

Bridge Inspection							
Bridge File Number	00629 -1 Bridge			Form Type	PCS		
Year Built/Year Supstr	1966/1966			Lot No.	1		
Bridge or Town Name	RED WILLOW			Inspector Name	Todd Warshawski		
Located Over	TRIBUTARY TO REDWILLOW CREEK, 5.31.1.1, WATERCRS-ST			Inspector Class	BR CLS B		
Located On	601:04 C1 8.422			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	11-Mar-2013		
Legal Land Location	SW SEC 18 TWP 40 RGE 17 W4M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-112:26:53, 52:26:03			Data Entry Date	28-Apr-2013		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA20			Review Date	08-Apr-2013		
Clear Roadway/Skew	8.2 / 30 deg. (RHF)			Dept. Reviewer Name			
AADT/Year	140 / 2012 (A)			Dept. Review Date			
Road Classification	RCU-208G-90			Follow-Up By			
Detour Length (km)	13						
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)	Yes						
Remarks	4 corners, 2 loose/leaning. Too high, North sprung.						
Other Sign Types							

Utilities (Located at)			
Utility Attachments			
Telephone	N r/w.		Gas
Power	3 wires 15m South of c/l.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	In slight sag curve; crest 300m to E.
Vertical Alignment		6	6	
Roadway Width (m)	10.000			Minor scrapes @ SW. Improper lap at SE. Loose connections to bridgerail Insufficient length, posts/spacing.
Approach Bump		4	5	
Guardrail (Y/N)	Yes			
Guardrail		5	4	
Length (m)	8.000			Insufficient length, posts/spacing.
Current Standard (Y/N)	No			
Termination Type	Turn Down			
Drainage		5	5	
Approach Road General Rating		6	6	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : HC, 3 Spans, Lengths(m): 6.1-8.5-6.1, A-Ident Number:)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Centre portion visible only.
Last	70	0	0	0	
Now	70.0	0.0	0.0	0.0	
Wearing Surface			X	X	
(Material Type :)					
(Thickness(mm) :)					
Lateral Connection Problem (Y/N)		No			
Deck Top			4	4	(East end with dowel pin projecting from girder top. 11Jul2011).
Deck Rideability			5	5	
Deck Joints			4	4	Buffer angle torn off S2G5 - photo.
Bump (Y/N)		No			
Deck Drainage			4	4	Gravel built up along curbs blocking drains.
Drains Clogged (Y/N)		Yes			
Curbs/Median			6	5	Lift pockets not grouted. Damaged at S1G1 post at SE corner.
(Curb Type : Standard)					
Scaling (Percent Area)		0			
Bridge Rail			4	5	Single layer. Damaged post anchorage S2G1, SE corner. Posts painted with 25% paint failure; post coating rates 4.
(Type : GALVANIZED STEEL FLEX BEAM)					
Bridge Rail Posts			6	4	
(Type : POST STEEL;POST STEEL)					
Bridge Rail/Posts Coating			5	5	
(Type : GALVANIZED)					
Sidewalk			X	X	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	0	
Now	0	0	0	0	
Girders			4	4	Wide longit. crack in/out of AZ on 2 legs, S2G4,9. Spalls within AZ, S2G3,10 & S3G1,7 with sound concrete. Concrete spall with exposed void on deck underside S3G1. Several lift pockets on curbs ungrouted.
Last Complete Inspection Date		11-Mar-2013			
Cracking (Y/N)		Yes			
Spalling (Percent Area)		1			
Lift or Connector Pocket Grouted (Y/N)		No			
(Number Of Girders : 30)					
Span Alignment Problems					
Vertical (Y/N)		No		Girders not centered over pier caps. Gap between center girders. Skew, curbs not lined up well.	
Horizontal (Y/N)		Yes			
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) : 1700)					
(Total Number of Caps/Corbels : 3:3)				(Timber caps replaced Setember 1993. 07Oct2009).	
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	0	
Now	0	0	0	1	
Bearing Seats/Caps/Corbels				7	3
(Type : TREATED TIMBER)					
(Depth(mm) : 350)					
(Width(mm) : 300)					
Backwalls/Breastwalls				4	5
Greatest Height (m)		2.50			
Wingwalls				6	6
(Total Number of Bearing Piles : 6:6)					
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	0	
Now	0	0	0	1	
Piles				5	3
A1P6 minor split. A2P1 rot with small voids/minor split. A2P2 pile movement, 1/3 of cap. A2P6 minor split.					
Paint/Coating				X	X
Abutment Stability				5	4
Fill spilling behind abutment 1 cap @ NW corner. Also see pile condition.					
Scour/Erosion				6	6
Piers/Bents					
(Type : PIER-COLUMN)					
(Total Number of Caps/Corbels : 3:5)					
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	4	
Now	0	0	0	0	
Bearing Seats/Caps/Corbels				3	5
(Type : TREATED TIMBER)					
(Depth(mm) : 350)					
(Width(mm) : 300)					
(Total Number of Bearing Piles : 8:9)					
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	0	
Now	0	0	0	1	
Pier Shaft/Piles				4	3
Greatest Height (m)		4.00			
P1P1,7 & P2P1 split & banded. P1P3 rot with small voids. P2P2 pile movement - less than 1/3 cap. P2P3 minor split.					
Bracing/Struts/Sheathing				4	4
4 split braces.					
Nose Plate				X	X

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		3	5	Timber scabs added.
Scour		6	6	
Debris (Y/N)	Yes			Tractor debris S of bridge in channel.
Substructure General Rating		3	3	

Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				
(D/S Direction : N)				
Alignment		6	6	
Bank Stability		6	6	
HWM (m below Top of Curb)				HWM unknown. (Log & sheathing at S channel. 11Jul2011).
Drift (Y/N)	Yes			
Slope Protection		5	5	Class II used to restore scoured headslope.
(Type : RIP RAP; RIP RAP)				
Guidebank/Spurs		X	X	
Adequacy of Opening		6	6	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Relap & tighten bolts.					
SEAL CURBS							
PATCH DECK	2013	Patch deck @ S2G5 East.					
OVERLAY DECK							
STRAIGHTEN/REPLACE MEMBERS							
WASHING	2013	Clean bridge; remove windrows.					
SHOTCRETE REPAIRS							
CORE TIMBER CAPS/CORBELS							
REPAIR/REPLACE TIMBER CAPS	2013	Replace 1 subcap.					
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
INSTALL STRUTS							
OTHER ACTION	2013	Treat & band 6 piles.					
OTHER ACTION	2013	Patch post anchorage.					
OTHER ACTION	2013	Post 1 - pier pile.					
OTHER ACTION	2013	Replace 4 sway braces.					
OTHER ACTION	2013	Grout curb lift pockets.					
OTHER ACTION	2013	Reset HMs.					
OTHER ACTION							
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Structural Condition Rating (Last/Now) (%)	38.9/38.9	Sufficiency Rating (Last/Now) (%)	56.0/56.7	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor pier rotation & span misalignment. Assessment being completed in 2013; hold-off on all repairs until report completion.		Department Comments	Tentatively programmed to be replaced in 2022. AS			
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	Pile rehab completed in 2007. Continue maintenance as required. Bridge should be ok until 2016. RS						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Dave Lam		Previous Assistant's Name				

Next Inspection Date	11-Jun-2016	Previous Inspection Date	11-Jul-2011
Inspection Cycle (Default) (months)	39		
Comment			