

Inspection sheet of visual survey

Bridge No. 11

Photo No. (~)

Bridge name		RAMA VIII Bridge		Route name		-		Authority		BMA		Code of authority		-		
Place		from Khat Bang Phlat to Khet Phra Nakhon		Distance		from km+ 0 to km+ 0						No.		-		
												Survey date		23-Oct-2009		
Bridge properties	Bridge type(1)	main road · side road · ramp														
	Bridge type(2)	bridge · viaduct · plank pass														
	Bridge type(3)	4-span composite 2 l girder cable stayed bridge														
	Total length	475.00 (m)														
	Span	75 + 50 + 50 + 300 (m)														
	Nos. of span	4 span														
	Width	29.20 (m) / (m)														
	Completion	2002														
Road information	Horizontal	Straight · incli(= 2 %) · Curve (R m)														
	Gradient	One way (·) parab (▽ · ▽)														
	Nearby tunnel	yes · no (m)														
	Nearby crossing	yes · no (ramp way)														
	Traffic	Much · Medium · Little														
	Commercial traffic	Much · Medium · Little														
Environment	1.Urban	2.Suburbs	3.Mountain	4.Seaside												
	5.Industrial	6.Harbor	7.Residential	8.Bussiness												
	9.Salty	10.Cold and snow	11.Heavy snow	12.Others												
Under bridge	1.Shinkansen	2.Railway	3.Highway	4.Road												
	5.River	6.Lake	7.Ravine	8.Valley												
	9.Waterway	10.Parking	11.Bike parkin	12.Park												
	13.Vacant	14.Harbor	Name (Chao Phraya)													
Access method	Superstructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others(Inspection vehicle)														
	Substructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others(Inspection vehicle)														
	Reason	· Center span section is on the water · If inspection car is not available, false work will be required														
Survey result	Joint	Camber deform	yes · no													
		Difference in grade	yes · no													
		Continuous of barrier	yes · no													
		Continuous of curve	yes · no													
Outline of damage	Noise	Space change	yes · no													
		difference grade	yes · no													
		draining damage	yes · no													
		Blocked drainage	yes · no													
Inspection way	Vehicle	Crack of pavement	yes · no													
		Damage of lighting	yes · no													
		Damage of sign	-													
		Damage of handrail	yes · no													
Diagnosis	Height of girde	Possibility of scour	yes · no													
		Walkway	yes · no													
		Vehicle	yes · no													
Impressions	History of repair															
Surveyor ;		Mr.Chujo, Mr.Kudo														

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Appendices

Present state (1 / 8)

Authority	BMA	Address	Bangkok	Data	23-Oct-09
Bridge	RAMA VIII				



Picture No.	1
Span	1
Member	Side view

*Survey on board, 31-oct






Picture No.	2
Span	1
Member	View on road






Picture No.	3
Span	1
Member	View under bridge


Present state (3 / 8)					
Authority	BMA	Address	Bangkok	Data	23-Oct-09
Bridge	RAMA VIII				

	Picture No.	7
	Span	1
	Member	View of cable
	Helical type wind resistance	
	Picture No.	8
	Span	1
	Member	Cable
	Leakage from cable	
	Picture No.	9
	Span	1
	Member	Cable
	Leakage from cable	
	Opening under side of cable cover for drainage	


Present state (4 / 8)					
Authority	BMA	Address	Bangkok	Data	23-Oct-09
Bridge	RAMA VIII				

	Picture No.	10
	Span	1
	Member	Cable fixing structure
	Gap and calking between cable and slab. And mounted up around cable to prevent remaining water.	
	Picture No.	11
	Span	1
	Member	Cable fixing structure
	slab. And mounted up around cable to prevent remaining water.	
	Picture No.	12
	Span	1
	Member	Cable fixing structure
	Calking and name plate of cable	
	well maintained but aging	


Present state (5 / 8)					
Authority	BMA	Address	Bangkok	Data	23-Oct-09
Bridge	RAMA VIII				



Picture No.	7
Span	1
Member	Side span and approach
side span is 3+2 lane for ramp wa	






Picture No.	8
Span	1
Member	Anchorage




Picture No.	9
Span	1
Member	Newell


Present state (6 / 8)					
Authority	BMA	Address	Bangkok	Data	23-Oct-09
Bridge	RAMA VIII				

