Photo 1 Structure from north approach

Photo 2 Structure from south approach

Photo 3 North approach from center of structure

Photo 4 South approach from center of structure

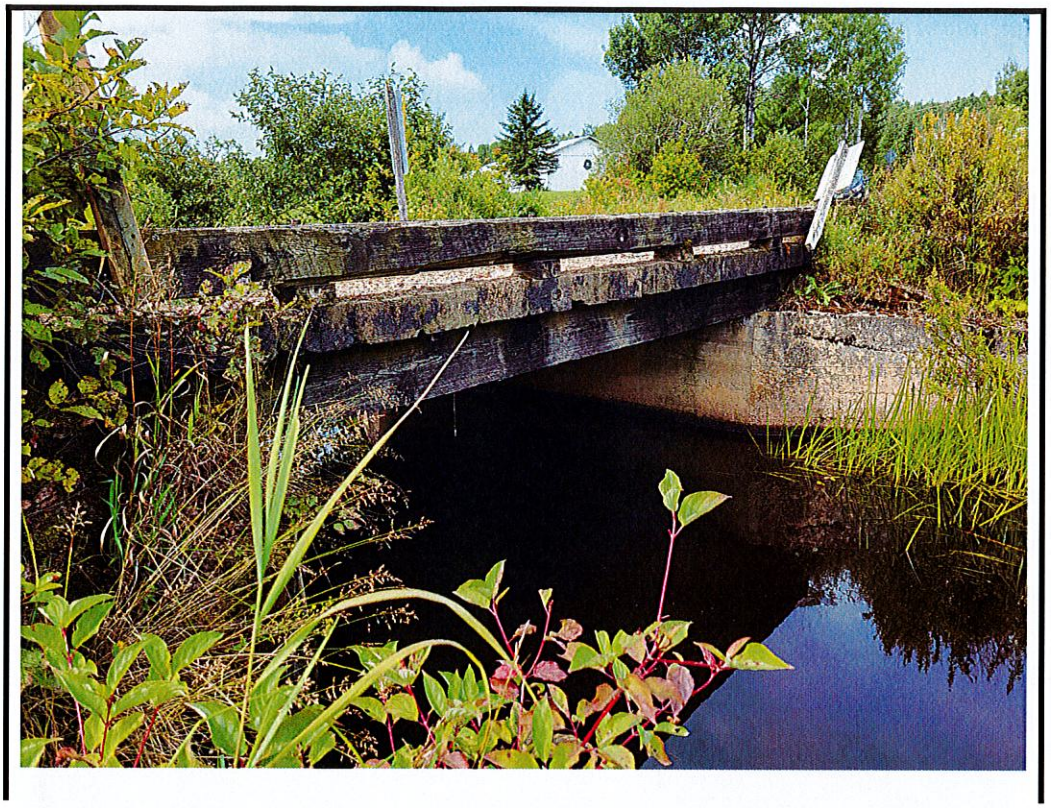

Photo 5 East elevation

Photo 6 West elevation

Photo 7 Loose gravel, tire rutting & potholes at ends of deck on approach wearing surface

