10(DL+1/2 LL)	
Design Date	(1978)	

Construction

Concrete	f'c	(21 MPa)
Reinforcing Bar	fy	(275 Mpa, Grade 40)
P.C. Material	f'c	(35 Mpa), f'su (1862 Mpa, Grade 270)
Steel Material	fy	((248 Mpa))
Construction Date	(1978)	

Remarks: ( ) as-built data / (( )) assumption data

Reference No.	Ma4
Inventory Date	November 21, 2002
Inventory Office	KEI - PROCONSULT

Name of Bridge : _____16.0 Marikina Bridge_____

Bridge Type	PCI Girder Bridge (5-Span)			Bridge Length	138.20 m			Span Length	24.20 / 30.00 / 30.00 / 30.00 / 24.00		
Name of Road	A. Bonifacio Ave./E. Rodriques Ave.		Location	Marikina City		Chainage					

Approach Road

Road Width (m)		16.67 / 13.10			
Lane	No.	4	Width	3 - 8.30	(m)
Sidewalk	Type	Concrete	Width	1.80 / 1.20	(m)
Median	Type	-	Width	-	(m)
Pavement	Type	Asphalt	Thickness	((5))	(cm)
Traffic Volume				Both Direction/day	

Superstructure

Alignment	Skew	90°	Curve		
Main Girder	Type	AASHTO GIRDER TYPE III (Modified)			
	Height	1.42 m			
	Number	12 per span			
	Space	1.70			(m)
Cross Beam	Type	Concrete			
	No.	128			
Stringer	Type	-			
	No.	-			
Pavement	Type	Asphalt	Thickness	((5))	(cm)
Slab	Type	Concrete	Thickness	((23))	(cm)
Shoe	Type	Steel	Reaction	44.03 (max.)	(t)
Expansion Joint	Type	Steel (Fingers)			
Handrail	Type	Concrete			

Abutment

	Type	Wall Type			
	Wall	Height	((1.545))	(m), Width	1.30	(m)
	Footing	Length	None	(m), Width	None	(m)
	Foundation	Type	((RC Pile))	Length	((12))	(m)

Pier

	Type	Column Type			
	Coping	Height	1.23	(m), Width	2.45	(m)
	Column	Height	5.38 / 9.80 / 5.00	(m), size	⊃1.80	(m)
	Footing	Length	22.50	(m), Width	5.00	(m)
	Foundation	Type	((RC Pile))	Length	((16 & 17))	(m)

Design

Specification	(AASHTO 1977)	
Live Load	(HS 20 - 44)	
Seismic Coefficient	0.10(DL+1/2 LL)	
Design Date	(1979)	

Construction

Concrete	f'c	(21 MPa)
Reinforcing Bar	fy	(275 Mpa, Grade 40)
P.C. Material	f'c	(35 Mpa), f'su (1862 Mpa, Grade 270)
Steel Material	fy	(248 MPa)
Construction Date	((1980))	

Remarks: ( ) as-built data / (( )) assumption, other data

VISUAL INSPECTION REPORT (1/5)
BRIDGE INVENTORY

Reference No.   Ma5
Inventory Date   December 13, 2002
Inventory Office   KEI - PROCONSULT

Name of Bridge :   17.0 San Jose Bridge

Bridge Type	PCI Girder Bridge (8-Span)			Bridge Length		199.67 m		Span Length		24.90 / 24.97 / 24.95 / 24.97 / 25.00 /
Name of Road	Rodrigues Highway		Location	Montalban, Rizal		Chainage				24.97 / 24.96 / 24.95

Approach Road	Road Width (m)		15.80 / 15.74				**Abutment**	Type	Wall Type			
	Lane	No.	4	Width	2 - 7.90	(m)		Wall	Height	((1.20))	(m), Width	1.20 (m)
	Sidewalk	Type	Concrete	Width	1.70 / 1.80	(m)		Footing	Length	None	(m), Width	None (m)
	Median	Type	Concrete	Width	1.40 / 1.00	(m)		Foundation	Type	((RC Pile))	Length	((10)) (m)
	Pavement	Type	Concrete	Thickness	((23))	(cm)	**Pier**	Type	Column Type			
	Traffic Volume				Both Direction/day			Coping	Height	1.00	(m), Width	1.62 (m)
Superstructure	Alignment	Skew	90°	Curve				Column	Height	6.00 / 6.95	(m), size	1.00 (m)
	Main Girder	Type	AASHTO PSC Girder Type IV (Modified)					Footing	Length	18.12	(m), Width	2.80 (m)
		Height	1.40 m					Foundation	Type	RC Pile	Length	((10)) (m)
		Number	8 per span				**Design**	Specification	(AASHTO 1977)			
		Space	2.30			(m)		Live Load	(MS - 18)			
	Cross Beam	Type	Concrete					Seismic Coefficient	0.10(DL+1/2 LL)			
		No.	14 end, 14 Intermediate / Span					Design Date	Unknown			
	Stringer	Type	-				**Construction**	Concrete	f'c	(21 MPa)		
		No.	-					Reinforcing Bar	fy	(275 Mpa, Grade 40)		
	Pavement	Type	Asphalt	Thickness	((5))	(cm)		P.C. Material	f'c	(35 Mpa),	f'su	(1862 Mpa, Grade 270)
	Slab	Type	Concrete	Thickness	((20))	(cm)		Steel Material	fy	(248 Mpa)		
	Shoe	Type	Steel	Reaction	50 (max.)	(t)		Construction Date	(1980)			
	Expansion Joint	Type	Steel (Angular)				**Remarks**	( ) as-built data				
	Handrail	Type	Concrete					(( )) assumption data				