	Picture No.	10
	Span	1
	Member	Pavement
	Pot-hole	
	Picture No.	11
	Span	1
	Member	Drainage
	Picture No.	12
	Span	1
	Member	Cross beam
	Leakage and small fracture of concrete surface	


Present state (7 / 8)					
Authority	BMA	Address	Bangkok	Data	23-Oct-09
Bridge	RAMA VIII				



Picture No.	7
Span	1
Member	Barrier
Lack of bolt cap	





Picture No.	8
Span	1
Member	Hand rail of walkway



Picture No.	9
Span	1
Member	Cable fixing of pylon

Present state (8 / 8)					
Authority	BMA	Address	Bangkok	Data	23-Oct-09
Bridge	RAMA VIII				

	Picture No.	10
	Span	1
	Member	Decorative plate
	leakage line	
	Picture No.	11
	Span	1
	Member	Bearing
	Picture No.	12
	Span	1
	Member	

Inspection sheet of visual survey


Bridge No. 12


Photo No. (~)


Bridge name		Pinklao Bridge		Route name		-		Authority		Code of authority		-	
Place		from Khat Bangkok Noi		Distance		from km+ 0				No.		-	
		to Khet Phra Nakhon				to km+ 0				Survey date		2009/10/23	
Bridge properties	Bridge type(1)	main road · side road · ramp											
	Bridge type(2)	bridge · viaduct · plank pass											
	Bridge type(3)	3-span continuous PC box girder											
	Total length	276.00 (m)											
	Span	83 + 110 + 83 (m)											
	Nos. of span	4 span											
	Width	32.21 (m) / (m)											
Completion	1973												
Road information	Horizontal	Straight · incli(= °) · Curve (R m)											
	Gradient	One way (·) parabo (▽ · ▽)											
	Nearby tunnel	yes · no (m)											
	Nearby crossing	yes · no (m)											
	Traffic	Much · Medium · Little											
Environment	Commercial traffic	Much · Medium · Little											
Under bridge	1.Urban	2.Suburbs	3.Mountain	4.Seaside									
	5.Industrial	6.Harbor	7.Residential	8.Bussiness									
Access method	Superstructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()											
	Substructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()											
Reason	· All bridge section is on the water												
	· If inspection car is not available, false work will be required												
Diagnosis	Deterioration of bridge deficient · fair · good												
	Noticeable point												
History of repair	· Crack of pier of approach												
	· Leakage from manhole												
Surveyor	Mr.Chujo, Mr.Kudo												

Appendices

Present state (1 / 7)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pin Klao Bridge				

	Picture No.	1
	Span	1
	Member	Side view

	Picture No.	2
	Span	1
	Member	View on road

	Picture No.	3
	Span	1
	Member	View under girder

Present state (2 / 7)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pin Klao Bridge				



Picture No.	4
Span	1
Member	Hinge




Picture No.	5
Span	1
Member	Expansion joint
Corrosion at end	




Picture No.	6
Span	1
Member	Expansion joint
Corrosion	


Present state (3 / 7)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pin Klao Bridge				


	Picture No.	7
	Span	1
	Member	Expansion joint
	Center hinge part	


	Picture No.	8
	Span	1
	Member	Expansion joint
	Deterioration of drain function	
	Bangkok side	
	No door in manhole	

	Picture No.	9
	Span	1
	Member	bottom slab
	Deterioration of drain function	
	Thon Buri side	

Present state (4 / 7)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pin Klao Bridge				

	Picture No.	10
	Span	1
	Member	Approach bridge
	Crack	

	Picture No.	11
	Span	1
	Member	Man hole
	Leakage from manhole	
	Leakage from water supply?	

