

| Bridge Inspection | | | | | | | | | | |
|------------------------|-----------------------------------|--------|------|--------|---------------------|----------------|---|--|--|--|
| Bridge File Number | 08414 -1 Bridge | | | | Form Type | PCS | | | | |
| Year Built/Year Supstr | 1956/1988 | | | | Lot No. | 1 | | | | |
| Bridge or Town Name | PENHOLD | | | | Inspector Name | Owen Salava | | | | |
| Located Over | WASKASOO CREEK, 3.81, WATERCRS-ST | | | | Inspector Class | BR CLS A | | | | |
| Located On | 42:08 C1 1.187 | | | | Assistant Name | | | | | |
| Water Body Cl./Year | | | | | Assistant Class | | | | | |
| Navigabil. Cl./Year | | | | | Inspection Date | 26-Nov-2012 | | | | |
| Legal Land Location | SW SEC 6 TWP 37 RGE 27 W4M | | | | Data Entry By | Marcia Chavez | | | | |
| Longitude, Latitude | -113:51:18, 52:08:35 | | | | Data Entry Date | 06-Dec-2012 | | | | |
| Road Authority | Alberta Transportation (AIT) | | | | Reviewer Name | John O'Brien | | | | |
| Contract Main. Area | CMA19 | | | | Review Date | 04-Dec-2012 | | | | |
| Clear Roadway/Skew | 11.9 / | | | | Dept. Reviewer Name | Andrew Smikles | | | | |
| AADT/Year | 1,330 / 2011 (A) | | | | Dept. Review Date | 10-Dec-2012 | | | | |
| Road Classification | RAU-211.8-110 | | | | Follow-Up By | | | | | |
| Detour Length (km) | 6 | | | | | | | | | |
| Allowable Load (t): | Single | CS1 28 | Semi | CS2 49 | Train | CS3 62 | ---> On Critical Spans --->Critical Member | | | |
| Design Loading: | MS225 | | | | | | ---> 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) | In Advance (Y/N) | At Bridge (Y/N) | | | | |
| Posted: | Lane | WB | At Junction (Y/N) | In Advance (Y/N) | At Bridge (Y/N) | | | | |
| Remarks | | | | | | | | | |
| Hazard Marker At Bridge (Y/N) | No | | | | | | | | |
| Remarks | Not required. | | | | | | | | |
| Other Sign Types | | | | | | | | | |

| Utilities (Located at) | | | | | | | | | | |
|------------------------|---|--|--|--|---------------|-----|--|--|--|--|
| Utility Attachments | TELEPHONE UTILITIES-PHONE LINE | | | | | | | | | |
| Telephone | | | | | Gas | | | | | |
| Power | | | | | Municipal | | | | | |
| Others | | | | | Problem (Y/N) | Yes | | | | |
| Remarks | Telus line hanging with broken conduit. | | | | | | | | | |

| Approach Road | | | | | | | | | |
|-------------------------------------|------------------|----------|--|----------------------------|--|--|--|--|--|
| | | Last | Now | Explanation of Condition | | | | | |
| Horizontal Alignment | | 9 | 9 | HWY2A intersection 300m W. | | | | | |
| Vertical Alignment | | 9 | 9 | | | | | | |
| Roadway Width (m) | 11.000 | | A1 has pothole. | | | | | | |
| Approach Bump | | | 7 | 7 | | | | | |
| Guardrail (Y/N) | Yes | | Not attached to bridge rail, potential hazard. | | | | | | |
| Guardrail | | | 5 | 4 | Insufficient length and insufficient posts; 30.6m @ NE & SW corners, 26.6m @ NW & SE corners. Not thriebeam. | | | | |
| Length (m) | 26.600 | | | | | | | | |
| Current Standard (Y/N) | No | | | | | | | | |
| Termination Type | TURNED DOWN ENDS | | | | | | | | |
| Drainage | | | 7 | 7 | | | | | |
| Approach Road General Rating | | 9 | | 9 | | | | | |

