

| Bridge Inspection | | | | | | | |
|------------------------|------------------------------|-------------|------|---------------------|--------------------|-------------|---|
| Bridge File Number | 75118 -1 Bridge | | | Form Type | CON | | |
| Year Built/Year Supstr | 1959/1959 | | | Lot No. | 1 | | |
| Bridge or Town Name | ATHABASCA | | | Inspector Name | Eric Carcoux | | |
| Located Over | 813:02 R1 0.000 | | | Inspector Class | BR CLS A | | |
| Located On | 55:10 C1 0.702 | | | Assistant Name | | | |
| Water Body Cl./Year | | | | Assistant Class | | | |
| Navigabil. Cl./Year | | | | Inspection Date | 13-Apr-2012 | | |
| Legal Land Location | SW SEC 21 TWP 66 RGE 22 W4M | | | Data Entry By | Theresa Lacusta | | |
| Longitude, Latitude | -113:16:30, 54:43:19 | | | Data Entry Date | 30-Apr-2012 | | |
| Road Authority | Alberta Transportation (AIT) | | | Reviewer Name | Arnold Assenheimer | | |
| Contract Main. Area | CMA10 | | | Review Date | 30-Apr-2012 | | |
| Clear Roadway/Skew | 9.1 / -29 deg. (LHF) | | | Dept. Reviewer Name | Brent Herrick | | |
| AADT/Year | 9,100 / 2011 (A) | | | Dept. Review Date | 04-May-2012 | | |
| Road Classification | RAU-211.8-110 | | | Follow-Up By | | | |
| Detour Length (km) | 5 | | | | | | |
| Allowable Load (t): | Single | CS1 31 DECK | Semi | CS2 56 DECK | Train | CS3 79 DECK | ----> On Critical Spans ---->Critical Member |
| Design Loading: | HS20 | | | | ----> Primary Span | | |

| Posting Information | | | | | | | | | | |
|--------------------------------------|------|--|-------------------|------|------------------|-------------|-----------------|----|---------------|------------------|
| Required Vert. Clearance Posting (m) | | UNDER: 813 R1 4.0m | | | | | | | | |
| Posted Vertical Clearance (Y/N) | | Yes | | | | | | | | |
| Posted: | Lane | NB | On Bridge (m) | 3.9 | In Advance (Y/N) | Yes | Lane | SB | On Bridge (m) | In Advance (Y/N) |
| Remarks | | One way traffic. Signs and required don't match. | | | | | | | | |
| 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) | | No | | | | | | | | |
| Remarks | | Not required. | | | | | | | | |
| Other Sign Types | | Information, Warning. | | | | | | | | |

| Utilities (Located at) | | | | |
|------------------------|---------------------------------------|--|---------------|--|
| Utility Attachments | | | | |
| Telephone | North. | | Gas | |
| Power | 4 wires 20m North, street lighting. | | Municipal | Street lighting @ each end, water 50m N. |
| Others | Power line diagona pver bridge NE-SW. | | Problem (Y/N) | No |
| Remarks | | Geodetic BM @ SE corner #67A 1366. Slope indicators North & South of bridge. | | |

| Approach Road | | | | |
|-------------------------------------|--------|----------|----------|--|
| | | Last | Now | Explanation of Condition |
| Horizontal Alignment | | 5 | 5 | Curve to east. 50 kph urban section. |
| Vertical Alignment | | 6 | 6 | Fairly steep grade, rising to east. |
| Roadway Width (m) | 10.000 | | | |
| Approach Bump | | 6 | 6 | |
| Guardrail (Y/N) | | Yes | | |
| Guardrail | | 4 | 3 | Insufficient length/post spacing. 7.6m TD @ NW; 32.0m TD @ SW, both attached to parapet. Flared terminal end @ NE & SE, 15.4m each corner. Not attached to parapet. |
| Length (m) | | 7.600 | | |
| Current Standard (Y/N) | | No | | |
| Termination Type | | Terminal | | |
| Drainage | | 3 | 3 | Drain trough @ SW cracked and broken, exposing rebar.-photo |
| Approach Road General Rating | | 5 | 5 | |

