Bridge Inspection

Bridge File Number	09982 -1 Bridge	Form Type	PCS
Year Built/Year Supstr	1970/1970	Lot No.	2
		Inspector Name	Tom Carey
Bridge or Town Name	IRVINE	Inspector Class	BR CLS A
Located Over	MCALPINE CREEK, 28.5, WATERCRS-ST	Assistant Name	
Located On	515:02 C1 9.171	Assistant Class	
Water Body Cl./Year		Inspection Date	12-Mar-2012
Navigabil. Cl./Year		Data Entry By	Erin Roberts
Legal Land Location	SE SEC 4 TWP 10 RGE 2 W4M	Data Entry Date	08-Apr-2012
Longitude, Latitude	-110:12:58, 49:47:10	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	24-Mar-2012
Contract Main. Area	CMA23	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	8.2 / -30 deg. (LHF)	Dept. Review Date	17-Apr-2012
AADT/Year	80 / 2011 (A)	Follow-Up By	
Road Classification	RCU-208-110		
Detour Length (km)	5		

Allowable Load (t):	Single	CS1 30 GIRDER	Semi	CS2 52 GIRDER	Train	CS3 75 GIRDER	---> On Critical Spans --->Critical Member
Design Loading:		HS20					---> Primary Span

Posting Information

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	EB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Posted:	Lane	WB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Remarks								

Hazard Marker At Bridge (Y/N)	Yes
Remarks	
Other Sign Types	

Utilities (Located at)

Utility Attachments			
Telephone	South side.	Gas	
Power	3 wires North side.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	
Vertical Alignment		7	7	
Roadway Width (m)	8.200			
Approach Bump		7	7	
Guardrail (Y/N)	Yes			Not thriebeam.
Guardrail		7	7	
Length (m)	11.000			
Current Standard (Y/N)	No			
Termination Type	TURNDOWN			
Drainage		6	7	
Approach Road General Rating		**7**	**7**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **HC, 1 Spans, Lengths(m): 8.5, A-Ident Number:**)				
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
Last	100			
Now	70.0	0.0	0.0	0.0
Wearing Surface		N	4	2 center girders are abraded - exposing top steel of girders.
(Material Type : **CONCRETE**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)				
Deck Top		N	N	
Deck Rideability		6	6	
Deck Joints		N	N	(Rebar exposed especially East abutment.) Gravel covered.
Bump (Y/N)	No			
Deck Drainage		5	5	Gravel restricting flow.
Drains Clogged (Y/N)	No			
Curbs/Median		6	5	Corner spalls have been repaired. Spall at North exposing rebar at one isolated area.
(Curb Type : **Standard**)				
Scaling (Percent Area)	10			
Bridge Rail		6	7	Double layer.
(Type : **GALVANIZED STEEL FLEX BEAM**)				
Bridge Rail Posts		7	7	
(Type : **POST STEEL;POST STEEL**)				
Bridge Rail/Posts Coating		7	7	
(Type : **GALVANIZED**)				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last				
Now	0	0	0	0
Girders		4	4	Some drift pin damage. All have flexural, longitudinal and roof cracks. 5 girders with longitudinal cracks in webs- worst is G9 wide cracks in both webs in AZ. Concrete sound. Girders 3,4,5,6,7 have narrow shear cracks.
Last Complete Inspection Date	12-Mar-2012			
Cracking (Y/N)	Yes			
Spalling (Percent Area)	20			
Lift or Connector Pocket Grouted (Y/N)	Yes			
(Number Of Girders : **10**)				
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**4**	**4**	

Substructure					
Bridge Component			**Last**	**Now**	**Explanation of Condition**
Abutments					
(Extended Backwall Piles (Y/N) : **Y**)					
(Extended Backwall Piles Spacing(mm) : **1400**)					
(Total Number of Caps/Corbels : **3:3**)					
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now	0	0	0	0	
Bearing Seats/Caps/Corbels				6	6
(Type : **TREATED TIMBER**)					
(Depth(mm) : **350**)					
(Width(mm) : **300**)					
Backwalls/Breastwalls				7	4	East backwall not low enough at piles 1 to 3.
Greatest Height (m)	2.40				
Wingwalls				7	7	
(Total Number of Bearing Piles : **7:7**)						Pile 5 at West is split but banded.
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now	0	0	0	0	
Piles				6	5
Paint/Coating				X	X	
Abutment Stability				6	6	
Scour/Erosion				7	4	1.0m deep scour under bridge at South.
Piers/Bents					
(Type :)					
(Total Number of Caps/Corbels :)					
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now					
Bearing Seats/Caps/Corbels				X	X
(Type :)					
(Depth(mm) :)					
(Width(mm) :)					
(Total Number of Bearing Piles :)					
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now					
Pier Shaft/Piles				X	X
Greatest Height (m)					
Bracing/Struts/Sheathing				X	X	
Nose Plate				X	X	
Paint/Coating				X	X	
(Colour Description :)					
(Colour Code :)					
Pier Stability				X	X	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**6**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **S**)				
(D/S Direction : **N**)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Curb)	2.0			
Drift (Y/N)	No			
Slope Protection		N	4	Class 2 at all four corners.
(Type : **RIP RAP; RIP RAP**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**4**	1.0 deep scour under bridge.

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
SEAL CURBS						
PATCH DECK						
OVERLAY DECK						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS						
REPAIR/REPLACE TIMBER CAPS						
REPAIR ABUTMENT SCOUR/EROSION	2013	10m3 class 2 under bridge and at piles 1 to 3 at East abut.				
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL STRUTS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/50.0**	**Sufficiency Rating (Last/Now) (%)**	**71.1/67.1**	Est. Repl. Yr	2022	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection		Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy					
On 3-Year Program (Y/N)					
Proposed Action					

Previous Inspector's Name	Tim Davies	Previous Assistant's Name	
Next Inspection Date	12-Jun-2015	Previous Inspection Date	12-Mar-2009
Inspection Cycle (Default) (months)	39		
Comment			