

Bridge Inspection							
Bridge File Number	06842 -1 Bridge			Form Type	PCS		
Year Built/Year Supstr	1963/1963			Lot No.	1		
Bridge or Town Name	BIG VALLEY			Inspector Name	Dave Lam		
Located Over	BIG VALLEY CREEK, 3.61, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	590:04 C1 33.781			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	13-Jul-2011		
Legal Land Location	SE SEC 26 TWP 35 RGE 20 W4M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-112:45:06, 52:01:35			Data Entry Date	15-Aug-2011		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA20			Review Date	27-Jul-2011		
Clear Roadway/Skew	11 /			Dept. Reviewer Name	Chris Black		
AADT/Year	650 / 2010 (A)			Dept. Review Date	30-Aug-2011		
Road Classification	RCU-209-110			Follow-Up By			
Detour Length (km)	3						
Allowable Load (t):	Single	CS1 28 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 65 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	Not required.							
Hazard Marker At Bridge (Y/N)	No							
Remarks	Not required.							
Other Sign Types								

Utilities (Located at)				
Utility Attachments				
Telephone	On S side of bridge.		Gas	20m W of bridge.
Power	3 wire 30m N of c/l.		Municipal	
Others			Problem (Y/N)	Yes
Remarks	Gas Line crosses road 150m W. S side conduit hanging unsupported.			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Grade to East.
Vertical Alignment		6	6	No passing EB due to limited sight distance.
Roadway Width (m)	9.000			Mainly due to bridge setting level & road grade approx. 2%.
Approach Bump		5	5	
Guardrail (Y/N)	Yes			Not attached to bridgerail & not in-line with bridgerail. Lacks 1 post per corner, no TT blocks.
Guardrail		6	4	
Length (m)	30.000			
Current Standard (Y/N)	No			
Termination Type	TURNDOWN			
Drainage		7	7	
<b>Approach Road General Rating</b>		<b>6</b>	<b>6</b>	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : <b>HC, 1 Spans, Lengths(m): 6.1, A-Ident Number: )</b>					
<b>Special Features</b>					
Special Feature			X		
(Type : )					
Special Feature			X		
(Type : )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>					
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface			6	4	Asphalt cracked across roadway at both abuts (photo). 2 long. crack length of bridge (photo). ACP stops 250-300mm short of curb (photo), typical both sides. ACP failed, leaking btwn girders.
(Material Type : <b>ACP</b> )					
(Thickness(mm) : <b>100</b> )					
Lateral Connection Problem (Y/N)		No			
Deck Top			X	X	
Deck Rideability			6	6	
Deck Joints			X	X	Paved over.
Bump (Y/N)					
Deck Drainage			7	7	
Drains Clogged (Y/N)		No			
Curbs/Median			7	6	Random vert. cracks, plow scrapes.
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		0			
Bridge Rail			7	7	Single layer. Missing splice bolts (photo).  Rail galvanized. Posts painted with some rusting. Post coating rates 5.
(Type : <b>GALVANIZED STEEL W-BEAM</b> )					
Bridge Rail Posts			7	7	
(Type : <b>GALVANIZED POST STEEL; GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating			5	7	
(Type : <b>GALVANIZED</b> )					
Sidewalk			X	X	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
<b>Last</b>					
<b>Now</b>	0	0	0	0	
Girders			5	5	Cracks N & S curb, G13 (photo). Leaking btwn girders (photo).  Lift hook not grouted on curb girders (photo).
Last Complete Inspection Date		13-Jul-2011			
Cracking (Y/N)		Yes			
Spalling (Percent Area)		0			
Lift or Connector Pocket Grouted (Y/N)		No			
(Number Of Girders : <b>13</b> )					
<b>Span Alignment Problems</b>					
Vertical (Y/N)		Yes			Bridge should be raised 150mm on E end, would match road grade better.
Horizontal (Y/N)		No			
<b>Superstructure General Rating</b>			<b>5</b>	<b>5</b>	

Substructure						
Bridge Component				Last	Now	Explanation of Condition
<b>Abutments</b>						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1500)						
(Total Number of Caps/Corbels : 3:3)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>						
<b>Now</b>	0	0	0	0		
Bearing Seats/Caps/Corbels				6	6	
(Type : TREATED TIMBER)						
(Depth(mm) : 305)						
(Width(mm) : 305)						
Backwalls/Breastwalls				5	5	
Greatest Height (m)		4.50				
Wingwalls				4	4	Wing on NW corner missing top plank.
(Total Number of Bearing Piles : 11:11)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>						
<b>Now</b>	0	0	0	1		1 row short piles 1.5m up on backwall, these piles have struts pushing on them causing backwall to push in under the rest of the backwall - photo. Piles from old bridge still in place. Last bearing pile NE corner rot & split strut pushing into pile. Other piles OK. A1P11 with wide vert. split - R=4. A2P11 is completely rotten but not required for sharing load, so not critical (photo).
Piles				3	3	
Paint/Coating				X	X	
Abutment Stability				6	6	
Scour/Erosion				N	N	Under water.
<b>Piers/Bents</b>						
(Type : )						
(Total Number of Caps/Corbels : )						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>						
<b>Now</b>						
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)		
<b>Last</b>						
<b>Now</b>						
Pier Shaft/Piles				X	X	
Greatest Height (m)						
Bracing/Struts/Sheathing				6	4	No cleat under struts.
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			
<b>Substructure General Rating</b>		<b>3</b>	<b>3</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel</b>				
(U/S Direction : <b>N</b> )				
(D/S Direction : <b>S</b> )				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Curb)				
Drift (Y/N)	No			
Slope Protection		6	N	(R=6. 19Mar2006). Under water.
(Type : <b>NATURAL; NATURAL</b> )				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>6</b>	<b>6</b>	GR carried forward from 19Mar2005.