Photo 8 Hazard sign leaning away from roadway on NE corner of deck

Photo 9 Rot, checks and splits on timber curb along west edge of deck

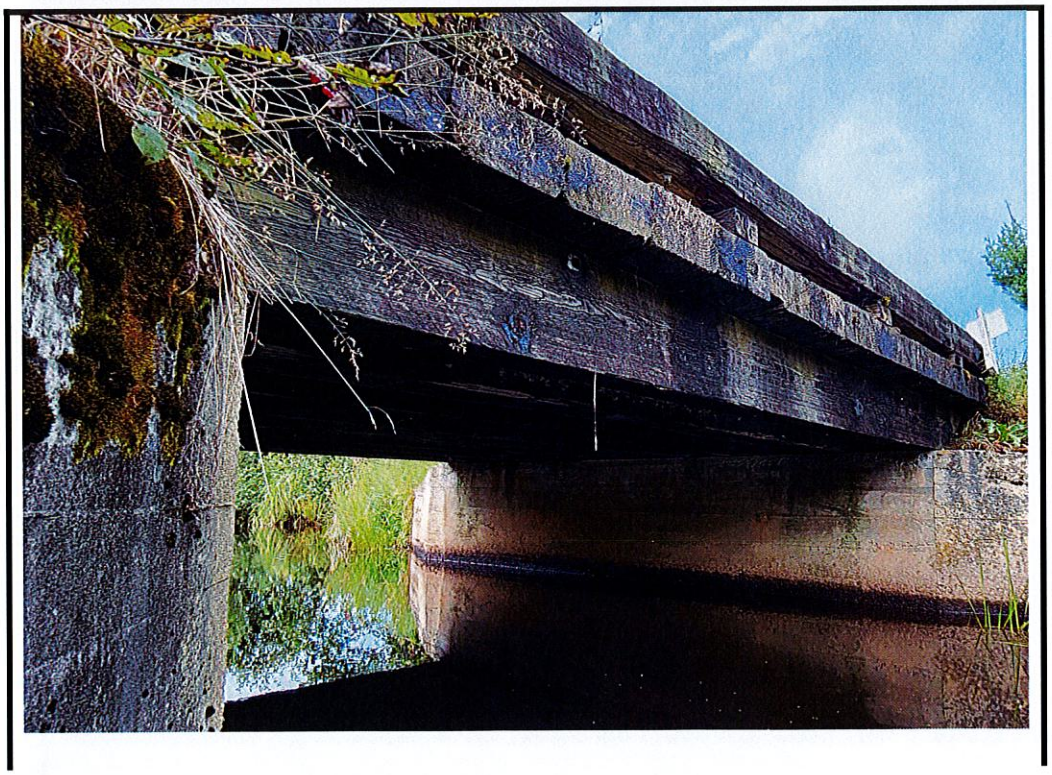

Photo 10 Weathering on timber girders

Photo 11 Moderate honeycombing and scaling noted on NW wingwall

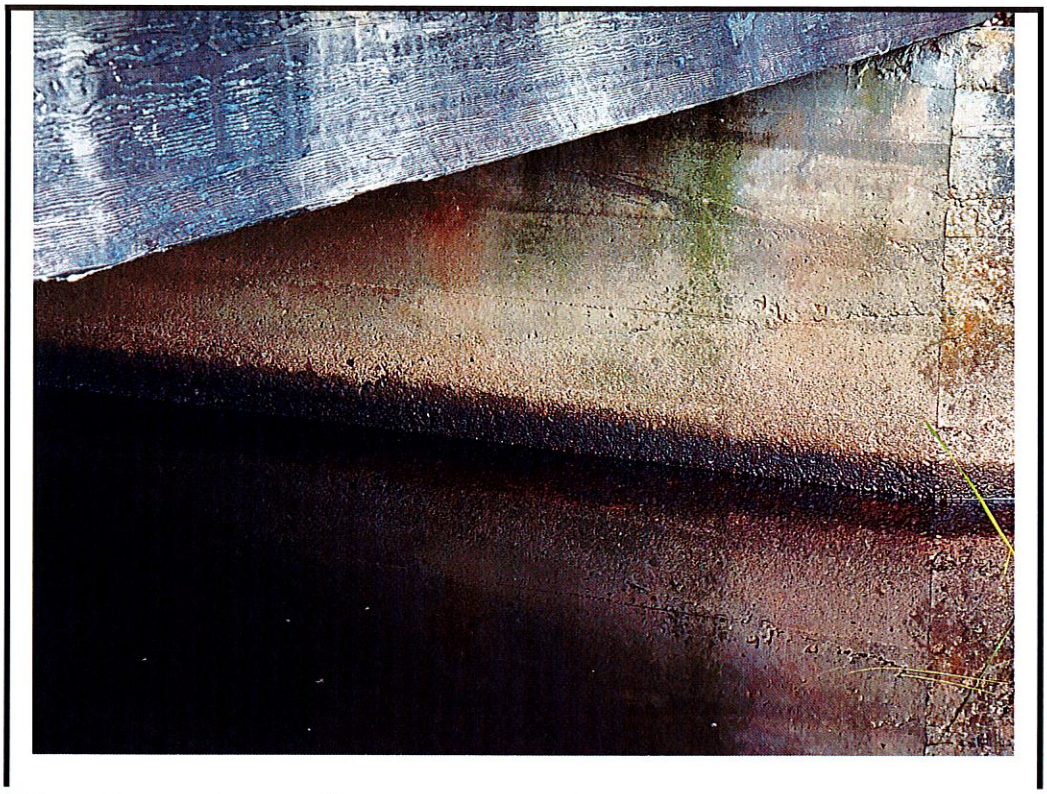

Photo 12 Moderate scaling on base of north abutment wall

Structure Condition Summary Form

Structure Name Pautois Bridge
Structure Number B5
Date of Inspection August 9, 2024
Project No.
Consultant HP Engineering Inc.

Element Group	Element Name	Unit (Qty.)	Unit Price (MTO)	Total Element Quantity	Element Qty. in Excellent Condition (1.00)	Element Quantity in Good Condition (0.75)	Element Quantity in Fair Condition (0.4)	Element Quantity in Poor Condition (0)	Total Replacement Value (TRV)	Current Element Value (CEV)	Element Condition Index	Performance Deficiency	Maintenance Need
Abutment	Abutment Walls	Sq.m	900.00	60.90	0.00	60.90	0.00	0.00	54810	41108	75	00	00
	Ballast Walls	Sq.m	350.00	16.70	0.00	16.70	0.00	0.00	5845	4384	75	00	00
	Bearings	Each	1000.00	8.00	0.00	7.00	1.00	0.00	8000	5650	71	00	00
	Wingwalls	Sq.m	350.00	24.32	0.00	24.32	0.00	0.00	8512	6384	75	00	00
Approaches	Approach Slabs	Sq.m	140.00	94.80	0.00	94.80	0.00	0.00	13272	9954	75	00	00
	Wearing Surface	Sq.m	6.00	94.80	0.00	90.80	2.00	2.00	569	413	73	00	15, 02
Barriers	Railing Systems	m	200.00	36.96	0.00	36.86	0.10	0.00	7392	5537	75	00	00
	Girders -Steel	Sq.m	420.00	151.62	0.00	151.62	0.00	0.00	63680	47760	75	00	00
Coatings	Structural steel	Sq.m	80.00	36.80	0.00	35.80	1.00	0.00	2944	2180	74	00	00
	Deck Top - Thin Slab	Sq.m	120.00	160.78	0.00	160.78	0.00	0.00	19294	14470	75	00	00
Decks	Soffit - Thin Slab	Sq.m	120.00	172.97	0.00	172.97	0.00	0.00	20756	15567	75	00	00
	Wearing Surface	Sq.m	25.00	133.06	0.00	125.06	4.00	4.00	3327	2385	72	00	15
									208401	155792			

Bridge Condition Index (BCI) 75

I_t	0	Importance Factor for Traffic
I_c	0	Importance Factor for Economic Impacts
I_w	0	Importance Factor for Bridge Width
I_p	0	Importance Factor for Bridge Profile or Alignment

Bridge Sufficiency Index (BSI) 75

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGE **Site No.: B5**

INVENTORY DATA:

Structure Name	Pautois Bridge		
Main Hwy/Road #	Peddlers Drive	**Under Structure:**	Navigable Water ☐ Non-Navigable Water ☒ Rail ☐ Road ☐ Pedestrian ☐ Other ☐
Road Name:	Peddlers Drive	**On Structure:**	Rail ☐ Road ☒ Pedestrian ☐ Other ☐
Structure Location	0.34 km west of Pautois Rd.		
Latitude	46° 15 '37.3 " N	Longitude	78° 50' 53.60" W
Owner(s)	Township of Calvin	Heritage Designation	Not Cons. ☒ Cons. /Not App. ☐ List/Not Desig. ☐ Desig./not List ☐ Desig. & List ☐
MTO Region	-	Road Class:	Freeway ☐ Arterial ☐ Collector ☐ Local ☐
MTO District	-	Posted Speed	- No. of Lanes 2
Old County	-	AADT	- % Trucks -
Geographic Twp.	-	Special Routes	Transit ☐ Truck ☐ School ☐ Bicycle ☐
Structure Type	Steel Girder Bridge	Detour Length Around Structure	- (km)
Total Deck Length	18.48 (m)	Fill on Structure	- (m)
Overall Str. Width	8.7 (m)	Skew Angle	- (Degrees)
Total Deck Area	160.78 (m^2)	Direction of Structure	East/West
Roadway Width	7.9 (m)	No. of Spans	1
Span Lengths	18.48 (m)		

HISTORICAL DATA

Year Built	2012	Last OSIM Inspection	May 30, 2022
Year of Last Major Rehab.	-	Last Enhanced OSIM Inspection	-
Current Load Limit	- (tonnes)	Last Bridge Master Inspection	-
Load Limit By-Law #	-	Last Evaluation	-
By-Law Expiry Date	-	Last Underwater Inspection	-
Min. Vertical Clearance	- (m)	Last Condition Survey	-

Rehabilitation History: (Date / Description)

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGE **Site No.: B5**

FIELD INSPECTION INFORMATION	
Date of Inspection:	August 9, 2024 — Type of Inspection: ☒ OSIM ☐ Enhanced OSIM
Inspector:	Tashi Dwivedi, P.Eng., HP Engineering
Others in Party:	Derick Battrick, P.Eng., HP Engineering
Access Equipment Used:	Measuring Tape, Digital Camera and Hammer
Weather:	Sun and Cloud
Temperature:	23 °C

ADDITIONAL INVESTIGATION REQUIRED	Priority			Estimated Cost
	None	Normal	Urgent	
Rehabilitation/Replacement Study:	X			$ -
Material Condition Survey	X			$ -
Detailed Deck Condition Survey:	X			$ -
Non-destructive Delamination Survey of Asphalt- Covered Deck:	X			$ -
Concrete Substructure Condition Survey:	X			$ -
Detailed Coating Condition Survey:	X			$ -
Detailed Timber Investigation:	X			$ -
Underwater Investigation:	X			$ -
Fatigue Investigation:	X			$ -
Seismic Investigation:	X			$ -
Structure Evaluation:	X			$ -
Monitoring	X			$ -
Monitoring of Deformations, Settlement and Movements:	X			$ -
Monitoring Crack Widths:	X			$ -
Load Posting – Estimated Load Limit			**Total Cost**	$ -

Investigation Notes:

OVERALL STRUCTURAL NOTES:	
Recommended Work on Structure:	☒ None ☐ Minor Rehab. ☐ Major Rehab. ☐ Replace
Timing of Recommended Work:	☐ 1 to 5 years ☐ 6 to 10 years
Overall Comments: Overall, structure is generally in good condition. Wide transverse cracks at ends of approach slabs and medium to wide longitudinal cracks along both approach centrelines. Minor loss of stone noted at embankments on west with exposed geotextile.	
Date of Next Inspection:	May 2026