	Picture No.	12
	Span	1
	Member	Pylon
	Mark of leakage from joint of barrier	

Present state (5 / 7)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pin Klao Bridge				



Picture No.	13
Span	1
Member	Drainage
Blocking	




Picture No.	14
Span	1
Member	Lighting pole
Deterioration of corrosion proofi	



Picture No.	15
Span	1
Member	Walkway
Graffiti	
Fracture of decorative plate	

Present state (7 / 7)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pin Klao Bridge				

	Picture No.	19
	Span	1
	Member	Substructure
	<i>*Survey on board, 31-oct</i>	
	Picture No.	20
	Span	1
	Member	
	Picture No.	21
	Span	1
	Member	




Inspection sheet of visual survey

Bridge No. 13

Photo No. (~)

Bridge name		Memorial Bridge		Route name		-		Authority		Code of authority		-	
Place		from Khat Thon Buri		Distance		from km+ 0				No.		-	
		to Khet Phra Nakhon				to km+ 0				Survey date		2009/10/23	
Bridge properties	Bridge type(1)	main road · side road · ramp											
	Bridge type(2)	bridge · viaduct · plank pass											
	Bridge type(3)	3-span steel truss											
	Total length	234.00 (m)											
	Span	78 + 78 + 78 (m)											
	Nos. of span	3 span											
	Width	10.00 (m) / (m)											
	Completion	1932											
Road information	Horizontal	Straight · incli(= °) · Curve (R m)											
	Gradient	One way (·) parabo (▽ · ▽)											
	Nearby tunnel	yes · no (m)											
	Nearby crossing	yes · no (m)											
	Traffic	Much · Medium · Little											
	Commercial traffic	Much · Medium · Little											
Environment	1.Urban	2.Suburbs	3.Mountain	4.Seaside									
	5.Industrial	6.Harbor	7.Residential	8.Bussiness									
	9.Salty	10.Cold and snow	11.Heavy snow	12.Others									
Under bridge	1.Shinkansen	2.Railway	3.Highway	4.Road									
	5.River	6.Lake	7.Ravine	8.Valley									
	9.Waterway	10.Parking	11.Bike parkin	12.Park									
	13.Vacant	14.Harbor	Name (Chao Phraya)										
Access method	Superstructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others(Inspection vehicle)											
	Substructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()											
	Reason	· All bridge section is on the water · If inspection car is not available, false work will be required for center span											
Survey result	Joint	Camber deform	yes · no										
		Difference in glade	yes · no										
		Continuous of barrier	yes · no										
		Continuous of curve	yes · no										
	Outline of damage	Noise	yes · no										
		Space change	yes · no										
		difference grade	yes · no										
		draining damage	yes · no										
Inspection way	Blocked drainage	yes · no											
	Crack of pavement	yes · no											
	Damage of lighting	yes · no											
	Damage of sign	-											
Diagnosis	Damage of handrail	yes · no											
	Possibility of scour	yes · no											
	Walkway	yes · no											
	Vehicle	yes · no (center span)											
Impressions	Height of girde	about 7.3m											
	· Serious damage by ship collision and vehicle collision was seen. · 1 cross frame of center span was dropped off · Remaining water was found in chord member · Longitudinal crack located between walkway and roadway might be caused by insufficie rigidity of support member of walkway. More detailed survey is recommended. · Some rivet was lost												
	History of repair ; · Maintenance and repairing work was done by ODA at 1984 Repaint ; - yy - mm												
	Surveyor ; Mr.Chujo, Mr.Kudo												

Present state (1 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	1
	Span	1
	Member	Side view
	Picture No.	2
	Span	1
	Member	View on road
	Picture No.	3
	Span	1
	Member	View under girder
	Inspection vehicle of side span.	
	No inspection vehicle in center span	

Present state (2 / 18)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				



Picture No.	4
Span	1
Member	Side view of side span



Picture No.	5
Span	2
Member	side view of center sp



Picture No.	6
Span	1
Member	View of walkway

Present state (3 / 18)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				



Picture No.	7
Span	1
Member	material
The material made in England	
It's seems that same fabricator provide material for repairing wo	



