

Bridge Inspection							
Bridge File Number	73919 E-1 Bridge			Form Type	SG		
Year Built/Year Supstr	1955/1955			Lot No.	2		
Bridge or Town Name	SANGUDO			Inspector Name	Kris Bosters		
Located Over	PEMBINA RIVER, 8.11.84, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	43:18 R1 17.353			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	03-Oct-2011		
Legal Land Location	SE SEC 1 TWP 57 RGE 7 W5M			Data Entry By	Theresa Lacusta		
Longitude, Latitude	-114:53:59, 53:53:37			Data Entry Date	25-Oct-2011		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	Eric Carcoux		
Contract Main. Area	CMA12			Review Date	22-Oct-2011		
Clear Roadway/Skew	9.5 /			Dept. Reviewer Name	Brent Herrick		
AADT/Year	6,860 / 2010 (A)			Dept. Review Date	26-Oct-2011		
Road Classification	RAD-412.4-120			Follow-Up By			
Detour Length (km)	1						
Allowable Load (t):	Single	CS1 44 GIRDER	Semi	CS2 69 GIRDER	Train	CS3 84 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)		In Advance (Y/N)		At Bridge (Y/N)	
Remarks	Not required.							
Hazard Marker At Bridge (Y/N)	No							
Remarks	North only.							
Other Sign Types	Curve, Hill, Narrow Bridge.							

Utilities (Located at)			
Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone	South r/w.	Gas	
Power	North r/w 150m.	Municipal	
Others	Fibre optics South r/w.	Problem (Y/N)	No
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	West approach turned down, East approach bulb.
Vertical Alignment		7	7	
Roadway Width (m)	10.500			
Approach Bump		7	7	
Guardrail (Y/N)	Yes			
Guardrail		7	7	
Length (m)	99.000			
Current Standard (Y/N)	Yes			
Termination Type	Turned Down			
Drainage		7	7	
Approach Road General Rating		7	6	

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : RB, 6 Spans, Lengths(m): 12.2-25-31.1-31.1-25-12.2, A-Ident Number: A0220-01;A0220-02;A0220-06)						
Special Features						
Special Feature			X			
(Type :)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last	5	0	0	0		
Now						
Wearing Surface			9	6	Moderate scaling at SW and along curb. Random narrow transverse cracks.	
(Material Type :)						
(Thickness(mm) :)						
Deck Top			N	N		
Deck Rideability			8	8		
Deck Joints			8	8	Exp @ A2,P5,P1,A1	
Temperature (deg. C)		11				
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
72		East abutment - A2				
90		Pier 5 - P5				
70		Pier 1 - P1				
74		West abutment - A1				
Deck Drainage			8	8	Erosion gully at East headslope, rock basin installed.	
Drains Clogged (Y/N)		No				
Curbs/Median			7	7		
(Curb Type : Standard)						
Scaling (Percent Area)		0				
Bridge Rail			8	8	Grout pad cracked, anchor bolt insuff thread. North top rails - scrapes, peeled coating span 4.	
(Type : GALVANIZED STEEL BRIDGE TUBE)						
Bridge Rail Posts			7	7		
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)						
Bridge Rail/Posts Coating			7	7		
(Type : GALVANIZED)						
Sidewalk			X	X		
Girder/Beam						
Cover Plate			6	6	4 girders @ each S1 & S5. 5 girders @ each S2, S3 & S4.	
Flange			7	7		
Web			7	7		
Stiffeners			5	5		
Splice			7	7		
Weld			5	5		
Diaphragms/Cross Frame			5	5	Fatigue cracks repaired.	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : RB, 6 Spans, Lengths(m): 12.2-25-31.1-31.1-25-12.2, A-Ident Number: A0220-01;A0220-02;A0220-06)				
Paint Condition		7	7	Green. Painted 2002.
(Colour Description :)				
(Colour Code :)				
Touchup Required (Y/N)	No			
Bearings		4	4	Loose A/B nuts pier 5. 1 missing nut @ P5. Several A/B bent PS. Missing anchor bolt nut at about 1 Pier 1 span 1 has neoprene bearings, pier pedestals reinf. Pier 5 bearings not true, functioning.
Temperature (deg. C)	11			
(Expansion Type : PINNED BEARING)				
(Fixed Type : ROCKER BEARING)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		4	4	Some transverse cracking with efflorescence, stained. Numerous patched areas. New spalls forming at a few locations.
Stains (Percent Area)	3			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		5	4	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		5	5	
(Type : CONCRETE)				
Backwalls/Breastwalls		5	5	Old stains & scaling from past joint leakage.
Wingwalls		5	5	
Piles		N	5	
Paint/Coating		X	X	
Abutment Stability		5	5	
Scour/Erosion		5	4	400mm deep x 10m long erosion gully @ East headslope.
Piers/Bents				
(Type : PIER-SOLID)				Scaling, light spalls at P5. P1 spalling patched, P1 bearing pedestals reinf.
Bearing Seats/Caps		5	5	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0:0:0:0)				P3 medium vertical crack full height near centerline. Missing section of nose plate at P3, spalling.
Pier Shaft/Piles		4	6	
Bracing/Struts/Sheathing		X	X	
Nose Plate		4	4	Missing nose plate P3 at waterline and abraded concrete below upper plate. Rusting of nose plates.
Paint/Coating		4	4	No paint. Nose plates have scaling rust.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	Yes			Few logs on Pier 3.

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Substructure General Rating		4	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				
(D/S Direction : N)				
Alignment		7	7	
Bank Stability		4	4	Sloughing of East bank U/S and sloughing at piers.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			
Slope Protection		4	4	Cut banks U/S & D/S. Erosion gully down East headslope.
(Type : NONE; NONE)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
GALVANIZE/PAINT BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS							
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2011	Install new nose plate at P3.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	50.0/50.0	Sufficiency Rating (Last/Now) (%)	56.9/56.2	Est. Repl. Yr	2030	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor for fatigue cracks at scheduled level II.		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	Ed Kowal		Previous Assistant's Name				
Next Inspection Date	03-Jul-2013		Previous Inspection Date	27-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							