Suspected Performance Deficiencies

00 None
01 Load carrying capacity
02 Excessive deformations (deflections & rotation)
03 Continuing settlement
04 Continuing movements
05 Seized bearings
06 Bearing not uniformly loaded/unstable
07 Jammed expansion joint
08 Pedestrian/vehicular hazard
09 Rough riding surface
10 Surface ponding
11 Deck drainage
12 Slippery surfaces
13 Flooding/channel blockage
14 Undermining of foundation
15 Unstable embankments
16 Other

Maintenance Needs

01 Lift and swing bridge maintenance
02 Bridge cleaning
03 Bridge handrail maintenance
04 Painting steel bridge structures
05 Bridge deck joint repair
06 Bridge bearing maintenance
07 Repair of structural steel
08 Repair of bridge concrete
09 Repair of bridge timber
10 Bailey bridges maintenance
11 Animal/pest control
12 Bridge surface repair
13 Erosion control at bridges
14 Concrete sealing
15 Rout and seal
16 Bridge deck drainage
17 Scaling (loose Concrete or ACR Steel)
18 Other

ELEMENT DATA					
Element Group:	Approaches		**Length:**		30 m
Element Name:	Barrier		**Width:**		-
Location:	East & West Approaches		**Height:**		-
Material:	Steel		**Count:**		4
Element Type:	Steel Flex Beam on Steel Posts		**Total Quantity:**		120 m
Environment:	Severe		**Limited Inspection:**		☐
Protection System	Hot Dip Galvanizing				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m	-	120	-	-

Comments:
Generally in good condition. Some minor abrasions observed.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Approaches	**Length:**		6 m
Element Name:	Wearing Surface	**Width:**		7.9 m
Location:	East & West	**Height:**		-
Material:	Asphalt	**Count:**		2
Element Type:	Approach Wearing Surface	**Total Quantity:**		94.8 m^2
Environment:	Severe	**Limited Inspection:**		☐
Protection System	None			
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	90.8	2	2

Comments:
Generally in good condition with wide transverse cracks at ends of approach slabs and wide longitudinal cracks along the both approach centrelines. Wide longitudinal crack noted on west approach. Light ravelling throughout the approach on both sides. Accumulation of sand on edges of roadway.

Performance Deficiencies: 00	**Maintenance Needs:** 15, 02
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☒ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Approaches		**Length:**	6 m	
Element Name:	Approach Slabs		**Width:**	7.9 m	
Location:	East & West of Structure		**Height:**	0.25 m	
Material:	Concrete		**Count:**	2	
Element Type:	Concrete Approach Slab		**Total Quantity:**	94.8 m^2	
Environment:	Moderate		**Limited Inspection:**	☒	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	94.8	-	-

Comments:
Based on the condition of wearing surface, the approach slabs are estimated assumed to be in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Accessories		**Length:**	-	
Element Name:	Signs		**Width:**	-	
Location:	NE, NW, SE & SW of Structure		**Height:**	-	
Material:	Steel		**Count:**	4	
Element Type:	Hazard Signs (Steel)		**Total Quantity:**	4	
Environment:	Severe		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	4	-	-

Comments:
Hazards signs are generally in good condition with minor deformation and abrasion noted.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Barriers		**Length:**		18.48 m
Element Name:	Railing Systems		**Width:**		-
Location:	North & South of Sides of Structure		**Height:**		-
Material:	Steel		**Count:**		2
Element Type:	HSS Rails on Steel Posts		**Total Quantity:**		36.96 m
Environment:	Severe		**Limited Inspection:**		☐
Protection System	Hot Dip Galvanizing				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m	-	36.86	0.1	-

Comments:
Generally in good condition with minor abrasion noted at south barrier.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Decks		**Length:**		18.48 m
Element Name:	Wearing Surface		**Width:**		7.2 m
Location:	Top of Deck		**Height:**		-
Material:	Asphalt		**Count:**		1
Element Type:	Deck Wearing Surface		**Total Quantity:**		133.06 m^2
Environment:	Severe		**Limited Inspection:**		☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	125.06	4	4

Comments:
Generally in good condition with light asphalt polishing and light ravelling noted throughout. Medium longitudinal crack observed at centerline.

Performance Deficiencies: 00	**Maintenance Needs:** 15
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☒ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Decks		**Length:**	18.48 m	
Element Name:	Deck Top (Covered)		**Width:**	8.7 m	
Location:	Top of Deck		**Height:**	-	
Material:	Concrete		**Count:**	1	
Element Type:	Thin Slab		**Total Quantity:**	160.78 m^2	
Environment:	Moderate		**Limited Inspection:**	☒	
Protection System	Asphalt Wearing Surface				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	160.78	-	-

Comments:
Based on the condition of wearing surface, the visible edges of the deck top and the soffit, the deck top is estimated to be in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Decks		**Length:**	18.48 m	
Element Name:	Soffit – Thin Slab (Exterior)		**Width:**	0.93 m	
Location:	North & South Underside of Structure		**Height:**	-	
Material:	Concrete		**Count:**	2	
Element Type:	Thin Slab		**Total Quantity:**	34.37 m^2	
Environment:	Moderate		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2		34.37	-	-

Comments:
Soffit exterior is generally in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Decks		**Length:**		18.48 m
Element Name:	Soffit – Thin Slab (Interior)		**Width:**		7.5 m
Location:	Underside of Structure		**Height:**		-
Material:	Concrete		**Count:**		1
Element Type:	Thin Slab		**Total Quantity:**		138.6 m^2
Environment:	Benign		**Limited Inspection:**		☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	138.6	-	-

Comments:
Soffit interior is generally in good condition with hairline longitudinal cracks noted.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Beams / MLEs		**Length:**		2 m
Element Name:	Girders (End)		**Width:**		0.3 m
Location:	East & West Underside of Deck		**Height:**		0.7 m
Material:	Steel		**Count:**		8
Element Type:	Steel I-Girders		**Total Quantity:**		36.8 m^2
Environment:	Benign		**Limited Inspection:**		☐
Protection System	Paint				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	36.8	-	-

Comments:
Ends of steel girders are in good condition; coating is noted.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

ELEMENT DATA					
Element Group:	Beams / MLEs		**Length:**	12.48 m	
Element Name:	Girders (Intermediate)		**Width:**	0.3 m	
Location:	Underside of Deck		**Height:**	0.7 m	
Material:	Steel		**Count:**	4	
Element Type:	Steel I-Girders		**Total Quantity:**	114.82 m^2	
Environment:	Benign		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	114.82	-	-

Comments:
Intermediate steel girders are in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Beams / MLEs		**Length:**	2.5 m	
Element Name:	Diaphragms (Ends)		**Width:**	0.09 m	
Location:	East & West Underside of Structure		**Height:**	0.38 m	
Material:	Steel		**Count:**	6	
Element Type:	Steel C-Channels		**Total Quantity:**	6	
Environment:	Benign		**Limited Inspection:**	☐	
Protection System	Paint				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	6	-	-

Comments:
Steel diaphragms in end region are in good condition; coating is noted.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Beams / MLEs		**Length:**	2.5 m	
Element Name:	Diaphragms (Intermediate)		**Width:**	0.09 m	
Location:	Underside of Structure		**Height:**	0.38 m	
Material:	Steel		**Count:**	6	
Element Type:	Steel C-Channels		**Total Quantity:**	6	
Environment:	Benign		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	6	-	-