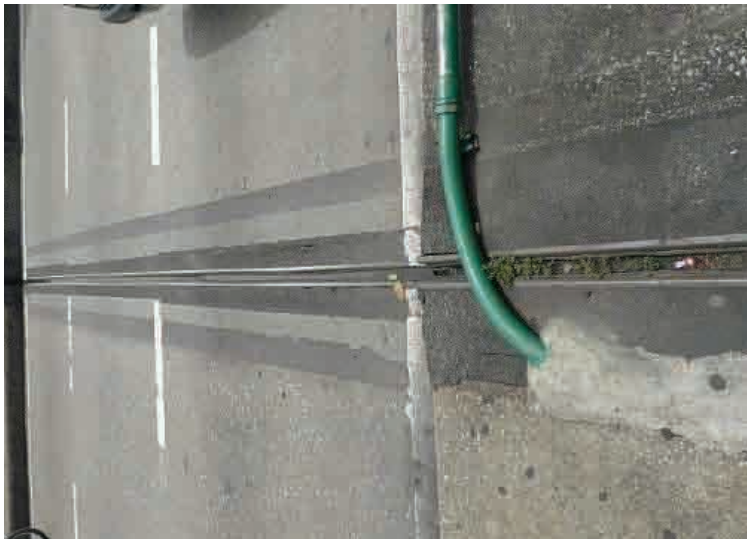


Picture No.	8
Span	1
Member	Material
A325 (ASTM), NKYM	
High tension bolt produced MISUBOSHI	




Picture No.	9
Span	1
Member	Inspection vehicle
Han powered inspection vehicle.	

Present state (4 / 18)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	10
	Span	1
	Member	Expansion joint
	Bangkok side	
	Picture No.	11
	Span	1
	Member	Expansion joint
	Bangkok side	
	Deterioration of corrosion proofi	
	Picture No.	12
	Span	1
	Member	Expansion joint
	between side span and center span	
	Peeling of surface layer	




Present state (5 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	7
	Span	1
	Member	Bearing
	Deterioration of corrosion proofing	
	Picture No.	8
	Span	1
	Member	Bearing
	Remaining water	
	Picture No.	9
	Span	1
	Member	Bearing
	Mark of remarkable corrosion	
	There is no remaining water at survey. Improved?	




Present state (6 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	10
	Span	1
	Member	Stay cable
	Connection between steel and slab	
	It looks make gap around steel member from bottom side.	
	Picture No.	11
	Span	1
	Member	Inspection vehicle
	Mounted up around steel member to prevent remaining water.	
	It looks no gap around steel member from top side.	
	Picture No.	12
	Span	1
	Member	slab
	It looks no gap around steel member from top side.	

Present state (7 / 18)					
Authority	DRR	n	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	13
	Span	1
	Member	slab
	Reinforcement by additional plate	
	Original structure is connected by rivet	
	Reinforcement structure is connected by high tension bolt.	
	Picture No.	14
	Span	1
	Member	slab
	Reinforcement plate top and bottom of member	
	Picture No.	15
	Span	1
	Member	slab
	Remaining water is seen inside of chord member	

Present state (8 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	16
	Span	1
	Member	slab
	Remaining water It will make corrosion	
	Picture No.	17
	Span	1
	Member	slab
	Remarkable reduced section	
	Picture No.	18
	Span	1
	Member	slab
	Rivet is not changed to bolt.	
	Reinforcement plate was connected only center by bolt.	

Present state (9 / 18)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				



Picture No.	13
Span	1
Member	slab
Deterioration of corrosion proofing	






Picture No.	14
Span	1
Member	slab
Corrosion of diaphragm	
Accumulation of soil	



Picture No.	15
Span	1
Member	Lighting pole
Corrosion of diaphragm	

Present state (10 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

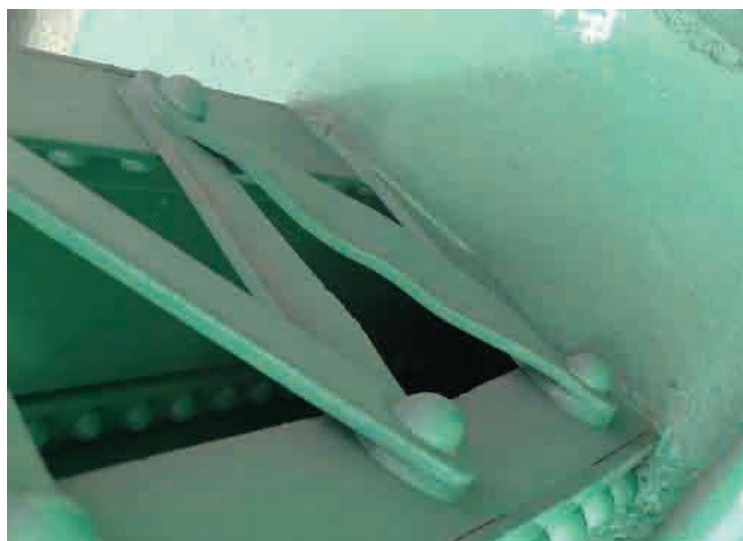
	Picture No.	16
	Span	1
	Member	Chord member
	Repaired member	
	Picture No.	17
	Span	1
	Member	Bolt
	Rivet was replaced by bolt	
	Picture No.	18
	Span	1
	Member	Bolt
	Looseness of bolt	