| Superstructure | | | | | | |
|--|-----------|-------------|-----------|--------------------------|---|--|
| Bridge Component | | Last | Now | Explanation of Condition | | |
| (Primary Span : SM, 2 Spans, Lengths(m): 6-6, A-Ident Number:) | | | | | | |
| Special Features | | | | | | |
| Special Feature | | | X | | | |
| (Type :) | | | | | | |
| Special Feature | | | X | | | |
| (Type :) | | | | | | |
| Wearing Surface/Deck Top Detail Ratings | | | | | | |
| | N (%) | 1 (%) | 2 (%) | 3 (%) | Snow covered. | |
| Last | 5 | 0 | 0 | 0 | | |
| Now | 15.0 | 0.0 | 0.0 | 0.0 | | |
| Wearing Surface | | | X | X | | |
| (Material Type :) | | | | | | |
| (Thickness(mm) :) | | | | | | |
| Lateral Connection Problem (Y/N) | | No | | | | |
| Deck Top | | | 7 | 5 | Chip to S1G4. | |
| Deck Rideability | | | 7 | 7 | | |
| Deck Joints | | | 6 | 6 | E abut-some buffer angle missing from girder ends but not a danger or problem. | |
| Bump (Y/N) | | No | | | | |
| Deck Drainage | | | 7 | 7 | | |
| Drains Clogged (Y/N) | | No | | | | |
| Curbs/Median | | | 6 | 6 | Top of curbs have multiple hairline longit. cracks. Small chip over N pier. Void at curb ends, open & exposed. | |
| (Curb Type : Standard) | | | | | | |
| Scaling (Percent Area) | | 1 | | | | |
| Bridge Rail | | | 4 | 4 | Single layer with splice btwn posts. Missing 4 bolts in 1 splice in each side - photo. | |
| (Type : GALVANIZED STEEL FLEX BEAM) | | | | | | |
| Bridge Rail Posts | | | 7 | 7 | | |
| (Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL) | | | | | | |
| Bridge Rail/Posts Coating | | | 7 | 7 | | |
| (Type : GALVANIZED) | | | | | | |
| Sidewalk | | | X | X | | |
| Girder Detail Ratings | | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | | |
| Last | 22 | 0 | 0 | 0 | | |
| Now | 0 | 0 | 1 | 0 | | |
| Girders | | | N | 2 | Crack @ girder end, S side over pier end. S1G11 hairline diag crack at pier, no stain. S2G7 has longit. cracks along both edges with corrosion stains. S2G7 wide longit crack on bottom of chamfer edges at A2 with corrosion staining. Longit. crack of N fascia; voids exposed at ends. Connector pocket grout starting to deteriorate. Staining on bottom of girders from connector pockets. | |
| Last Complete Inspection Date | | 26-Nov-2012 | | | | |
| Cracking (Y/N) | | Yes | | | | |
| Spalling (Percent Area) | | 0 | | | | |
| Lift or Connector Pocket Grouted (Y/N) | | Yes | | | | |
| (Number Of Girders : 22) | | | | | | |
| Span Alignment Problems | | | | | | |
| Vertical (Y/N) | | No | | | | |
| Horizontal (Y/N) | | No | | | | |
| Superstructure General Rating | | | 4 | 2 | | |