Comments:
Intermediate steel diaphragms are in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Coatings		**Length:**	2 m	
Element Name:	Structural Steel (End)		**Width:**	0.3 m	
Location:	Coating on Girders (End)		**Height:**	0.7 m	
Material:	Concrete		**Count:**	8	
Element Type:	Paint		**Total Quantity:**	36.8 m^2	
Environment:	Moderate		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	34.8	2	-

Comments:
Coating on end portions of girders is in good condition with some light flaking and local failure.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Coatings		**Length:**	2.5 m	
Element Name:	Structural Steel (End)		**Width:**	0.09 m	
Location:	Coating on Diaphragms (End)		**Height:**	0.38 m	
Material:	Concrete		**Count:**	6	
Element Type:	Paint		**Total Quantity:**	6	
Environment:	Moderate		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	6	-	-

Comments:
Coating of diaphragms in end regions is in good condition

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Abutments		**Length:**	4 m	
Element Name:	Wingwalls		**Width:**	-	
Location:	NE, NW, SE & SW of Structure		**Height:**	1.52 m	
Material:	Concrete		**Count:**	4	
Element Type:	Reinforced Concrete Wingwall		**Total Quantity:**	24.32 m^2	
Environment:	Moderate		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	24.32	-	-

Comments:
Wingwalls are in good condition. Moss growth noted at deck interface on neoprene pad.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Abutments			**Length:**	-
Element Name:	Ballast Walls			**Width:**	8.7 m
Location:	East & West Underside of Structure			**Height:**	0.96 m
Material:	Concrete			**Count:**	2
Element Type:	Reinforced Concrete Ballast Wall			**Total Quantity:**	16.70 m^2
Environment:	Benign			**Limited Inspection:**	☒
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	16.7	-	-

Comments:
Ballast walls are generally in good condition based on partially visible portions. Damp stains observed on East ballast wall.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Abutments			**Length:**	-
Element Name:	Bearings			**Width:**	-
Location:	On Abutment Wall			**Height:**	-
Material:	Neoprene / Rubber			**Count:**	8
Element Type:	Elastomeric Bearing			**Total Quantity:**	8
Environment:	Benign			**Limited Inspection:**	☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	7	1	-

Comments:
Abutment bearings are in good condition. Steel shoe plates at each bearing location are in good condition as well. Minor deformation of steel plate at northeast bearing.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Abutments			**Length:**	-
Element Name:	Abutment Walls			**Width:**	8.7 m
Location:	East & West Underside of Structure			**Height:**	3.5 m
Material:	Concrete			**Count:**	2
Element Type:	Reinforced Concrete Abutment			**Total Quantity:**	60.9 m^2
Environment:	Benign			**Limited Inspection:**	☒
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	60.9	-	-

Comments:
Abutment walls are partially covered by slope protection. Visible portions are in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Foundations			**Length:**	-
Element Name:	Foundation (Below Ground Level)			**Width:**	-
Location:	Below Abutment Walls			**Height:**	-
Material:	Concrete			**Count:**	-
Element Type:	Unknown			**Total Quantity:**	-
Environment:	Benign			**Limited Inspection:**	☒
Protection System	Unknown				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	N/A	-	-	-	-

Comments:
No visible evidence of foundation instability observed at time of inspection.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA					
Element Group:	Embankments and Streams		**Length:**		-
Element Name:	Embankments		**Width:**		-
Location:	NE, NW, SE & SW of Structure		**Height:**		-
Material:	Native Soil		**Count:**		6
Element Type:	Embankment		**Total Quantity:**		6
Environment:	Moderate		**Limited Inspection:**		☐
Protection System	Rock Protection				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	5	1	-

Comments:
Embankments appear stable, they are moderately sloped and covered by rock slope protection. Minor loss of stone noted at west with exposed geotextile.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Embankments and Streams		**Length:**		-
Element Name:	Slope Protection		**Width:**		-
Location:	NE, NW, SE & SW of Structure		**Height:**		-
Material:	Rock		**Count:**		6
Element Type:	Rock Slope Protection		**Total Quantity:**		6
Environment:	Moderate		**Limited Inspection:**		☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	5	1	-

Comments:
Slope protection is generally in good condition with some loss of slope protection at west.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B5**

ELEMENT DATA						
Element Group:	Embankments and Streams			**Length:**	-	
Element Name:	Streams and Waterways			**Width:**	-	
Location:	Below Main Span			**Height:**	-	
Material:	Native			**Count:**	-	
Element Type:	Streams			**Total Quantity:**	All	
Environment:	Benign			**Limited Inspection:**	☐	
Protection System	None					
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**	
	All	-	All	-	-	

Comments:
Moderate volume with high flow from south to north with no visible flow obstructions at time of inspection.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGE **Site No.: B5**

REPAIR AND REHABILITATION REQUIRED		Priority			Estimated Cost
Element	**Repair and Rehabilitation Required**	**6 - 10 Years**	**1 - 5 Years**	**< 1 year**	
				Total Cost	**$**

ASSOCIATED WORK	Comments	Estimated Cost
Approaches		
Detours		
Traffic Control		
Utilities		
Right of Way		
Environmental Study		
Other		
Contingencies		
	Total Cost	**$ -**

