

Bridge Inspection										
Bridge File Number	75522 -1 Bridge					Form Type	SG			
Year Built/Year Supstr	1963/1963					Lot No.	2			
Bridge or Town Name	LEDUC					Inspector Name	Wade Nanninga			
Located Over	2:30 L1 33.846;2:30 R1 33.844					Inspector Class	BR CLS A			
Located On	2A:27 L1 2.665;2A:27 R1 2.691					Assistant Name				
Water Body Cl./Year						Assistant Class				
Navigabil. Cl./Year						Inspection Date	25-Apr-2013			
Legal Land Location	SE SEC 27 TWP 49 RGE 25 W4M					Data Entry By	Lisa Fairhurst			
Longitude, Latitude	-113:33:44, 53:15:09					Data Entry Date	03-May-2013			
Road Authority	Alberta Transportation (AIT)					Reviewer Name	Eric Carcoux			
Contract Main. Area	CMA11					Review Date	01-May-2013			
Clear Roadway/Skew	14.6 /					Dept. Reviewer Name				
AADT/Year	2,000 / 2013 (E)					Dept. Review Date				
Road Classification	RAU-213.4-120					Follow-Up By				
Detour Length (km)	5									
Allowable Load (t):	Single	CS1 58 GIRDER			Semi	CS2 83 GIRDER		Train	CS3 91 GIRDER	----> On Critical Spans ---->Critical Member
Design Loading:	HS20									----> Primary Span

Posting Information												
Required Vert. Clearance Posting (m)		UNDER: 2 L1 5.0m, 2 R1 5.0m										
Posted Vertical Clearance (Y/N)		Yes										
Posted:	Lane	NB	On Bridge (m)	5.0	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	5.1	In Advance (Y/N)	Yes
Remarks												
Required Load Posting (t)		Single				Semi				Truck Train		
Posted Loading (t)		Single				Semi				Truck Train		
Posted:	Lane	NB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No	At Bridge (Y/N)	No		
Posted:	Lane	SB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No	At Bridge (Y/N)	No		
Remarks		Not required.										
Hazard Marker At Bridge (Y/N)		No										
Remarks												
Other Sign Types		Information, warning reduce bridge clearance.										

Utilities (Located at)			
Utility Attachments	POWER UTILITIES-POWER LINE		
Telephone	C.S.W.		Gas
Power	On east side.		Municipal
Others	Light standards.		Problem (Y/N) Yes
Remarks	Telus utility box is open.		

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Approach roads are on/off ramps, tight curves. Limited sight distances.
Vertical Alignment		6	6	
Roadway Width (m)	14.600			Not thrie beam Not fleat
Approach Bump		7	7	
Guardrail (Y/N)	Yes			
Guardrail		6	6	
Length (m)	99.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		3	3	Approach & deck drainage eroding along wingwalls all 4 corners and running under headslope. -photo Erosion left 300mm void at NE & SE corners below approach slab.
Approach Road General Rating		5	5	

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : RB, 4 Spans, Lengths(m): 12.5-21.3-21.3-12.5, A-Ident Number: A0424-01)						
Special Features						
Special Feature		7	N	Refer to Levelll girder report for details related to coverplates. Advance High Load Warning. Cameras mounted on South end of P3 & North end of P1.		
(SType : CATH PROTECTION)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last						
Now	0.0	0.0	0.0	0.0		
Wearing Surface			5	5	Approx 1% worn off.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)						
(Thickness(mm) : 50)						
Deck Top			N	N		
Deck Rideability			7	7		
Deck Joints			7	7		
Temperature (deg. C)		20				
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
57			West abutment			
51			East abutment			
Deck Drainage			4	4	Deck spall pier cap below pier 2 joint. (Bird bath @ 8th post from SE parapet. Bird bath on North side @ mid span of bridge.-photo Bird baths not affecting driving lanes - Jul/2011)	
Drains Clogged (Y/N)		No				
Curbs/Median			4	4	Wide vertical cracking on curbs. Scaling and cracking along undersides.	
(Curb Type : Standard)						
Scaling (Percent Area)		5				
Bridge Rail			4	6	Anchor bolt broken off 3rd post from NE. Spall at SE parapet affects rail connection.	
(Type : GALVANIZED STEEL VERTICAL BAR)						
Bridge Rail Posts		3	3			
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)						
Bridge Rail/Posts Coating		7	7			
(Type : GALVANIZED)						
Sidewalk			X	X		
Girder/Beam						
Cover Plate		3	N	High load scrapes minor @ span #3 & 2. (There are a total of 14 coverplate cracks that are not terminated and may grow. They are all well marked - Jul/2011)		
Flange		3	4			
Web		3	5			
Stiffeners		X	X			
Splice		6	6			
Weld		3	5	H.L.D @ S2G8 over S.B.L, bottom flange pushed in approx. 25mm.-photos Diaphragm gusset plates weld in vicinity of H.L.D not inspectable.		