Present state (11 / 18)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				



Picture No.	19
Span	1
Member	Bolt
Falling of rivet	





Picture No.	20
Span	1
Member	Upper chord
Deformation	



Picture No.	21
Span	1
Member	Lighting pole
Corrosion	

Present state (12 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	22
	Span	1
	Member	Stringer
	Stringer is connected by high tension bolt.	
	All stringer might be replaced at repairing work	
	Picture No.	23
	Span	1
	Member	Bottom chord
	Deformation by vehicle collision	
	Limit of vehicle height is 3.5m	
	No warning frame is set before bridge at Thon Buri side	
	Picture No.	24
	Span	1
	Member	Bottom chord
	Deformation by vehicle collision	
	Thon Buri side	

Present state (13 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	25
	Span	1
	Member	Cross frame
	Thon Buri side	
	Buckling by vehicle collision	
	Picture No.	26
	Span	1
	Member	End cross beam
	Deformation	
	Picture No.	27
	Span	1
	Member	Bottom chord
	Rupture of rivet by vehicle collision	

Present state (14 / 18)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				



Picture No.	28
Span	1
Member	Monitoring camera



Picture No.	29
Span	1
Member	Warning frame




There is warning frame at Bangkok side



Picture No.	30
Span	1
Member	slab

Crack on slab

Present state (15 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	31
	Span	1
	Member	slab
	Replaced slab	
	Free lime is seen on slab of center span and walkway	
	Picture No.	32
	Span	1
	Member	slab
	Crack and free lime	
	Picture No.	33
	Span	1
	Member	Drainage
	Blocked	


Present state (16 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	34
	Span	1
	Member	Slab
	Longitudinal crack between road and walkway	
	Insufficiency of rigidity of bracket member of walkway?	
	<i>*Survey on board, 31-oct</i>	
	Picture No.	35
	Span	1
	Member	Slab
	Longitudinal crack between road and walkway	
	<i>*Survey on board, 31-oct</i>	
	Picture No.	36
	Span	1
	Member	Slab
	Longitudinal crack between road and walkway	
	Fracture of surface	
	<i>*Survey on board, 31-oct</i>	

Present state (17 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	37
	Span	1
	Member	slab
	Crack and free lime on bottom surface of slab	
	Deformation of cross frame by ship collision	
	<i>*Survey on board, 31-oct</i>	
	Picture No.	38
	Span	1
	Member	Inspection car rail
	Lack of bolt	
	<i>*Survey on board, 31-oct</i>	
	Picture No.	39
	Span	1
	Member	Cross frame
	Drop off 1 member by ship collision	
	<i>*Survey on board, 31-oct</i>	

Present state (18 / 18)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Memorial Bridge				

	Picture No.	40
	Span	1
	Member	Gusset plate
	Damage by ship collision	
	<i>*Survey on board, 31-oct</i>	
	Picture No.	41
	Span	1
	Member	
	Picture No.	42
	Span	1
	Member	

Inspection sheet of visual survey

Bridge No. 14

Photo No. (~)