| Substructure | | | | | | | |
|--|-----------|-----------|-----------|-----------|---|--|--|
| Bridge Component | | | Last | Now | Explanation of Condition | | |
| Abutments | | | | | | | |
| (Extended Backwall Piles (Y/N) : Y) | | | | | All brg piles strutted. | | |
| (Extended Backwall Piles Spacing(mm) : 1500) | | | | | | | |
| (Total Number of Caps/Corbels : 5:5) | | | | | Subcaps have cut ends that are not treated. | | |
| Bearing Seats/Caps/Corbels Detail Ratings | | | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | | | |
| Last | 0 | 0 | 0 | 0 | | | |
| Now | 0 | 0 | 0 | 0 | | | |
| Bearing Seats/Caps/Corbels | | | 6 | 6 | | | |
| (Type : TREATED TIMBER) | | | | | | | |
| (Depth(mm) : 300) | | | | | | | |
| (Width(mm) : 350) | | | | | | | |
| Backwalls/Breastwalls | | | N | 5 | | | Vertical T&G sheeting, minor gap at A2P9, blocked with spacer. |
| Greatest Height (m) | | 2.50 | | | | | |
| Wingwalls | | | 4 | 4 | SE wing pile rotten on top. NW wing pile missing tintop (photos). | | |
| (Total Number of Bearing Piles : 9:9) | | | | | Piles functioning though old. | | |
| Piles Detail Ratings | | | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | | | |
| Last | 18 | 0 | 0 | 0 | | | |
| Now | 0 | 0 | 0 | 0 | | | |
| Piles | | | N | 5 | | | |
| Paint/Coating | | | X | X | | | |
| Abutment Stability | | | 5 | 5 | | | Wire tie backs corroded through. Bowling struts. |
| Scour/Erosion | | | N | 5 | | | |
| Piers/Bents | | | | | | | |
| (Type : PIER-COLUMN) | | | | | Subcaps have cut ends that are not treated. | | |
| (Total Number of Caps/Corbels : 5) | | | | | | | |
| Bearing Seats/Caps/Corbels Detail Ratings | | | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | | | |
| Last | 0 | 0 | 0 | 0 | | | |
| Now | 0 | 0 | 0 | 0 | | | |
| Bearing Seats/Caps/Corbels | | | 6 | 6 | | | |
| (Type : TREATED TIMBER) | | | | | | | |
| (Depth(mm) : 300) | | | | | | | |
| (Width(mm) : 350) | | | | | | | |
| (Total Number of Bearing Piles : 9) | | | | | P3 steel jacketed. | | |
| Piles Detail Ratings | | | | | | | |
| | N (count) | 1 (count) | 2 (count) | 3 (count) | | | |
| Last | 9 | 0 | 0 | 0 | | | |
| Now | 0 | 0 | 0 | 0 | | | |
| Pier Shaft/Piles | | | N | 5 | | | |
| Greatest Height (m) | | 3.20 | | | | | |
| Bracing/Struts/Sheathing | | | 5 | 5 | | | Some notched to accommodate brg plate; some bowing visible. |
| Nose Plate | | | X | X | | | |
| Paint/Coating | | | X | X | | | |
| (Colour Description :) | | | | | | | |
| (Colour Code :) | | | | | | | |

| Substructure | | | | |
|--|-----|----------|----------|---|
| Bridge Component | | Last | Now | Explanation of Condition |
| Pier Stability | | 7 | 7 | |
| Scour | | N | 5 | Minor basin formed under bridge. |
| Debris (Y/N) | Yes | | | Old piles project from streambed but cut off well below flood levels. |
| Substructure General Rating | | 5 | 5 | |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Channel | | | | |
| (U/S Direction : S) | | | | |
| (D/S Direction : N) | | | | |
| Alignment | | 7 | 7 | |
| Bank Stability | | 7 | 7 | |
| HWM (m below Top of Curb) | 1.5 | | | Debris on top of S1 struts. |
| Drift (Y/N) | Yes | | | |
| Slope Protection | | N | 5 | |
| (Type : NATURAL; NATURAL) | | | | |
| Guidebank/Spurs | | X | X | |
| Adequacy of Opening | | 4 | 4 | (Fields flooding u/s & d/s. 12Apr2011). |
| (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 | 2013 | Install missing splice bolts (8). Consider upgrading to double layer to meet standard. | | | | | | | | |
| SEAL CURBS | | | | | | | | | | |
| PATCH DECK | 2013 | Patch deck, chip, 0.1m3 NH. | | | | | | | | |
| OVERLAY DECK | | | | | | | | | | |
| STRAIGHTEN/REPLACE MEMBERS | | | | | | | | | | |
| WASHING | | | | | | | | | | |
| SHOTCRETE REPAIRS | | | | | | | | | | |
| CORE TIMBER CAPS/CORBELS | | | | | | | | | | |
| REPAIR/REPLACE TIMBER CAPS | | | | | | | | | | |
| REPAIR ABUTMENT SCOUR/EROSION | | | | | | | | | | |
| PLACE ADDITIONAL RIP RAP | | | | | | | | | | |
| REMOVE DRIFT ACCUMULATION | | | | | | | | | | |
| INSTALL STRUTS | | | | | | | | | | |
| OTHER ACTION | 2013 | Contact Telus about problem, cable & conduit. | | | | | | | | |
| OTHER ACTION | 2013 | Treat cut ends. | | | | | | | | |
| OTHER ACTION | 2013 | Install tintop at NW. Replace SE wing pile. | | | | | | | | |
| OTHER ACTION | 2013 | Attach guardrail to bridgerail. | | | | | | | | |
| OTHER ACTION | 2013 | Cover curb voids at ends. | | | | | | | | |
| OTHER ACTION | 2013 | Assess crack repair options. | | | | | | | | |
| OTHER ACTION | 2013 | Patch pothole at A1 | | | | | | | | |
| OTHER ACTION | | | | | | | | | | |
| Structural Condition Rating (Last/Now) (%) | 50.0/38.9 | Sufficiency Rating (Last/Now) (%) | 58.0/52.5 | Est. Repl. Yr | 2020 | Maint. Req'd. (Y/N) | Yes | | | |
| Special Comments for Next Inspection | Monitor diagonal girder cracks. Longer structure needed at replacement. LRA emailed to Donald Saunders 05Dec2012. | | 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 | Owen Salava | Previous Assistant's Name | | | | | | | | |
| Next Inspection Date | 26-Aug-2014 | Previous Inspection Date | 12-Apr-2011 | | | | | | | |
| Inspection Cycle (Default) (months) | 21 | | | | | | | | | |
| Comment | | | | | | | | | | |