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : RB, 4 Spans, Lengths(m): 12.5-21.3-21.3-12.5, A-Ident Number: A0424-01)					
Diaphragms/Cross Frame		3	N	(H.L.D has bent 2 diaphragm gusset plates on either side of hit.- photo - Jul/2011)	
Paint Condition		4	4	Corrosion with some pitting @ abutments @ ends and top of bottom flange of outside girders.	
(Colour Description : BLUE)					
(Colour Code : 15182)					
Touchup Required (Y/N)	No				
Bearings		4	4	40% corrosion pitting. 5 anchor bolts missing from bearings @ West abutment. All other abutment anchor bolts out of plumb.	
Temperature (deg. C)	20				
(Expansion Type : SLIDING PLATE)					
(Fixed Type : PINNED BEARING)					
Coating Adequate (Y/N)	No				
Functioning (Y/N)	Yes				
Deck Underside		4	4	Transverse cracking with efflorescence approx every 3m, 5-6 spalls per span. Some delaminations have corrosion spalls.	
Stains (Percent Area)	5				
Span Alignment Problems					
Vertical (Y/N)	No				
Horizontal (Y/N)	No				
Superstructure General Rating		3	3	GR carried forward from July 2011	
Substructure					
Bridge Component		Last	Now	Explanation of Condition	
Abutments					
Bearing Seats/Caps		6	6	Random med. cracking @ both abutments.	
(Type : CONCRETE)					
Backwalls/Breastwalls		5	5	Random wide cracking with efflorescence at both abutments.	
Wingwalls		4	4	Wide crack NE, SE parapet spalled.	
Piles		N	N		
Paint/Coating		6	6		
Abutment Stability		5	6		
Scour/Erosion		7	4	Headslope protection undermined.	
Piers/Bents					
(Type : PIER-COLUMN)				Wide vertical crack @ South end of P1. Narrow cracks both ends P2.	
Bearing Seats/Caps		5	5		
(Type : CONCRETE)					
(Total Number of Bearing Piles : 0:0:0)					
Pier Shaft/Piles		5	5		
Bracing/Struts/Sheathing		X	X		
Nose Plate		X	X		
Paint/Coating		6	6	Type 3 pigmented sealer.	
(Colour Description :)					
(Colour Code :)					
Pier Stability		7	7		
Scour		X	X		

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Debris (Y/N)	No			
Substructure General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		8	8	
Traffic Safety Features		4	6	
Type	Guardrail			
Slope Protection		4	4	East headslope undermined from deck drainage - photo.
(Type : CONCRETE; CONCRETE)				
Bank Stability		5	5	
Drainage		5	5	
Grade Separation General Rating		4	5	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Replace anchor bolt and rail bolt.					
GALVANIZE/PAINT BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS	2013	Reset and paint.					
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Repair erosion @ corners & install drain troughs at corners.					
OTHER ACTION	2013	Notify Telus of open box.					
OTHER ACTION	2013	Repair 17 cracks in coverplates - if not done.					
OTHER ACTION	2013	Inspect HLD @ next scheduled Level 2.					
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	63.4/59.4	Est. Repl. Yr	2029	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor HLD. AT to confirm if coverplates were repaired.		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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	25-Jan-2015		Previous Inspection Date	14-Jul-2011			
Inspection Cycle (Default) (months)	21						
Comment							