| Superstructure | | | | | |
|---|-------|---------------|-------|--|--|
| Bridge Component | | Last | Now | Explanation of Condition | |
| (Primary Span : CS, 3 Spans, Lengths(m): 11-11-11, A-Ident Number:) | | | | | |
| Special Features | | | | | |
| Special Feature | | N | N | (Under road.) | |
| (Type : LONGIT TIMB STRUT) | | | | | |
| Special Feature | | | X | | |
| (Type :) | | | | | |
| Wearing Surface/Deck Top Detail Ratings | | | | | |
| | N (%) | 1 (%) | 2 (%) | 3 (%) | |
| Last | | | | | |
| Now | | | | | |
| Wearing Surface | | 6 | 6 | Map cracking | |
| (Material Type : ACP - CONVENTIONAL CHIP SEAL COAT) | | | | | |
| (Thickness(mm) : 50) | | | | | |
| Deck Top | | N | N | | |
| Deck Rideability | | 6 | 6 | | |
| Deck Joints | | 3 | 3 | Jammed tight. Filled with tar & dirt. East abutment joint gouged & lifted slightly, joint uneven - photos. Sections of steel angle missing. | |
| Temperature (deg. C) | | 3 | | | |
| (Expansion Type :) | | | | | |
| (Fixed Type : BUFFER ANGLES) | | | | | |
| Gap Size (mm) | | Gap Location | | | |
| 25 | | East abutment | | | |
| 0 | | West abutment | | | |
| Deck Drainage | | 4 | 4 | Leaking through deck causing staining and cracking at deck underside. | |
| Drains Clogged (Y/N) | | | | | |
| Curbs/Median | | 3 | 3 | Medium scale on South curb face. North curb face losing section in several spots, delam cracks. Curb at SW & SE parapet severely scaled parapets, outside of curb units damaged by salt. Curb tops covered by gravel. | |
| (Curb Type : Standard) | | | | | |
| Scaling (Percent Area) | | 30 | | | |
| Bridge Rail | | 5 | 5 | Steel channel type. Rail is wavy due to movement of the structure. Missing nut on one post A/B in North rail. Spalled South curb under 1 post compromised anchor integrity - photo. 70% rusted, no pitting, paint flaking. | |
| (Type : GALVANIZED STEEL NON-STANDARD RAIL) | | | | | |
| Bridge Rail Posts | | 3 | 3 | | |
| (Type : GALVANIZED POST STEEL; GALVANIZED POST STEEL) | | | | | |
| Bridge Rail/Posts Coating | | 4 | 4 | | |
| (Type : PAINT) | | | | | |
| Sidewalk | | X | X | | |
| Girders | | X | X | | |
| Diaphragms/Cross Frame | | X | X | | |
| Bearings | | 4 | 4 | Superstructure cast onto piers cracked due to pier movement, typical at both piers - photo. Spalled deck U/S @ SE abutment corner affecting bearing surface area - photo. | |
| Temperature (deg. C) | | 3 | | | |
| (Expansion Type :) | | | | | |
| (Fixed Type :) | | | | | |
| Coating Adequate (Y/N) | | | | | |
| Functioning (Y/N) | | | | | |
| Deck Underside | | 3 | 3 | High load damage to bottom corner of South side. Diagonal crack on all 3 spans. Spall South edge of West span. Staining at cracks. | |
| Stains (Percent Area) | | 20 | | | |

