

Bridge Inspection										
Bridge File Number	01546 -1 Bridge				Form Type	PCS				
Year Built/Year Supstr	1973/1973				Lot No.	1				
Bridge or Town Name	USONA				Inspector Name	Owen Salava				
Located Over	BATTLE RIVER, 5, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	611:02 C1 30.291				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	08-Feb-2013				
Legal Land Location	SW SEC 6 TWP 45 RGE 27 W4M				Data Entry By	Marcia Chavez				
Longitude, Latitude	-113:54:47, 52:50:36				Data Entry Date	20-Feb-2013				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien				
Contract Main. Area	CMA17				Review Date	13-Feb-2013				
Clear Roadway/Skew	8.2 / -15 deg. (LHF)				Dept. Reviewer Name	Chris Black				
AADT/Year	360 / 2011 (A)				Dept. Review Date	28-Mar-2013				
Road Classification	RCU-209-110				Follow-Up By					
Detour Length (km)	45									
Allowable Load (t):	Single	CS1 30 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 70 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	Offline & too low.									
Other Sign Types	Creek ID @ NE & SW.									
Utilities (Located at)										
Utility Attachments										
Telephone					Gas					
Power					Municipal					
Others					Problem (Y/N)	No				
Remarks										
Approach Road										
			Last	Now	Explanation of Condition					
Horizontal Alignment			7	7	On S.R. 611 East of S.R. 792. On uphill grade to East, limited sight distance.					
Vertical Alignment			5	5						
Roadway Width (m)	9.400				Slight dip/settlement of East approach caused by loss of abutment fill through backwall, gaps in sheathing.					
Approach Bump			5	5						
Guardrail (Y/N)	Yes				Minor damage to guardrail but functional. Improper splice lap @ NW & SE - photo.					
Guardrail			4	4						
Length (m)	8.000				Requires 3 posts all corners; NW transition torn. Not thrie beam.					
Current Standard (Y/N)	No									
Termination Type	Turn Down									
Drainage			7	7						
Approach Road General Rating			5	5						

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : HC, 3 Spans, Lengths(m): 10.1-10.1-10.1, A-Ident Number:)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
Last					
Now	5.0	0.0	0.0	0.0	
Wearing Surface			X	X	
(Material Type :)					
(Thickness(mm) :)					
Lateral Connection Problem (Y/N)		No			
Deck Top			3	4	Girder edge spalls; deck spalls.
Deck Rideability			5	5	
Deck Joints			4	4	Missing buffer angles in some abutment girder ends.
Bump (Y/N)		No			
Deck Drainage			7	7	Drains between girders.
Drains Clogged (Y/N)		No			
Curbs/Median			6	6	
(Curb Type : Standard)					
Scaling (Percent Area)		0			
Bridge Rail			5	5	Single layer. Tear at 1 post, NW corner, with missing splice bolt.
(Type : GALVANIZED STEEL FLEX BEAM)					
Bridge Rail Posts			6	6	
(Type : GALVANIZED POST STEEL; GALVANIZED 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				24	
Now	0	0	0	25	
Girders			3	3	
Last Complete Inspection Date		08-Feb-2013			
Cracking (Y/N)		Yes		S1G1,6 & S3G5,8 wide AZ cracks in 2 legs.	
Spalling (Percent Area)		30		S2G5 poorly grouted punchouts.	
Lift or Connector Pocket Grouted (Y/N)		Yes		Some girders with underside spalls in channel of girders.	
(Number Of Girders : 30)				Girder edge/end spalls and grout spalls from pockets.	
				AZ spalls S1G2-5,7-9; S2G2-9 & S3G2-4,6-7,9.	
				Connections failed on 8 girders partly due to improper shimming.	
Span Alignment Problems					
Vertical (Y/N)		No		Slightly misaligned to road.	
Horizontal (Y/N)		No		A2 lower than piers, approx. 80mm.	
Superstructure General Rating			3	3	

Substructure						
Bridge Component				Last	Now	Explanation of Condition
Abutments						
(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)		
Last						
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				4	4	Both abut caps rolling - photos. A1, N end, cap has vertical end crack and only 50% bearing (150mm) at P5.
(Type : TREATED TIMBER)						
(Depth(mm) : 350)						
(Width(mm) : 300)						
Backwalls/Breastwalls			3	3	75mm gap between E backwall & girders. Original backwall has wide gaps losing fill causing approach settlement - photo. Backwalls not low enough, losing fill @ A2 - photo.	
Greatest Height (m)		2.20				
Wingwalls			4	4	Anchored with guy wire, piles jacking. SW wing not low enough - photo.	
(Total Number of Bearing Piles : 7:7)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last				3		
Now	0	0	0	3		
Piles			3	3	A1P6 cracked - photo. A1P5 not bearing, approx 50% - photo. A2P7 shimmed, not fully bearing, approx 50% - photo.	
Paint/Coating			X	X		
Abutment Stability			4	4	Rolling caps and leaning piles - photo.	
Scour/Erosion			5	5		
Piers/Bents						
(Type : PIER-COLUMN)						
(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				4	4	Wide check @ South end of W pier cap. South end of East pier cap vertical crack through - photos.
(Type : TREATED TIMBER)						
(Depth(mm) : 300)						
(Width(mm) : 350)						
(Total Number of Bearing Piles : 9:9)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Pier Shaft/Piles			4	4	Multiple piles stained, checked at waterline, suspect condition.	
Greatest Height (m)		6.30				
Bracing/Struts/Sheathing			5	5		
Nose Plate			X	X		