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
REPAIR/REPLACE BRIDGE RAIL	2011	Upgrade to meet std at next rehab.								
SEAL CURBS										
PATCH DECK	2011	Grout lift / pockets (curbs).								
OVERLAY DECK										
STRAIGHTEN/REPLACE MEMBERS										
WASHING										
SHOTCRETE REPAIRS										
CORE TIMBER CAPS/CORBELS										
REPAIR/REPLACE TIMBER CAPS										
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP										
REMOVE DRIFT ACCUMULATION										
INSTALL STRUTS	2011	Install cleat & replace old struts at next rehab.								
OTHER ACTION	2011	Replace top wing plank.								
OTHER ACTION	2011	Replace A2P11 at next rehab.								
OTHER ACTION	2011	Upgrade approach guardrail at next rehab.								
OTHER ACTION	2011	Core piles prior to next major rehab.								
OTHER ACTION	2011	Reattach conduit to S exterior girder or run one continuous conduit end to end.								
OTHER ACTION										
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>61.8/61.5</b>	<b>Est. Repl. Yr</b>	<b>2015</b>	<b>Maint. Req. (Y/N)</b>	<b>Yes</b>			
Special Comments for Next Inspection	Inspect on regular 39mth cycle.		Department Comments							
Maintenance Reviewed By		Date	Estimated Total			0				
Proposed Long-Term Strategy	2007.08.16 Project on 2009 program, normal rehab. Bridge should be okay until 2015.									
On 3-Year Program (Y/N)	Y									
Proposed Action	2007.08.16 Project on 2009 normal rehab program.									
Previous Inspector's Name	Randy Bredo	Previous Assistant's Name								
Next Inspection Date	13-Oct-2014	Previous Inspection Date	19-Mar-2005							
Inspection Cycle (Default) (months)	39									
Comment										

**Maintenance Recommendations**

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2011	Upgrade to meet std at next rehab.	Defer until replacement				
SEAL CURBS							
PATCH DECK	2011	Grout lift / pockets (curbs).	Defer until replacement				
OVERLAY DECK							
STRAIGHTEN/REPLACE MEMBERS							
WASHING							
SHOTCRETE REPAIRS							
CORE TIMBER CAPS/CORBELS							
REPAIR/REPLACE TIMBER CAPS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
INSTALL STRUTS	2011	Install cleat & replace old struts at next rehab.	Defer until replacement				
OTHER ACTION	2011	Replace top wing plank.	Defer until replacement				
OTHER ACTION	2011	Replace A2P11 at next rehab.	Defer until replacement				
OTHER ACTION	2011	Upgrade approach guardrail at next rehab.	Defer until replacement				
OTHER ACTION	2011	Core piles prior to next major rehab.	Defer until replacement				
OTHER ACTION	2011	Reattach conduit to S exterior girder or run one continuous conduit end to end.	Defer until replacement				
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>61.8/61.5</b>	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Inspect on regular 39mth cycle.		Department Comments	Coring results 2011: West Abutment Beginning rot in 1 core only of piles 1,2,4,10 and 11. Trace rot in the South half of the top South cap and the majority of the North top cap. No visible bulging or crushing.  East Abutment Subcaps and caps are good. Trace rot in 1 core only pile 8, and pile 11 in the top core.  Recommendation from BVBS: Monitor at regular inspections. Schedule cap replacement in 5 years(2016) or possible bridge replacement due to age.  Tentatively programmed to be replaced in 2017. AS			
Maintenance Reviewed By	Andrew Smikles		Date	22-Aug-2012	Estimated Total	0	

Proposed Long-Term Strategy	2007.08.16 Project on 2009 program, normal rehab. Bridge should be okay until 2015.		
On 3-Year Program (Y/N)	Y		
Proposed Action	2007.08.16 Project on 2009 normal rehab program.		
Previous Inspector's Name	Randy Bredo	Previous Assistant's Name	
Next Inspection Date	13-Oct-2014	Previous Inspection Date	19-Mar-2005
Inspection Cycle (Default) (months)	39		
Comment			