CK-2506	Alf 0.2km	2019 Inspection

CBR iPad Offline Ver

CBR Data

Latitude	Longitude
°0'0"	°0'0"

Crossing Name	Alf Creek
FSR #	Branch #
Road Name	Alf
User km	0.2
Current Load Rating (tonnes)	41
Structure Class	Permanent Bridge
Portable	N
Superstructure	Steel I-beam
Deck Type	Concrete Composite
Abutment Left	Steel Pipe and Precast Pad
Abutment Right	Steel Pipe and Precast Pad
Spans	1
Total Length (m)	15.3
Deck Width (m)	4.9

Updated Data

Latitude	Longitude
49°20'41.44"	-122°2'53.62"

HD Diff. (m)	10007180.3	Accuracy (m)	10

L45 or 41 tonnes

Inspection

Date of Inspection	2019-03-28 12:25:54 PM	Recommended Next Inspection Year	2022
Inspector Name	Tyson Miller	Inspection Company	MFLNRO

Inspector Comments

Need to check the work that was completed under downstream right bank footing

P.Eng Comments

The downstream right bank footing was previously scoured which resulted in a reduced capacity and an All Steel Portable bridge was installed over top for temporary industrial access. The asbuilt report that was submitted by the licensee who completed the temporary install noted a temporary repair to the underside of the precast footing (see attached document). The All Steel Portable bridge has now been removed and because the previously scoured footing is obstructed from view a proper assessment of the footing cannot be made. Prior to bridge use the footing should be exposed and a qualified professional should assess the competency of that material under it. Until then then limit loading to L45 or 41 tonnes. Replace guardrail, risers and blocks; clean sediment from deck; replace missing delineators; and post bridge ahead signs.

P.Eng Seal

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Approach

Alignment	Fair	VC both approaches
Bridge Ahead Signs Missing	○ 0 ○ 1 ● 2	
Brushing Required	N	
Delineator Missing Left	○ 0 ○ 1 ● 2	
Delineator Missing Right	○ 0 ○ 1 ● 2	
Fender Condition	Fair	
Posted Load Rating	40000	
Road Surface	Fair	

Abutment

Log/Timber Cribs		
Tie Backs		
Bin Wall		
Concrete		
Caps or Sills		
Piles or Posts	Good	
Ballast Wall	Fair	minor damage noted to top of left bank wall
Wing Wall		
Bracing	Good	
Hardware		
Fill	Fair	
Riprap	Fair	Not well graded or tied togther
Bearings	Good	bearing sandwiches
Corrosion Protection		

Deck

Running Surface	Fair	Sediment on deck
Running Planks		
Sub Deck		
Ties		
Nails		
Deck to Girder Bolts		
Concrete Deck	Unrated	Too much sediment to properly inspect
Grout Pockets	Unrated	Too much sediment to properly inspect
Deck Joints	Unrated	Too much sediment to properly inspect, however there are indications that water is getting through and onto the girders in some locations
Steel Deck Plate		
Gravel Surface		
Curb Rail/Blocks/Posts	Poor	Rotten
Hand Rails/Walkouts		
Hardware	Poor	Loose rail bolts
Overall Deck Condition	Poor	Due to rail condition
Gravel Depth (mm)		

Steel/Concrete

Girders	Good	Minor corrosion
Diaphragms	Good	3 bolted bays
Bracing	Fair	1 not properly connected - see photo
Under Trussing		
Hardware	Fair	Missing 2 bracing bolts
Welded/grouted shear connectors		

Log

Log Curbs	
Needle Beam	
Needle Lashing/ Shimming	

Needle Beam to Crib (m)

Needle Diameter (mm)

Stringer Number	Species	Peeled	Diameter (mm)	Rot Depth (mm)	Condition	Comment

Hazards

Estimated Present Water Level Depth (m)	0.5	High Water	☐	Debris	☐
Estimated Present Water Level Width (m)	5.0	Aggradation	☐	Scour	X
Estimated High Water Level Clearance (m)	2.5	Ice	☐		