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		6	6	
Scour		5	5	
Debris (Y/N)	Yes			Beaver dam across channel. 5m South of bridge.
Substructure General Rating		3	3	

Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : N)				
(D/S Direction : S)				
Alignment		6	6	
Bank Stability		5	5	Bank erosion U/S & D/S not affecting bridge.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		5	5	
(Type : NATURAL; NATURAL)				
Guidebank/Spurs		X	X	
Adequacy of Opening		5	5	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
REPAIR/REPLACE BRIDGE RAIL										
SEAL CURBS										
PATCH DECK	2013	Patch edge spalls & deck spalls, 0.2m3 NH.								
OVERLAY DECK										
STRAIGHTEN/REPLACE MEMBERS										
WASHING										
SHOTCRETE REPAIRS										
CORE TIMBER CAPS/CORBELS	2013	Core substructure, if not yet done.								
REPAIR/REPLACE TIMBER CAPS	2013	Reset caps on re-aligned abut piles; replace pier caps.								
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP										
REMOVE DRIFT ACCUMULATION										
INSTALL STRUTS										
OTHER ACTION	2013	Assess for replacement or rehab, if not yet done.								
OTHER ACTION	2013	Patch backwall gaps at A2.								
OTHER ACTION	2013	Reset hazard markers to standard.								
OTHER ACTION	2013	Lower wing & backwall sheathing.								
OTHER ACTION	2013	Band split pile or pile stub repair.								
OTHER ACTION	2013	Restore connector pockets & restore grout, or pull piles back & place anchor piles.								
OTHER ACTION	2013	Repair splices at guardrail to bridgerail.								
OTHER ACTION	2013	Replace all girders.								
OTHER ACTION										
Structural Condition Rating (Last/Now)		33.3/33.3	Sufficiency Rating (Last/Now)	55.2/50.8	Est. Repl. Yr	2018	Maint. Req. (Y/N)	Yes		
Special Comments for Next Inspection	Girders in poor shape; bridge has heavy gravel haul active it at this time. If repair is economical, consider tying back rehabilitated abutts to anchor piles. Install new girders plus miscellaneous repairs; assess first.		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	Owen Salava	Previous Assistant's Name								
Next Inspection Date	08-May-2016	Previous Inspection Date	03-Mar-2010							
Inspection Cycle (Default) (months)	39									

Comment

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Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
SEAL CURBS							
PATCH DECK	2013	Patch edge spalls & deck spalls, 0.2m3 NH.	Programmed	2013			
OVERLAY DECK							
STRAIGHTEN/REPLACE MEMBERS							
WASHING							
SHOTCRETE REPAIRS							
CORE TIMBER CAPS/CORBELS	2013	Core substructure, if not yet done.	Completed	2013			
REPAIR/REPLACE TIMBER CAPS	2013	Reset caps on re-aligned abut piles; replace pier caps.	Defered until replacement				
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
INSTALL STRUTS							
OTHER ACTION	2013	Assess for replacement or rehab, if not yet done.	Replacement is scheduled	2014			
OTHER ACTION	2013	Patch backwall gaps at A2.	Programmed	2013			
OTHER ACTION	2013	Reset hazard markers to standard.					
OTHER ACTION	2013	Lower wing & backwall sheathing.					
OTHER ACTION	2013	Band split pile or pile stub repair.	Programmed	2013			
OTHER ACTION	2013	Restore connector pockets & restore grout, or pull piles back & place anchor piles.	Girder repairs programmed	2013			
OTHER ACTION	2013	Repair splices at guardrail to bridgerail.	Programmed	2013			
OTHER ACTION	2013	Replace all girders.	Bridge replacement programmed	2013			
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	55.2/50.8	Est. Repl. Yr	2018	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Girders in poor shape; bridge has heavy gravel haul active it at this time. If repair is economical, consider tying back rehabilitated abuts to anchor piles. Install new girders plus miscellaneous repairs; assess first.		Department Comments	Review of Bridge by TSB & Regional Staff is scheduled for May 2013, and repair strategy will be determined at that time. CB			
Maintenance Reviewed By	Chris Black		Date	30-Apr-2013	Estimated Total	0	
Proposed Long-Term Strategy							

On 3-Year Program (Y/N)			
Proposed Action			
Previous Inspector's Name	Owen Salava	Previous Assistant's Name	
Next Inspection Date	08-May-2016	Previous Inspection Date	03-Mar-2010
Inspection Cycle (Default) (months)	39		
Comment			