CK-2269	STAVE RIVER 21.6km	2016 Inspection

CBR iPad Offline Ver 0.23 SNT

CBR Data

Latitude	Longitude
49°33'16.89"	-122°19'19"

Crossing Name	Stave River
FSR #	8013
Branch #	1
Road Name	STAVE RIVER
User km	21.6
Current Load Rating (tonnes)	68
Structure Class	Temporary Bridge
Portable	N
Superstructure	Steel I-beam
Deck Type	Timber - Untreated
Abutment Left	Crib, Log or Untreated Timber
Abutment Right	Sill -Temporary Materials
Spans	1
Total Length (m)	19.5
Deck Width (m)	4.3

Updated Data

Latitude	Longitude
49°33'16.97"	-122°19'17.67"

HD Diff. (m)	26.7	Accuracy (m)	5
User km	20.3		

Inspection

Date of Inspection	2016-07-26 6:36:03 PM		
Inspector Name	Jamie Rupar Gilliatt	Inspection Company	SNT Engineering

Inspector Comments

Steel girders with log crib abutments and modular timber panel deck. Limited access to left abutment. No access to right abutment. Girders and deck sloped 3% to upstream at right abutment. Possibly due to crushing of left abutment crib. No slope at left abutment. Specialist access equipment required for more detailed inspection of abutments. Deck covered in debris. Planks in wheel tracks require replacement. Some sections of guardrail require replacement. Updated user km to 20.3 base on road km markings.

P.Eng Comments

There does not appear to be any change in the abutment condition; however its 30 years old and should be replaced soon - in the meantime monitor its condition. The timber deck was last replaced in 2009 (now 7 years old), therefore plan for a complete deck (ties, planks, guardrail and risers) replacement soon. In the meantime, replace the heavily worn planks and damaged sections of guardrail and risers. Reposition the concrete no post barriers at both approaches, post bridge ahead signs and brush approaches. The present load rating of L75 or 68 tonnes to continue.

P.Eng Seal

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Approach

Alignment	Poor	Bridge on S curve.
Bridge Ahead Signs Missing	○ 0 ○ 1 ● 2	
Brushing Required	Y	Vegetation obscures sight lines.
Delineator Missing Left	● 0 ○ 1 ○ 2	
Delineator Missing Right	● 0 ○ 1 ○ 2	
Fender Condition	Fair	Embankment at left approach downstream corner. CRB barriers at other corners partially over turned and covered in debris.
Posted Load Rating		No sign in place.
Road Surface	Fair	

Abutment

Log/Timber Cribs	Fair	Left Abutment: Fair to poor. Limited access. Up to 50 mm sap rot. Trees growing out of some logs. No signs of crushing or distress.
Tie Backs	Fair	Fair to poor. Limited access. End splits and minor end rot. Trees growing in places. No signs of crushing or distress.
Bin Wall	N/A	
Concrete	N/A	
Caps or Sills	Fair	Timber sill. Limited access. No signs of crushing or distress.
Piles or Posts	N/A	
Ballast Wall	Fair	Timber plank ballast wall. Limited access.
Wing Wall	N/A	
Bracing	N/A	
Hardware	Fair	
Fill	Fair	
Riprap	Fair	Cribs placed on bedrock. Some riprap at left abutment downstream corner
Bearings	N/A	
Corrosion Protection	N/A	

Deck

Running Surface	Fair	
Running Planks	Poor	Covered in debris. Moderate wear in wheel tracks with some spots of heavy wear.
Sub Deck	Fair	Limited inspection possible. Drilled 4 locations, one 10 mm pocket of rot noted - file indicates no subdeck??
Ties	Fair	
Nails	Fair	Starting to protrude in wheel tracks.
Deck to Girder Bolts	Fair	
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	Fair	1 failed riser at L/B U/S corner. 1 split guardrail section. 4 end sections of guardrail have impact damage.
Hand Rails/Walkouts	N/A	
Hardware	Fair	Lashing.
Overall Deck Condition	Fair	
Gravel Depth (mm)		

Steel/Concrete

Serial/ID Plate	No ID Tag.	
Girders	Fair	4 girders. Light surface corrosion. Girders appear to slope upstream at right abutment.
Diaphragms	Fair	Light surface corrosion.
Bracing	Fair	Light surface corrosion.
Under Trussing	N/A	
Hardware	N/A	
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

Hazards

Estimated Present Water Level Depth (m)		High Water ☐	Debris ☐
Estimated Present Water Level Width (m)	14	Aggradation ☐	Scour ☐
Estimated High Water Level Clearance (m)	4	Ice ☐	

Comments: Bridge spans small gorge.

Repairs and Monitoring

Repair Item	Priority	Repair Description
1	High	Clean bridge deck and replace running planks in wheel tracks. Number of planks required to be determined after cleaning.
2	High	Replace damage/deteriorated guardrail sections. Requires 5 3050x250x250 mm sections and one 770x250x250 mm riser.
3	Medium	Install bridge ahead signs. Reposition right approach fenders and left approach upstream fender.

Item	Monitor Description	Frequency
1	Monitor abutments.	Anually
2	Access right abutment to inspect crib and determine cause bridge to slope to upstream side.	Other
3		

Sketch
(Select Signature)

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Left Approach Facing Bridge

Deck

Left Approach Facing Away From Bridge

Looking Downstream

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Looking Upstream

Right Approach Facing Bridge

Right Approach Facing Away From Bridge

Left Approach Upstream Fender

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Left Abutment Upstream Corner - Damaged Guardrail & Failed Riser

Upstream Elevation

Split Section of Guardrail

Downstream Elevation

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Left Bank Abutment

Left Abutment Downstream Corner

Right Bank Abutment

Left Abutment Downstream Corner

Girders

Area of Heavy Wear in Running Planks