| Maintenance Recommendations | | | | | | | |
|---|---|--|--|--|-----------------|-------------------|-----|
| Inspector Recommendations | Year | Inspector Comments | Department Comments | Target Year | Est. Cost | Cat # | |
| REPAIR/REPLACE BRIDGE RAIL | 2013 | Install missing splice bolts (8). Consider upgrading to double layer to meet standard. | Programmed | 2013 | | | |
| SEAL CURBS | | | | | | | |
| PATCH DECK | 2013 | Patch deck, chip, 0.1m3 NH. | Programmed | 2013 | | | |
| OVERLAY DECK | | | | | | | |
| STRAIGHTEN/REPLACE MEMBERS | | | | | | | |
| WASHING | | | | | | | |
| SHOTCRETE REPAIRS | | | | | | | |
| CORE TIMBER CAPS/CORBELS | | | | | | | |
| REPAIR/REPLACE TIMBER CAPS | | | | | | | |
| REPAIR ABUTMENT SCOUR/EROSION | | | | | | | |
| PLACE ADDITIONAL RIP RAP | | | | | | | |
| REMOVE DRIFT ACCUMULATION | | | | | | | |
| INSTALL STRUTS | | | | | | | |
| OTHER ACTION | 2013 | Contact Telus about problem, cable & conduit. | Programmed | 2013 | | | |
| OTHER ACTION | 2013 | Treat cut ends. | Programmed | | | | |
| OTHER ACTION | 2013 | Install tintop at NW. Replace SE wing pile. | Programmed, defer SE wing pile until rehab/replacement | 2013 | | | |
| OTHER ACTION | 2013 | Attach guardrail to bridgerail. | Programmed | 2013 | | | |
| OTHER ACTION | 2013 | Cover curb voids at ends. | Programmed | 2013 | | | |
| OTHER ACTION | 2013 | Assess crack repair options. | Programmed | 2013 | | | |
| OTHER ACTION | 2013 | Patch pothole at A1 | Operations | 2013 | | | |
| OTHER ACTION | | | | | | | |
| Structural Condition Rating (Last/Now) (%) | 50.0/38.9 | Sufficiency Rating (Last/Now) (%) | 58.0/52.5 | Est. Repl. Yr | 2020 | Maint. Req. (Y/N) | Yes |
| Special Comments for Next Inspection | Monitor diagonal girder cracks. Longer structure needed at replacement. LRA emailed to Donald Saunders 05Dec2012. | | Department Comments | Currently scheduled in PMA for replacement in 2023. DA | | | |
| Maintenance Reviewed By | Darron Ahlstedt | | Date | 04-Mar-2013 | Estimated Total | 0 | |
| Proposed Long-Term Strategy | | | | | | | |
| On 3-Year Program (Y/N) | | | | | | | |

| | | | |
|-------------------------------------|-------------|---------------------------|-------------|
| Proposed Action | | | |
| Previous Inspector's Name | Owen Salava | Previous Assistant's Name | |
| Next Inspection Date | 26-Aug-2014 | Previous Inspection Date | 12-Apr-2011 |
| Inspection Cycle (Default) (months) | 21 | | |
| Comment | | | |