

CK-2261

STAVE RIVER 8.5km

2016 Inspection



CBR iPad Offline Ver 0.23 SNT

CBR Data

Latitude	Longitude		
49°28'38.1"	-122°14'10.6"		
Crossing Name	Winslow Creek		
FSR #	8013	Branch #	1
Road Name	STAVE RIVER		
User km	8.5		
Current Load Rating (tonnes)	30		
Structure Class	Temporary Bridge		
Portable	N		
Superstructure	Steel I-beam		
Deck Type	Timber - Untreated - Panels		
Abutment Left	Crib, Log or Untreated Timber		
Abutment Right	Crib, Log or Untreated Timber		
Spans	2		
Total Length (m)	36.3		
Deck Width (m)	4.9		

Updated Data

Latitude	Longitude		
49°28'37.38"	-122°14'11.38"		
HD Diff. (m)	27.1	Accuracy (m)	5
7.5			
4.3			

Inspection

Date of Inspection 2016-07-27 4:04:34 PM

Inspector Name Jamie Rupar Gilliatt

Inspection Company SNT Engineering

Inspector Comments

Bridge is in poor condition and currently rated for 30 tonnes, but no load posting sign in place. Limited access to all substructure components. Previous inspection noted crushing of top logs, this was not identified, likely due to amount of sap rot. Pier is in poor condition. Bug infestation of top pier log for span 2. 50 mm sap rot with some end rot noted. Trees growing out of pier. Previously noted upstream to downstream slope of deck could not be identified. Steel plate between posts at pier almost level. Deck is in poor condition due to deterioration of span 1 guardrail and span 2 wearing planks. Ties are also starting to rot. Structure requires replacement. Undated user km to 7.5 based on road km markings.

P.Eng Comments

At minimum replace the wheel path wear planks on span 2 and at that time closely inspect the ties while they are exposed and replace/add where necessary; replace the rotting risers and guardrail on span 1; replace the missing fender at the downstream right approach; post bridge ahead and LOAD RATING signs. Recommend removing the debris (or cutting it into small pieces) located at the inlet. The present load rating of 30 tonnes can continue **PROVIDED** these works are completed. Due to the poor condition of the entire structure continual inspections are required while in use and during/after high flows. Replace the entire structure soon.



09/03/2017

P.Eng Seal

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Approach

Alignment Good

 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 Missing at downstream corner of right approach.

Posted Load Rating No posting sign.

Road Surface Poor Large potholes in approach.

Abutment

Log/Timber Cribs Poor Significant sap rot (>100mm) and end rot in logs. Could not identify reported crushing at L/B. Too much sap rot to see crushing at R/B.

Tie Backs Poor Significant sap rot and end rot. Some tie backs completely rotten. Top downstream tie back at L/B might be crushing.

Bin Wall N/A

Concrete N/A

Caps or Sills N/A

Piles or Posts Fair Pier has post supports.

Ballast Wall Fair Concrete ballast wall at right abutment. Ballast wall logs at left abutment.

Wing Wall Poor Significant heart rot with some sap rot. Trees growing out of wing wall. Possible slumping.

Bracing N/A

Hardware Fair

Fill Fair

Riprap Poor Limited protection in front of cribs.

Bearings Fair Rubber bearings at pier.

Corrosion Protection N/A

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Deck

Running Surface	N/A	Large potholes in approach.
Running Planks	Poor	Heavily worn in wheel tracks of span 2. Some wear in span 1.
Sub Deck	N/A	No sub deck, just wearing planks.
Ties	Fair	Debris on ties. End rot and pockets of rot adjacent to deck edge noted in several ties. Sample drilled. Typical minor rot at plank interface. Some 100 deep pockets on ties.
Nails	Fair	Starting to protrude in span 2.
Deck to Girder Bolts	Unrated	No access.
Concrete Deck	N/A	
Grout Pockets	N/A	
Deck Joints	N/A	
Steel Deck Plate	N/A	
Gravel Surface	N/A	
Curb Rail/Blocks/Posts	Poor	Span 1: rot in 8 of 14 risers, with rotten sections of guardrail. Span 2: guardrail and risers typically sound.
Hand Rails/Walkouts	N/A	
Hardware	Poor	Loose lashing.
Overall Deck Condition	Poor	Heavily worn running planks, rotten risers and rot in guardrails.
Gravel Depth (mm)		

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Steel/Concrete

Serial/ID Plate No ID Tags.

Girders Fair

Diaphragms Fair

Bracing Fair

Under Trussing N/A

Hardware N/A Loose lashing at abutments.

Welded/grouted
shear connectors N/A**Log**

Log Curbs N/A

Needle Beam N/A

Needle Lashing/
Shimming N/A

Needle Beam to Crib (m)

Needle Diameter (mm)

Stringer
Number

Species

Peeled

Diameter
(mm)Rot Depth
(mm)

Condition

Comment

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Hazards

Estimated Present Water Level Depth (m)	2	High Water	☐	Debris	☒
Estimated Present Water Level Width (m)	17	Aggradation	☐	Scour	☐
Estimated High Water Level Clearance (m)	2.5	Ice	☐		

Comments Several large trees in river upstream of bridge.

Repairs and Monitoring

Repair

Item	Priority	Repair Description
1	High	Plan for structure replacement. Install load posting sign in interim period.
2	High	Replace wearing planks in span 2 and guardrail in span 1. Requires: 100 mm thick planks for 4.3 m wide, 14.6 m long section of deck. 44 m of 250x250 mm guardrail, 14 700x250x250 mm risers.
3	Medium	Install fender at right approach downstream corner. Install bridge ahead signs.

Item	Monitor Description	Frequency
1	Monitor deterioration of ties prior to replacement of structure.	Anually

2

3

Sketch
(Select Signature)



Left Approach Facing Bridge



Deck



Left Approach Facing Away From Bridge



Looking Upstream



Looking Downstream



Span 2 Deck



Rotten Guardrail and Riser



Right Approach Facing Away From Bridge



Left Approach Facing Bridge



Left Abutment Top Crib Log



Span 2 Heavily Worn Deck



Left Abutment Downstream Wing Wall



Downstream Elevation



Right Bank Abutment



Upstream Elevation



Pier Right Face



Left Bank Abutment



Girders



Steel Plate between Pier Posts Level



Pier Left Face