Comments

Repairs and Monitoring

Repair Item	Priority	Repair Description
1	Medium	Replace the guardrail, risers and blocks and replace delineators
2	Medium	Clean sediment from deck
3	Medium	Post bridge ahead signs
4	High	Expose right bank downstream footing to ensure it's well supported prior to any industrial activity

Item	Monitor Description	Frequency
1		
2		
3		

Sketch
(Select Signature)

CHARTWELL *Consultants Ltd.*

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As-Built Report for

Bridge Installation

DCK-2506

Road Name:	**Chehalis-Alf FSR**
Chainage:	**0+400**
UTM Location:	**569155 m E / 5466214 m N, Zone 10**
Structure Installed:	**18.288 (60') All-Steel Portable**
Lifespan:	**Temporary (Up to 1 Year)**
Load Rating:	**L75 (68,040 kg GVW)**
Stream Name:	**Alf Creek**
Monitored By:	**Lindsey McGill, P.Eng. and Wesley Lennon, EIT.**
Dates On Site:	**May 2, 2017**

Chartwell Consultants Ltd. (CCL) was retained by Probyn Log Ltd to act as both the Coordinating Registered Professional (CRP) and Professional of Record (POR) for the installation of a temporary bridge over Alf Creek at 0+400 of Chehalis-Alf FSR. The stream is believed to contain fish, it is inferred that the stream classification is S2.

Magnum Fabricators Ltd fabricated the bridge and Probyn Log Ltd installed it. A structural design was issued June 20, 2012 (Associated Engineering DWG:20092554-08-3-100). Chartwell Consultants Ltd prepared the conceptual design (DWG: 13-715-DCK-2506) that was sealed on February 2, 2017. Conceptual design consisted of an 18.288m (60') long x 4.26m (14') wide All Steel Portable bridge. A representative of CCL was present to provide construction monitoring, and a final inspection.

The All Steel Portable over spans an existing 15.5m concrete composite bridge on post and pad footings. The All Steel Portable is placed on two 600mm Ø x 7000mm Cedar sill logs, slabbed (400mm width) to provide an even bearing surface. The sill logs have been placed as per the conceptual design to provide adequate setback and clearance from the existing bridge. The All Steel Portable is installed on a 3% favourable grade.

The All Steel Portable was not lag bolted to the log sills at the time of the final inspection. Additionally ballast logs were not installed behind the bridge ends, as a result minor fill sloughing on the bridge corners was observed.

"Dam-Sac" bags and angular rock were placed by hand in the voids in the riprap and beneath the spread footings on the woods side. This is not considered a permanent fix, only to ensure that scour does not worsen while the overspan is in use. It is our understanding that the overspan will be removed within the next year, as soon as industrial activities have ceased.

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Delineators were not installed at the time of the final inspection. All other required signage has been posted and guide logs installed on both approaches.

Recommendations

- Install delineators.
- Lag-bolt All Steel Portable to log sills
- Install ballast wall logs behind bridge ends

Attachments: Site Photos; As-Built Drawings; Structural Drawings; original CBR Report and Construction Assurance Statements

Sincerely,

Digitally signed by Lindsey McGill
Date: 2017.06.11 13:30:09 -07'00'

Wesley Lennon, EIT
Project Engineer
wlennon@chartwell-consultants.com

Lindsey McGill, P.Eng, RPF
Partner / Project Manager
lmcgill@chartwell-consultants.com

CK-2506 Alf 0.2km 2019 Inspection

Approach from Left Bank when facing downstream

Upstream from Crossing

Deck

Downstream from Crossing

Approach from Right Bank when facing downstream

Bracing missing bolts

Left Bank Abutment when facing downstream

Indications of deck joint condition

Right Bank Abutment when facing downstream

Superstructure