| Superstructure | | | | |
|---|------|----------|----------|--|
| Bridge Component | | Last | Now | Explanation of Condition |
| (Primary Span : CS, 3 Spans, Lengths(m): 11-11-11, A-Ident Number:) | | | | |
| Span Alignment Problems | | | | |
| Vertical (Y/N) | Yes | | | Appears to be twisting due to skew. Wavy due to pier movements(unstable banks of Athabasca River Valley.) |
| Horizontal (Y/N) | Yes | | | |
| Superstructure General Rating | | 3 | 3 | |
| Substructure | | | | |
| Bridge Component | | Last | Now | Explanation of Condition |
| Abutments | | | | |
| Bearing Seats | | 4 | 4 | A1 has 1.5 x 0.2m spall near cl. |
| Backwalls/Breastwalls | | X | X | |
| Wingwalls | | 4 | 4 | Medium scaling on wingwalls. |
| Piles | | N | N | |
| Paint/Coating | | X | X | |
| Abutment Stability | | 4 | 4 | Concrete slope protection cracking @ A1 & A2. |
| Scour/Erosion | | X | X | |
| Piers/Bents | | | | |
| (Type : PIER-COLUMN) | | | | West pier has 1.5mx0.2m spall. Wide diagonal cracks at ends - photo. |
| Bearing Seats/Caps | | 4 | 4 | |
| (Type : CONCRETE) | | | | Narrow diagonal cracking on caps.-photo |
| Pier Shaft/Piles | | 4 | 4 | |
| Nose Plate | | X | X | |
| Paint/Coating | | X | X | Grafitti on piers. |
| (Colour Description :) | | | | |
| (Colour Code :) | | | | |
| Pier Stability | | 3 | 3 | Movements causing cracking. 25mm gap forming between top of cap at pier 2 and deck underside, transverse cracking in face of P2 suggests pier is bending. |
| Scour | | X | X | |
| Debris (Y/N) | No | | | |
| Substructure General Rating | | 3 | 3 | |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Grade Separation | | | | |
| Road Alignment | | 5 | 5 | Sharp curve to South, poor sight distance. 50 kph urban section.-one way traffic. |
| Traffic Safety Features | | X | X | |
| Type | None | | | |
| Slope Protection | | 4 | 4 | Cracking in concrete slope protection. |
| (Type : CONCRETE; CONCRETE) | | | | |
| Bank Stability | | 4 | 4 | Both slope protection crushing against piers. Banks movement causing distress in structure - photo. |
| Drainage | | 5 | 5 | Drain troughs filled with sand & gravel. |

| Structure Usage | | | | |
|--|--|-------------|------------|---------------------------------|
| | | Last | Now | Explanation of Condition |
| Grade Separation 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 | | | | | | | |
| WASHING | | | | | | | |
| SHOTCRETE REPAIRS | | | | | | | |
| REPAIR ABUTMENT SCOUR/EROSION | | | | | | | |
| PLACE ADDITIONAL RIP RAP | | | | | | | |
| REMOVE DRIFT ACCUMULATION | | | | | | | |
| OTHER ACTION | 2012 | Revise inspection schedule to 12 month cycle. | | | | | |
| OTHER ACTION | 2012 | Remove concrete headslope protection for 150mm from pier (to relieve pressure) | | | | | |
| OTHER ACTION | 2012 | Confirm schedule for replacement and/or assess bridge for proper repair strategy. (If not done) | | | | | |
| OTHER ACTION | | | | | | | |
| Structural Condition Rating (Last/Now) (%) | 33.3/33.3 | Sufficiency Rating (Last/Now) (%) | 35.2/31.3 | Est. Repl. Yr | 2014 | Maint. Req. (Y/N) | Yes |
| Special Comments for Next Inspection | Monitor movements(see report on file 95/02/08). Monitor all repairs until bridge is replaced. No file tags. Bridge was scheduled for replacement in 2006. If not scheduled for replacement within 2 years then review strategies for the structure.-28-Nov-2006. Continue to inspect @ current 21 month cycle until repaired/replaced, unless condition worsens. Monitor for erosion at SW drain trough. | | 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 | Eric Carcoux | | Previous Assistant's Name | | | | |
| Next Inspection Date | 13-Jan-2014 | | Previous Inspection Date | 01-Jun-2010 | | | |
| Inspection Cycle (Default) (months) | 21 | | | | | | |
| Comment | | | | | | | |