Bridge name		Phra Pokklao Bridge		Route name		-		Authority		Code of authority		-	
Place		from Khat Bangkok Noi		Distance		from km+ 0				No.		-	
		to Khet Phra Nakhon				to km+ 0				Survey date		2009/10/23	
Bridge properties	Bridge type(1)	main road · side road · ramp											
	Bridge type(2)	bridge · viaduct · plank pass											
	Bridge type(3)	3-span continuous PC box girder											
	Total length	212.00 (m)											
	Span	56 + 100 + 56 (m)											
	Nos. of span	3 span											
	Width	13.2 X 2 (m) / (m)											
	Completion	1984											
Road information	Horizontal	Straight · incli(= °) · Curve (R m)											
	Gradient	One way (·) parabo (▽ · ▽)											
	Nearby tunnel	yes · no (m)											
	Nearby crossing	yes · no (m)											
	Traffic	Much · Medium · Little											
	Commercial traffic	Much · Medium · Little											
Environment	1.Urban	2.Suburbs	3.Mountain	4.Seaside									
	5.Industrial	6.Harbor	7.Residential	8.Bussiness									
	9.Salty	10.Cold and snow	11.Heavy snow	12.Others									
Under bridge	1.Shinkansen	2.Railway	3.Highway	4.Road									
	5.River	6.Lake	7.Ravine	8.Valley									
	9.Waterway	10.Parking	11.Bike parkin	12.Park									
	13.Vacant	14.Harbor	Name (Chao Phraya)										
Access method	Superstructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()											
	Substructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()											
	Reason	· All bridge section is on the water · If inspection car is not available, false work will be required											
Survey result	Joint	Camber deform	yes · no										
		Difference in glade	yes · no										
		Continuous of barrier	yes · no										
		Continuous of curve	yes · no										
	Noise	Noise	yes · no										
		Space change	yes · no										
		difference grade	yes · no										
		draining damage	yes · no										
Blocked drainage	Blocked drainage	yes · no											
	Crack of pavement	yes · no											
	Damage of lighting	yes · no											
	Damage of sign	-											
Damage of handrail	Damage of handrail	yes · no											
	Possibility of scout	yes · no											
	Walkway yes · no												
	Vehicle yes · no												
Inspection way													
Impressions													
Diagnosis	Deterioration of bridge deficient · fair · good												
	Noticeable point												
Outline of damage	Item	Type	State										
	Main girder	PC-Box	free lime										
	Cross beam	-	-										
	Stringer	-	-										
Outline of damage	Cross frame	-	-										
	Lateral brace	-	-										
	Slab		free lime										
	Abutment	-	-										
	Pier	Rectangular	-										
	Bearing	Slide bearing	-										
	Barrier	Trapezoidal	Exfoliation										
	Railing	Steel	Generally healthy										
	Curb	-	-										
	Pavement	asphalt · concrete	Generally healthy										
	Joint	drained · indrained	leakage at end										
	Drainage	yes · no	Generally healthy										
History of repair ; Repaint ; - yy - mm													
Surveyor ; Mr.Chujo, Mr.Kudo													

Present state (1 / 4)

Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pokklao Bridge				



Picture No.	1
Span	1
Member	Side view





Picture No.	2
Span	1
Member	View on road




Picture No.	3
Span	1
Member	View under girder


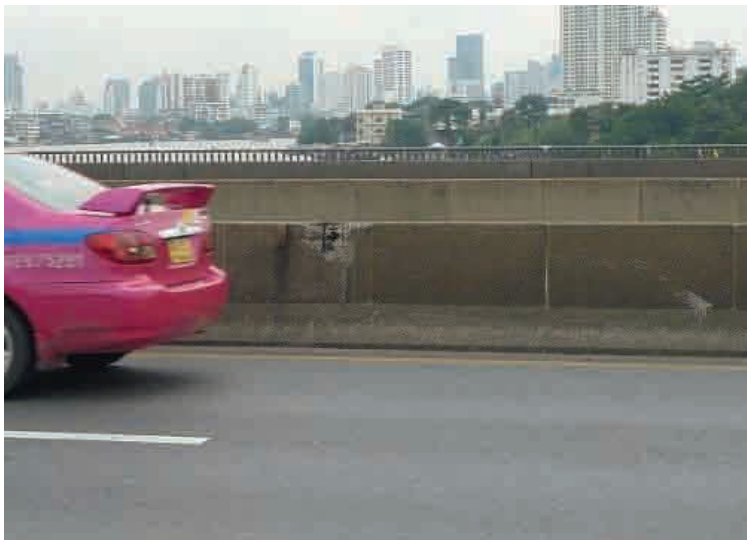

Present state (2 / 4)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pokklao Bridge				

	Picture No.	4
	Span	1
	Member	Approach bridge
	Settlement around pier	



	Picture No.	5
	Span	1
	Member	Catch basin

	Picture No.	6
	Span	1
	Member	Catch basin
	Cross fall is parabola?	
	Catch basin is installed at both side	