JUSTIFICATION

Photo 1 Structure from east approach

Photo 2 Structure from west approach

Photo 3 East approach from center of structure

Photo 4 West approach from center of structure

Photo 5 North elevation

Photo 6 South elevation

Photo 7 Wide transverse and longitudinal cracks on west approach wearing surface

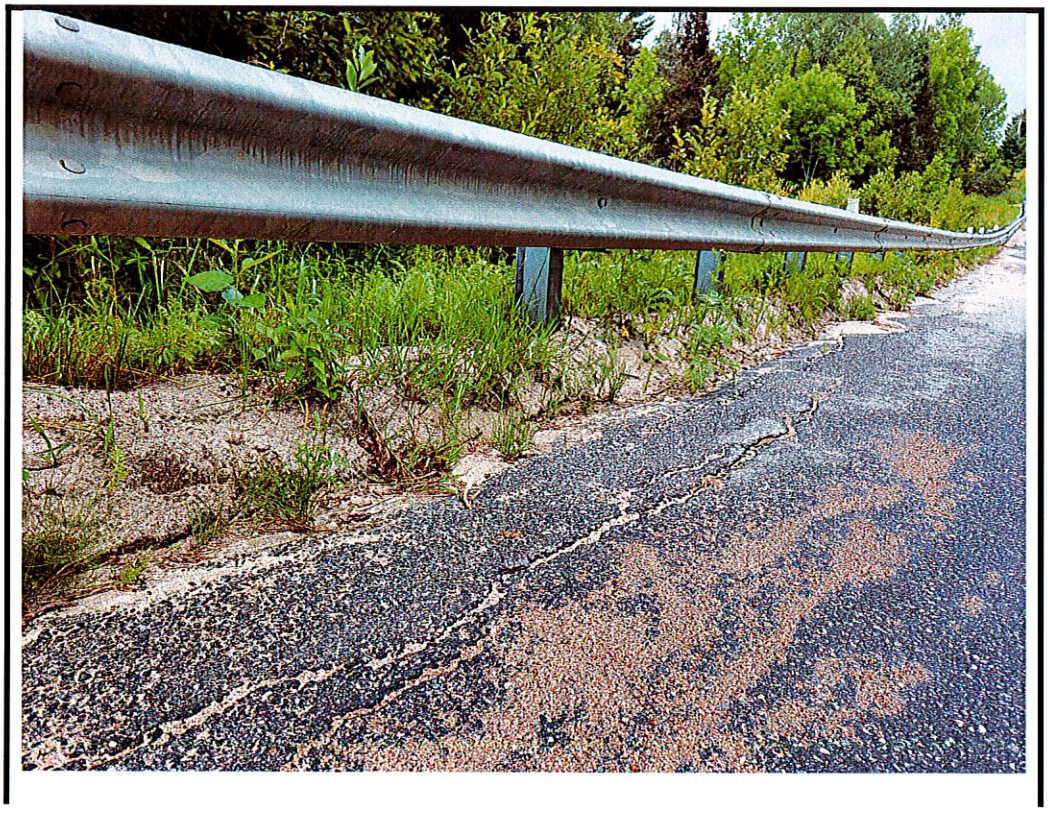

Photo 8 Accumulation of dirt and debris below approach guide rail

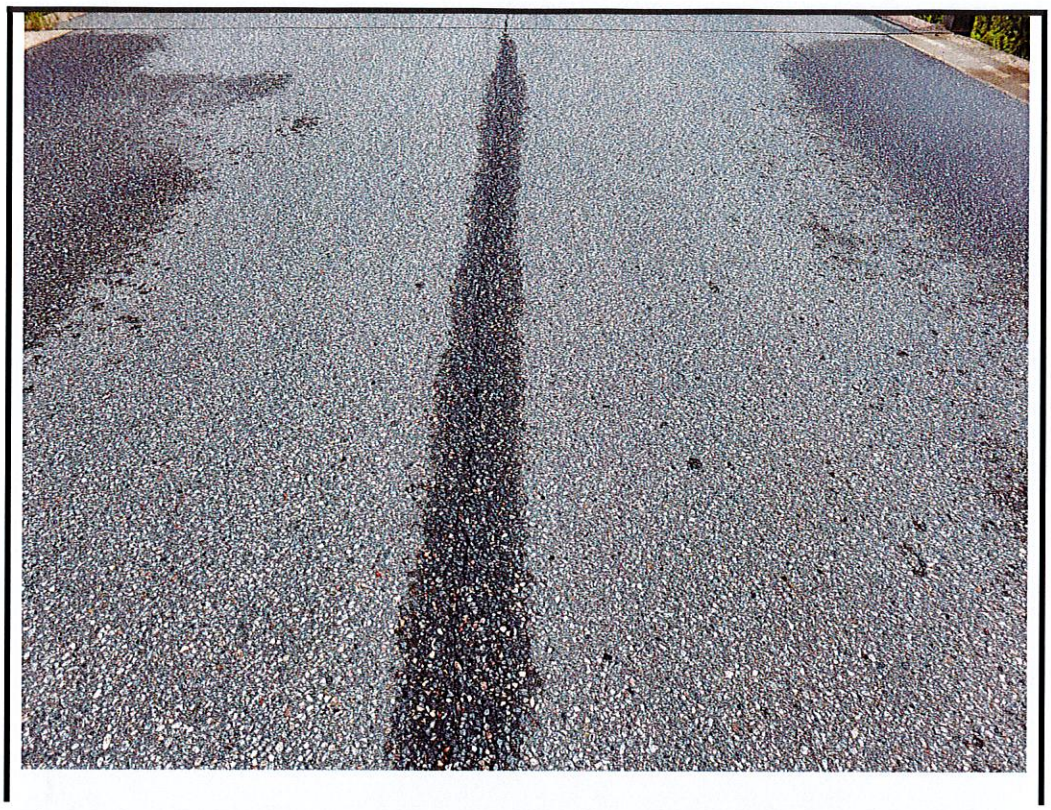

Photo 9 Wide longitudinal center-line crack on deck wearing surface

Photo 10 Hazard sign at SW approach is leaning and has minor dents and abrasions

Photo 11 Minor deformation and light corrosion on steel bearing plate, NE bearing

Photo 12 Localized coating failure (delamination) on girder ends

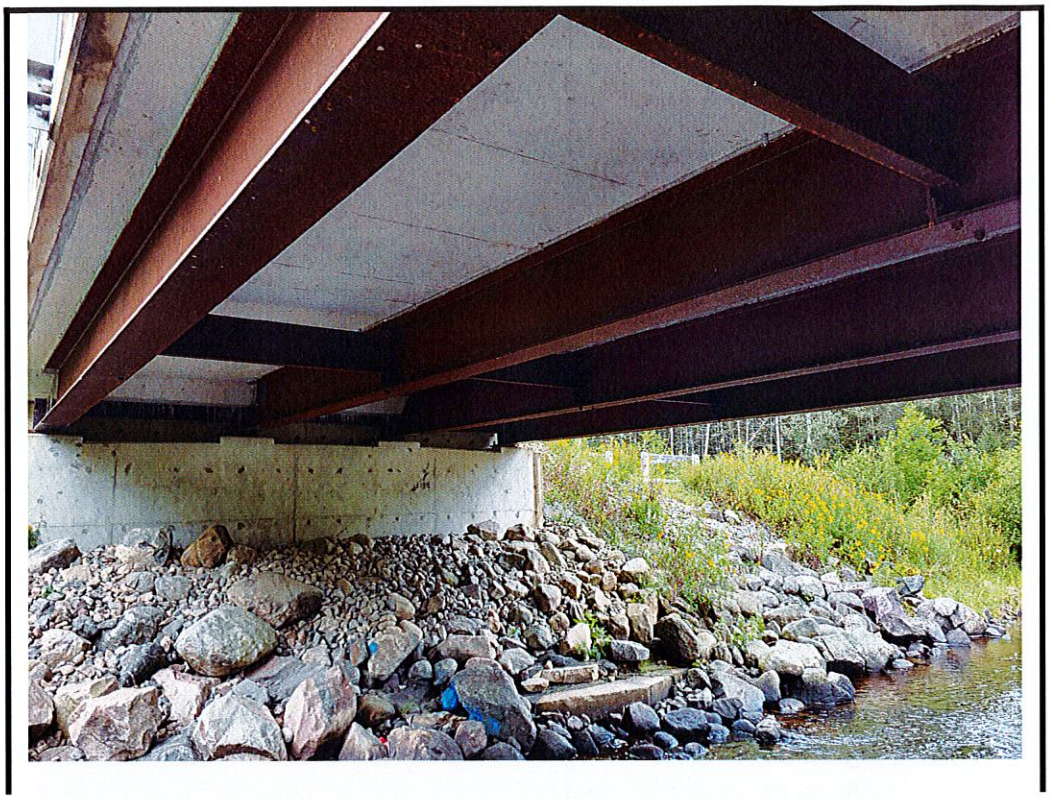

Photo 13 Typical underside of structure (girders, diaphragms, and soffit)

Photo 14 Damp staining on exterior soffit and wingwall SE corner of structure

Structure Condition Summary Form

Structure Name Crosses Bridge
Structure Number B6
Date of Inspection August 9, 2024
Project No.
Consultant HP Engineering Inc.

