

Bridge Culvert Inspection				
Bridge File Number	76423 -1 Bridge Culvert		Form Type	CUL1
Year Built	1967		Lot No.	2
Bridge or Town Name	EDMONTON		Inspector Name	Wade Nanninga
Located Over	GOLD BAR CREEK, 6.80, WATERCRS-ST		Inspector Class	BR CLS A
Located On	SHERWOOD PARK FREEWAY:02 R1 0.368;SHERWOOD PARK FREEWAY:02 L1 0.366		Assistant Name	
			Assistant Class	
Water Body Cl./Year			Inspection Date	14-Jan-2013
Navigabil. Cl./Year			Data Entry By	Lisa Fairhurst
Legal Land Location	SW SEC 30 TWP 52 RGE 23 W4M		Data Entry Date	26-Mar-2013
Longitude, Latitude	-113:23:18, 53:31:02		Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)		Review Date	25-Mar-2013
Contract Main. Area	ANTHONY HENDAY DRIVE		Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	35.5 / 25 deg. (RHF)		Dept. Review Date	02-Apr-2013
AADT/Year	33,860 / 2011 (A)		Follow-Up By	
Road Classification	RAD-412.4-120			
Detour Length (km)	3			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	1724	1901	SPE	135.3	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others	Street lights.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Site located just West of BF 76093. On crest curve. Typical grade separation. 4 lane freeway, accel & decel lane over pipe.
Vertical Alignment	7	7	
Roadway Width (m)	25.000		
Embankment	5	5	
Sideslope (___:1)	3.0		
(Height of Cover(m) : 7.3)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	S		
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls	X	X	
(Shape :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		N	3	Rotated 1/8 of turn. Perforations in floor 100mm x 100mm - photo.
Heaving (mm)	2000			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	2000			
Scour Protection		N	3	Scour around pipe.
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	3	Scoured 5m on East side and 3m on West side, 0.5m to 1m wide and up to 1.4m deep - photo. Scour hole in West ditch 5m x 3m x 1m deep.
Beavers (Y/N)	No			
Upstream End General Rating		3	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Barrel Last Accessible Date	14-Jan-2013			Barrel 1/3 full of ice.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	4	Holes in roof at c/l, 150 x 150 ring #16 estimated
Measured Rise (mm)	1800			
Measured At Ring No.				R1 dented/twisted
Sag (mm)	101			
Percent Sag	4			
Sidewall		7	3	
Measured Span (mm)	1950			
Measured At Ring No.	1			
Deflection (mm)	226			
Percent Deflection	13			
Floor		N	3	Extensive perforation and piping ring #1 and U/S bevel - photos.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	7	
Separation (mm)	0			
Longitudinal Seams		7	7	Over torqued bolt ring #16.
Total No. of Cracked Rings	0			1N.
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	3	Pitting rust on floor, 0.8m wide perforations on floor of ring 1 and U/S bevel - photos.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	4	Heaving bevels
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	4	(Iced to 50% of opening @ outlet. 96/02/26) Entering pipe through perforations
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	4	
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	4	10m long, 2m wide scour hole. Est 1.2 m deep.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		5	5	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(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 #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2013	Riprap U/S scour, 20m3 approx.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS	2013	Replace ring 1 & 2 U/S and bevel end .					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/33.3	Sufficiency Rating (Last/Now) (%)	33.4/25.8	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			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	Wade Nanninga		Previous Assistant's Name				
Next Inspection Date	14-Oct-2017		Previous Inspection Date	07-Mar-2011			
Inspection Cycle (Default) (months)	57						
Comment							