Present state (3 / 4)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pokklao Bridge				

	Picture No.	7
	Span	1
	Member	Side barrier
	Exfoliation of concrete	
	Picture No.	8
	Span	1
	Member	Center barrier
	Fracture of concrete surface	
	Picture No.	9
	Span	1
	Member	
	Free lime	
	Deterioration of drain function	
<i>*Survey on board, 31-oct</i>		

Present state (4 / 4)					
Authority	DRR	Address	Bangkok	Data	23-Oct-09
Bridge	Phra Pokklao Bridge				

	Picture No.	10
	Span	1
	Member	Drainage
	Scratch by ship collision	
	Picture No.	11
	Span	1
	Member	Substructure
	Picture No.	12
	Span	1
	Member	Pylon


Inspection sheet of visual survey

Bridge No. 15


Photo No. (~)

Bridge name		Taksin Bridge		Route name		-		Authority		Code of authority		-	
Place		from Khet Khlong San		Distance		from km+ 0		Survey date		2009/10/27		-	
		to Khet Sathoo				to km+ 0							
Bridge properties	Bridge type(1)	main road · side road · ramp											
	Bridge type(2)	bridge · viaduct · plank pass											
	Bridge type(3)	3-span continuous PC box girder											
	Total length	224.00 (m)											
	Span	66 + 92 + 66 (m)											
	Nos. of span	3 span											
	Width	12.85 x 2 (m) / (m)											
	Completion	1982											
Road information	Horizontal	Straight · incli(= °) · Curve (R m)											
	Gradient	One way (·) parab (▽ · ▽)											
	Nearby tunnel	yes · no (m)											
	Nearby crossing	yes · no (m)											
	Traffic	Much · Medium · Little											
	Commercial traffic	Much · Medium · Little											
Environment	1.Urban	2.Suburbs	3.Mountain	4.Seaside									
	5.Industrial	6.Harbor	7.Residential	8.Bussiness									
	9.Salty	10.Cold and snow	11.Heavy snow	12.Others									
Under bridge	1.Shinkansen	2.Railway	3.Highway	4.Road									
	5.River	6.Lake	7.Ravine	8.Valley									
	9.Waterway	10.Parking	11.Bike parkin	12.Park									
	13.Vacant	14.Harbor	Name (Chao Phraya)										
Access method	Superstructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()											
	Substructure	1.Inspection car 2.Falsework 3.On ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()											
	Reason	· All bridge section is on the water · If inspection car is not available, false work will be required											
Survey result	Joint	Camber deform	yes · no										
		Difference in glade	yes · no										
		Continuous of barrier	yes · no										
		Continuous of curve	yes · no										
	Noise	Noise	yes · no										
		Space change	yes · no										
		difference grade	yes · no										
		draining damage	yes · no										
Blocked drainage	Blocked drainage	yes · no											
	Crack of pavement	yes · no											
	Damage of lighting	yes · no											
	Damage of sign	-											
Damage of handrail	Damage of handrail	yes · no											
	Possibility of scour	yes · no											
	Walkway yes · no												
	Vehicle yes · no												
Inspection way													
Outline of damage	Item	Type	State										
	Main girder	PC-Box	free lime, Suspicious of crack										
	Cross beam	-	-										
	Stringer	-	-										
Cross frame	Cross frame	-	-										
	Lateral brace	-	-										
	Slab		free lime, leakage										
	Abutment	-	-										
Pier	Pier	V shape	-										
	Bearing	Slide bearing	Deterioration of proofing										
	Barrier	Trapezoidal	Lack of cover at expansion joint, Exfoliation										
	Railing	Steel	Generally healthy										
Curb	Curb	-	-										
	Pavement	asphalt · concrete	Unevenness										
	Joint	drained · indrained	leakage at end										
	Drainage	yes · no	Blocked										
Impressions	· Suspicious of shear crack is found in Thonburi side span. It is recommended watching continuously												
	· Movement to center span was seen at Bangkok side bearing. It is recommended watching continuously.												
	· Cover of barrier and railing was disappear on expansion joint.												
History of repair	History of repair ; Repaint ; - yy - mm												
	Surveyor ; Mr.Chujo, Mr.Kudo												
Diagnosis	Deterioration of bridge deficient · fair · good												
	Noticeable point												
	· Crack or cold joint on web												
	· Longitudinal move of girder												