Element Group	Element Name	Unit (Qty.)	Unit Price (MTO)	Total Element Quantity	Element Qty. in Excellent Condition (1.00)	Element Quantity in Good Condition (0.75)	Element Quantity in Fair Condition (0.4)	Element Quantity in Poor Condition (0)	Total Replacement Value (TRV)	Current Element Value (CEV)	Element Condition Index	Performance Deficiency	Maintenance Need
Abutment	Abutment Walls	Sq.m	900.00	49.40	0.00	48.40	1.00	0.00	44460	33030	74	00	00
	Wingwalls	Sq.m	350.00	28.94	0.00	24.44	3.00	1.50	10129	6836	67	00	08
Approaches	Wearing Surface	Sq.m	6.00	102.00	0.00	91.00	10.00	1.00	612	434	71	00	18
Barriers	Railing Systems	m	200.00	37.20	0.00	0.00	18.60	18.60	7440	1488	20	08	18
Decks	Deck Top - Thick Slab	Sq.m	350.00	80.00	0.00	80.00	0.00	0.00	28000	21000	75	00	00
	Soffit - Thick Slab	Sq.m	350.00	88.00	0.00	81.50	5.00	1.50	30800	22094	72	00	08
	Wearing Surface	Sq.m	25.00	68.00	0.00	68.00	0.00	0.00	1700	1275	75	00	00
									123141	86156			

Bridge Condition Index (BCI) 70

I_t	0	Importance Factor for Traffic
I_c	0	Importance Factor for Economic Impacts
I_w	0	Importance Factor for Bridge Width
I_p	0	Importance Factor for Bridge Profile or Alignment

Bridge Sufficiency Index (BSI) 70

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGE **Site No.: B6**

INVENTORY DATA:

Structure Name	Crosses Bridge		
Main Hwy/Road #	Homestead Road	**Under Structure:**	Navigable Water ☐ Non- Navigable Water ☒ Rail ☐ Road ☐ Pedestrian ☐ Other ☐
Road Name:	Homestead Road	**On Structure:**	Rail ☐ Road ☒ Pedestrian ☐ Other ☐
Structure Location	1.21 km west of Daventry Road		
Latitude	46° 14' 29.6" N	Longitude	78° 50' 51.1" W
Owner(s)	Township of Calvin	Heritage Designation	Not Cons. ☒ Cons. /Not App. ☐ List/Not Desig. ☐ Desig./not List ☐ Desig. & List ☐
MTO Region	-	Road Class:	Freeway ☐ Arterial ☐ Collector ☐ Local ☐
MTO District	-	Posted Speed	- No. of Lanes 2
Old County	-	AADT	- % Trucks -
Geographic Twp.	-	Special Routes	Transit ☐ Truck ☐ School ☐ Bicycle ☐
Structure Type	Concrete Rigid Frame	Detour Length Around Structure	- (km)
Total Deck Length	8 (m)	Fill on Structure	- (m)
Overall Str. Width	10 (m)	Skew Angle	- (Degrees)
Total Deck Area	80 (m^2)	Direction of Structure	East/West
Roadway Width	8.5 (m)	No. of Spans	1
Span Lengths	8 (m)		

HISTORICAL DATA

Year Built	1983	Last OSIM Inspection	May 30, 2022
Year of Last Major Rehab.	-	Last Enhanced OSIM Inspection	-
Current Load Limit	- (tonnes)	Last Bridge Master Inspection	-
Load Limit By-Law #	-	Last Evaluation	-
By-Law Expiry Date	-	Last Underwater Inspection	-
Min. Vertical Clearance	- (m)	Last Condition Survey	-

Rehabilitation History: (Date / Description)

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGE **Site No.: B6**

FIELD INSPECTION INFORMATION	
Date of Inspection:	August 9, 2024 — Type of Inspection: ☒ OSIM ☐ Enhanced OSIM
Inspector:	Tashi Dwivedi, P.Eng., HP Engineering
Others in Party:	Derick Battrick, P.Eng., HP Engineering
Access Equipment Used:	Measuring Tape, Digital Camera and Hammer
Weather:	Overcast
Temperature:	23 °C

ADDITIONAL INVESTIGATION REQUIRED	Priority			Estimated Cost
	None	Normal	Urgent	
Rehabilitation/Replacement Study:		X		$ 5,000.00
Material Condition Survey	X			$ -
Detailed Deck Condition Survey:		X		$ 10,000.00
Non-destructive Delamination Survey of Asphalt- Covered Deck:	X			$ -
Concrete Substructure Condition Survey:	X			$ -
Detailed Coating Condition Survey:	X			$ -
Detailed Timber Investigation:	X			$ -
Underwater Investigation:	X			$ -
Fatigue Investigation:	X			$ -
Seismic Investigation:	X			$ -
Structure Evaluation:	X			$ -
Monitoring	X			$ -
Monitoring of Deformations, Settlement and Movements:	X			$ -
Monitoring Crack Widths:	X			$ -
Load Posting – Estimated Load Limit			**Total Cost**	**$ 15,000.00**

Investigation Notes:
Rehabilitation/replacement study is for traffic barrier only. A detailed deck condition survey is recommended due to the vintage of structure and condition of deck.

OVERALL STRUCTURAL NOTES:	
Recommended Work on Structure:	☐ None ☒ Minor Rehab. ☐ Major Rehab. ☐ Replace
Timing of Recommended Work:	☒ 1 to 5 years ☐ 6 to 10 years
Overall Comments: Structure is generally in good condition. Adequacy of existing traffic barrier should be verified. End treatments are substandard and should be replaced with code compliant end treatments. Potholes on wearing surface should be filled. Wide horizontal crack observed on half the length on north fascia. Medium to wide horizontal crack full length with some localized delamination and efflorescence noted on south fascia.	
Date of Next Inspection:	June 2026

Suspected Performance Deficiencies

00	None	06	Bearing not uniformly loaded/unstable	12	Slippery surfaces
01	Load carrying capacity	07	Jammed expansion joint	13	Flooding/channel blockage
02	Excessive deformations (deflections & rotation)	08	Pedestrian/vehicular hazard	14	Undermining of foundation
03	Continuing settlement	09	Rough riding surface	15	Unstable embankments
04	Continuing movements	10	Surface ponding	16	Other
05	Seized bearings	11	Deck drainage		

Maintenance Needs

01	Lift and swing bridge maintenance	07	Repair of structural steel	13	Erosion control at bridges
02	Bridge cleaning	08	Repair of bridge concrete	14	Concrete sealing
03	Bridge handrail maintenance	09	Repair of bridge timber	15	Rout and seal
04	Painting steel bridge structures	10	Bailey bridges maintenance	16	Bridge deck drainage
05	Bridge deck joint repair	11	Animal/pest control	17	Scaling (loose Concrete or ACR Steel)
06	Bridge bearing maintenance	12	Bridge surface repair	18	Other

BRIDGE **Site No.: B6**

ELEMENT DATA					
Element Group:	Approaches		**Length:**		NE 7.2m, NW 11.5m, SE 8.2m, SW 11.2m
Element Name:	Barrier		**Width:**		-
Location:	East & West Approaches		**Height:**		-
Material:	Steel		**Count:**		4
Element Type:	Steel Flex Beam on Wood Posts		**Total Quantity:**		38 m
Environment:	Severe		**Limited Inspection:**		☐
Protection System	Hot Dip Galvanizing				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m	-	-	19	19

Comments:
Abrasions observed throughout north and south guide rail. Rot and weathering noted throughout wooden posts. End treatments are substandard and should be replaced with code compliant end treatments. End treatments at northwest and southwest approaches are installed beyond the shoulder rounding.

Performance Deficiencies: 08 – Pedestrian/Vehicular Hazard	**Maintenance Needs:** 18 – Replace Damaged Rail Sections / Rotten Posts
Recommended Work: ☐ Rehab. ☒ Replace ☒ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☒ 1 Year ☐ 2 Years

Element Group:	Approaches		**Length:**		6 m
Element Name:	Wearing Surface		**Width:**		8.5 m
Location:	East & West		**Height:**		-
Material:	Gravel		**Count:**		2
Element Type:	Gravel Wearing Surface		**Total Quantity:**		102 m^2
Environment:	Severe		**Limited Inspection:**		☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	91	10	1

Comments:
Generally in good condition. Moderate vegetation growth in front of approach guiderail. Bump formed at west end of deck, east bound lane. Loose gravel noted on approaches.

Performance Deficiencies: 00	**Maintenance Needs:** 18 – Clear Vegetation, patch pothole
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☒ 1 Year ☐ 2 Years

ELEMENT DATA					
Element Group:	Accessories		**Length:**		-
Element Name:	Signs		**Width:**		-
Location:	Ends of Approach Guiderail		**Height:**		-
Material:	Plastic		**Count:**		4
Element Type:	White Plastic Markers		**Total Quantity:**		4
Environment:	Severe		**Limited Inspection:**		☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	3	-	1

Comments:
Generally in good condition. The markers appear to have been placed to mark the end of the approach guardrail as a hazard. Official hazard signs are recommended. Southeast markers have fallen over.

Performance Deficiencies: 00	**Maintenance Needs:** 18- Install New hazard signs
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☒ 1 Year ☐ 2 Years

Element Group:	Barriers		**Length:**		18.6 m
Element Name:	Railing Systems		**Width:**		-
Location:	North & South of Sides of Structure		**Height:**		-
Material:	Steel		**Count:**		2
Element Type:	Steel Flex Beam on Wood Posts		**Total Quantity:**		37.2 m
Environment:	Severe		**Limited Inspection:**		☐
Protection System	Hot Dip Galvanizing				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m	-	-	18.6	18.6

Comments:
Minor dents and abrasions on the steel flex beam with some cracks and deterioration of grout pads. Wood posts exhibit rot and weathering. Adequacy of existing traffic barrier should be reviewed. Some grout pads covered in debris.

Performance Deficiencies: 08	**Maintenance Needs:** 18- Clear debris
Recommended Work: ☐ Rehab. ☒ Replace ☒ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☒ 1 Year ☐ 2 Years

ELEMENT DATA					
Element Group:	Decks		**Length:**	8 m	
Element Name:	Wearing Surface		**Width:**	8.5 m	
Location:	Top of Deck		**Height:**	-	
Material:	Gravel		**Count:**	1	
Element Type:	Gravel Wearing Surface		**Total Quantity:**	68 m^2	
Environment:	Severe		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	68	-	-

Comments:
Wearing surface is generally in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Decks		**Length:**	8 m	
Element Name:	Deck Top (Covered)		**Width:**	10 m	
Location:	Top of Deck		**Height:**	-	
Material:	Concrete		**Count:**	1	
Element Type:	Thick Slab		**Total Quantity:**	80 m^2	
Environment:	Moderate		**Limited Inspection:**	☒	
Protection System	Gravel Wearing Surface				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	80	-	-

Comments:
Based on the condition of the wearing surface and the underside of the deck, the deck top is assumed to be in good condition. Narrow longitudinal cracks observed on exposed edges of deck.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

ELEMENT DATA					
Element Group:	Decks		**Length:**		8 m
Element Name:	Soffit – Thick Slab (Exterior)		**Width:**		1 m
Location:	North & South Underside of Structure		**Height:**		0.5 m
Material:	Concrete		**Count:**		2
Element Type:	Thick Slab		**Total Quantity:**		24 m^2
Environment:	Moderate		**Limited Inspection:**		☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	17.5	5	1.5

Comments:

Wide horizontal crack observed on half the length on north fascia. Medium to wide horizontal crack full length with some localized delamination and efflorescence noted on south fascia. Efflorescence, rust and damp stains noted. Narrow longitudinal cracks with efflorescence on north and south underside of the exterior soffit.

Performance Deficiencies: 00	**Maintenance Needs:** 08
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☒ 2 Years

Element Group:	Decks		**Length:**		8 m
Element Name:	Soffit – Thick Slab (Interior)		**Width:**		8 m
Location:	Underside of Structure		**Height:**		0.5 m
Material:	Concrete		**Count:**		1
Element Type:	Thick Slab		**Total Quantity:**		64 m^2
Environment:	Benign		**Limited Inspection:**		☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	64	-	-

Comments:

Generally in good condition.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

ELEMENT DATA					
Element Group:	Abutments		**Length:**	-	
Element Name:	Wingwalls		**Width:**	5.4 m	
Location:	NE, NW, SE & SW of Structure		**Height:**	1.34 m	
Material:	Concrete		**Count:**	4	
Element Type:	Reinforced Concrete Wingwall		**Total Quantity:**	28.94 m^2	
Environment:	Benign		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	24.44	3	1.5

Comments:
Generally in good condition with narrow map cracks, localized delamination, damp stains and efflorescence. Heavy efflorescence observed at southwest wingwall.

Performance Deficiencies: 00	**Maintenance Needs:** 08
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☒ 2 Years

Element Group:	Abutments		**Length:**	2.47 m	
Element Name:	Abutment Walls		**Width:**	10 m	
Location:	East & West Underside of Structure		**Height:**	-	
Material:	Concrete		**Count:**	2	
Element Type:	Reinforced Concrete Abutment		**Total Quantity:**	49.4 m^2	
Environment:	Benign		**Limited Inspection:**	☐	
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	m^2	-	48.4	1	-

Comments:
Generally in good condition with a small medium crack, damp stains and efflorescence at the top of the south end of the west abutment wall. Narrow vertical cracks and efflorescence noted throughout.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B6**

ELEMENT DATA					
Element Group:	Foundations			**Length:**	-
Element Name:	Foundation (Below Ground Level)			**Width:**	-
Location:	Below Abutment Walls			**Height:**	-
Material:	Concrete			**Count:**	-
Element Type:	Strip Footing			**Total Quantity:**	-
Environment:	Benign			**Limited Inspection:**	☒
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	N/A	-	-	-	-

Comments:
No visible evidence of foundation instability at the time of inspection.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

Element Group:	Embankments and Streams			**Length:**	-
Element Name:	Embankments			**Width:**	-
Location:	NE, NW, SE & SW of Structure			**Height:**	-
Material:	Native Soil			**Count:**	4
Element Type:	Embankment			**Total Quantity:**	4
Environment:	Moderate			**Limited Inspection:**	☐
Protection System	Slope Protection				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	Each	-	4	-	-

Comments:
Generally in good condition with a few large stones at base of embankments. Embankments are moderately sloped, well vegetated, and appear stable.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

BRIDGE **Site No.: B6**

ELEMENT DATA					
Element Group:	Embankments and Streams			**Length:**	-
Element Name:	Slope Protection			**Width:**	-
Location:	NE, NW, SE & SW of Structure			**Height:**	-
Material:	Rock			**Count:**	4
Element Type:	Rock Protection			**Total Quantity:**	4
Environment:	Moderate			**Limited Inspection:**	☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	All	-	-	4	-

Comments:
Slope protection is in generally fair condition. Slope protection consists of a few large stones positioned at the base of embankments. Addition of small stones to prevent erosion around the large stone that are present.