Present state (1 / 8)					
Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				



Picture No.	1
Span	1
Member	Side view





Picture No.	2
Span	1
Member	View on road




Picture No.	3
Span	1
Member	View under girder

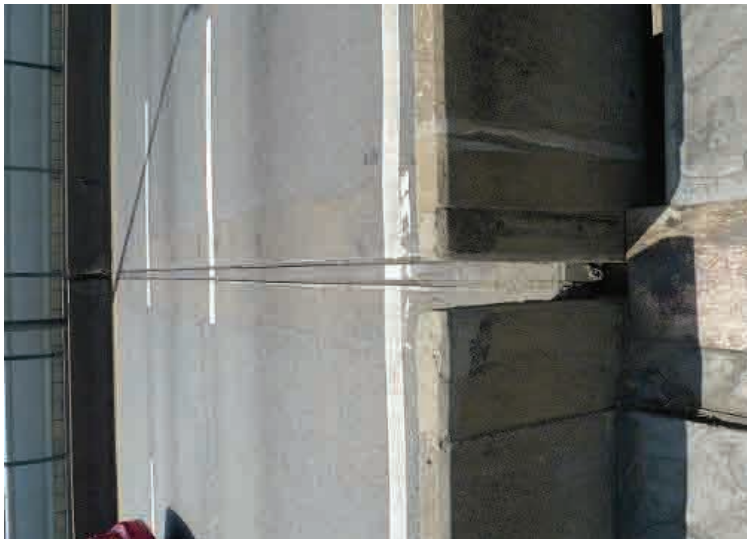


Present state (2 / 8)					
Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				

	Picture No.	4
	Span	1
	Member	Expansion Joint
	Replaced expansion joint	


	Picture No.	5
	Span	1
	Member	Expansion joint
	Spacing is wider than 3cm than other joint	
	Bangkok side, down stream	


	Picture No.	6
	Span	1
	Member	Expansion joint
	Lack of cover of barrier and curv	


Present state (3 / 8)					
Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				

	Picture No.	7
	Span	1
	Member	Water supply
	modular type is applied for the bridge of upstream	
	Lack of cover of barrier	
	Picture No.	8
	Span	1
	Member	Bearing
	Movement of bearing.	
	Bangkok side	
	Already reach to end of sliding plate	
	Picture No.	9
	Span	1
	Member	Bearing
	Movement of Thon Buri side is sma	

Present state (4 / 8)					
Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				

	Picture No.	10
	Span	1
	Member	Expansion joint
	Deterioration of drain function	
	Mark of leakage	

	Picture No.	11
	Span	1
	Member	Vertical alignment
	Bent angle between main bridge and approach bridge	

	Picture No.	12
	Span	1
	Member	Slab
	Free lime	

Present state (5 / 8)


Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				





Picture No.	7
Span	1
Member	Box girder
Shear crack or severe cold joint	
Detailed study is recommended	
Free lime from filled hole	
Without waterproofing?	

[illegible][illegible]


Present state (6 / 8)					
Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				


	Picture No.	10
	Span	1
	Member	Slab
	Mark of repair	


	Picture No.	11
	Span	1
	Member	Bearing
	Leakage from joint	
	Upstream, Thon Buri side	

	Picture No.	12
	Span	1
	Member	Lighting pole
	Free lime (lower)	
	Crack (upper)	
	Upstream, Bangkok side	




Present state (7 / 8)					
Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				

	Picture No.	7
	Span	1
	Member	Catch basin
	Blocking	

	Picture No.	8
	Span	1
	Member	Pavement
	Uneavenness of pavement	
	Upstream, Bangkok side	

	Picture No.	9
	Span	1
	Member	Walkway
	Feeling uneasy due to wide gap	

Present state (8 / 8)					
Authority	DRR	Address	Bangkok	Data	27-Oct-09
Bridge	Taksin bridge				

	Picture No.	10
	Span	1
	Member	Girder
	Free lime from construction joint	
	Picture No.	11
	Span	1
	Member	Girder
	Acumuration of soil	
	Picture No.	12
	Span	1
	Member	Pier
	Test of carbonation is recommende	