Performance Deficiencies: 00	**Maintenance Needs:** 18 - Reinstate Slope Protection
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☒ 2 Years

Element Group:	Embankments and Streams			**Length:**	-
Element Name:	Streams and Waterways			**Width:**	-
Location:	Below Structure			**Height:**	-
Material:	Native			**Count:**	-
Element Type:	Streams			**Total Quantity:**	All
Environment:	Benign			**Limited Inspection:**	☐
Protection System	None				
Condition Data:	**Units**	**Excellent**	**Good**	**Fair**	**Poor**
	All	-	All	-	-

Comments:
High volume, low flow from south to north with no visible flow obstructions noted at the time of inspection.

Performance Deficiencies: 00	**Maintenance Needs:** 00
Recommended Work: ☐ Rehab. ☐ Replace ☐ 1 – 5 Years ☐ 6 – 10 Years	**Maintenance Needs:** ☐ Urgent ☐ 1 Year ☐ 2 Years

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGE **Site No.: B6**

REPAIR AND REHABILITATION REQUIRED		Priority			Estimated Cost
Element	**Repair and Rehabilitation Required**	**6 - 10 Years**	**1 - 5 Years**	**< 1 year**	
Approach Barrier	Install new approach guiderail and approved end treatments			X	$ 48,000.00
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
				Total Cost	**$ 48,000.00**

ASSOCIATED WORK	Comments	Estimated Cost
Approaches		
Detours		
Traffic Control		
Utilities		
Right of Way		
Environmental Study		
Other		
Contingencies		
	Total Cost	**$ -**

JUSTIFICATION

Photo 1 Structure from east approach

Photo 2 Structure from west approach

Photo 3 East approach from center of structure

Photo 4 West approach from centre of structure

Photo 5 North elevation

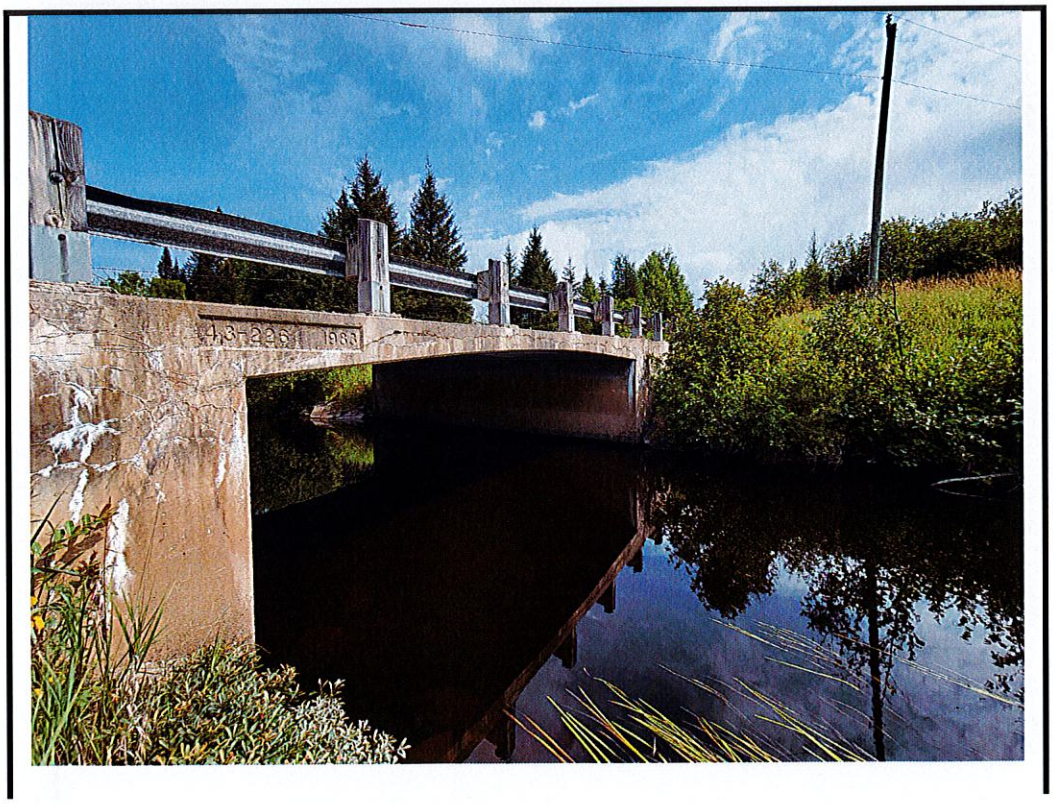

Photo 6 South elevation

Photo 7 Substandard end treatment at south east approach barrier

Photo 8 Deformed steel beam deck barrier on north edge of deck

Photo 9 Dents, abrasions, and substandard end treatment on NW approach guide rail

Photo 10 Wide horizontal cracks and isolated concrete delamination on north soffit exterior

Photo 11 Horizontal and vertical cracks with efflorescence and small spall on SW wingwall

Photo 12 Wide horizontal cracks with efflorescence on south exterior soffit

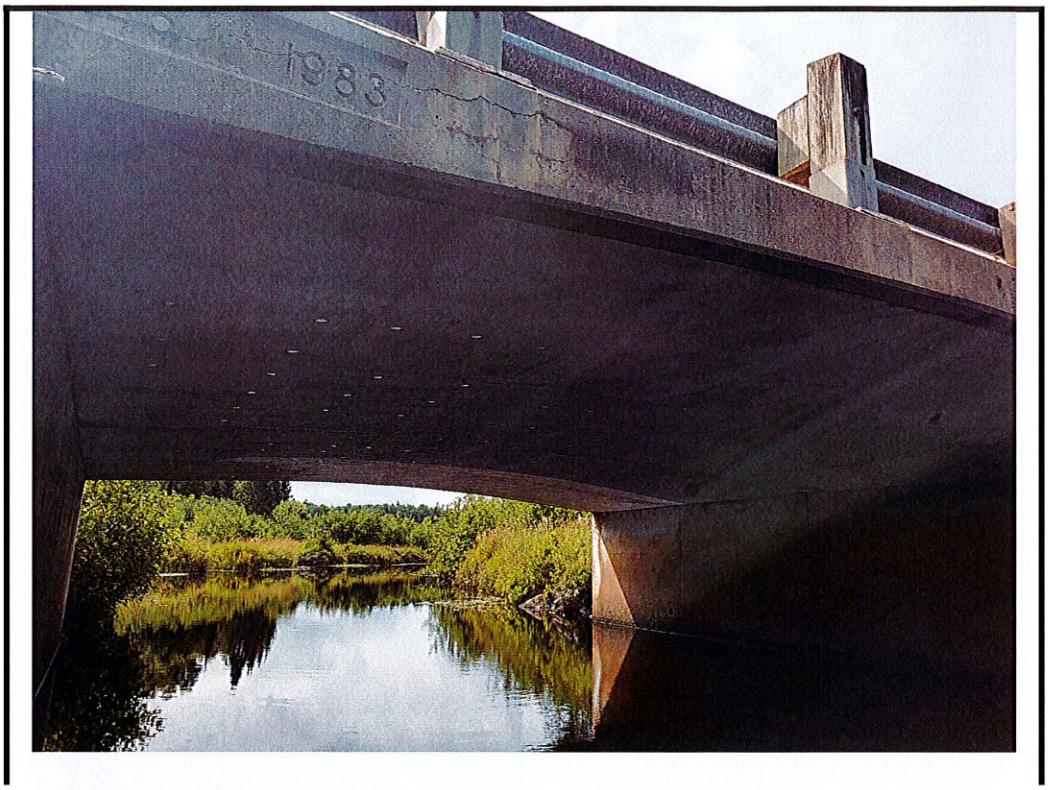

Photo 13 Light scaling on deck soffit

Photo 14 Narrow map cracks on SE wingwall