

Enhancing our communities



Bridge Inspections

TOWN OF PARRY SOUND

Inspection Summary Report

File 222534 | January 12, 2023

Document Control

File:

Prepared by:

220555	Tatham Engineering Limited	The Town of Parry Sound							
	8 Barron Drive	52 Seguin Street							
Date:	Bracebridge, Ontario P1L 0A1	Parry Sound, Ontario P2A 1B4							
January 12, 2023	T 705-645-7756 tathameng.com								



Prepared for:

Disclaimer Copyright The information contained in this document is solely for the use of the Client identified on the cover sheet for the contract between the Owner/Client and This document may not be used for any purpose other than that provided in the contract between the Owner/Client and		
The information contained in this document may not be used for any document is solely for the use of the Client identified on the cover sheet for the contract between the Owner/Client and	Disclaimer	Copyright
purpose for which it has been prepared and Tatham Engineering Limited undertakes no duty to or accepts any responsibility to any third party who may rely upon this document. the Engineer nor may any section or element of this document be removed, reproduced, electronically stored or transmitted in any form without the express written consent of Tatham Engineering Limited.	The information contained in this document is solely for the use of the Client identified on the cover sheet for the purpose for which it has been prepared and Tatham Engineering Limited undertakes no duty to or accepts any responsibility to any third party who may rely upon this document.	This document may not be used for any purpose other than that provided in the contract between the Owner/Client and the Engineer nor may any section or element of this document be removed, reproduced, electronically stored or transmitted in any form without the express written consent of Tatham Engineering Limited.

Issue	Date	Description
1	January 12, 2023	Inspection Summary Report

Table Contents

1	Introduction	1
2	Inspection Summaries	3
2.1	Seguin Street Bridge	3
2.2	Seguin River Pedestrian Bridge	4
2.3	Cascade Street Bridge No.1	5
2.4	Cascade Street Bridge No.2	5
2.5	Waubuno Street Bridge	6
3	Recommendations	7

Tables

Table 1: Bridge Locations	1
Table 2: Rehabilitation Costs	7

Appendices

Appendix A: Definitions Appendix B: OSIM Forms

1 Introduction

Tatham Engineering Ltd. was retained by the Town of Parry Sound to perform Detailed Visual Inspections (DVI) for 5 bridges at various locations within town limits. This work is required in compliance with Ontario Regulation (O.Reg.) 104/97 as amended by O.Reg. 472/10. This regulation states that bridges are to be inspected every two years and these inspections are to be conducted in general accordance with the Ontario Structure Inspection Manual (OSIM). The objectives of this work are to:

- Identify maintenance, repair, rehabilitation needs and load limit posting recommendations to protect and prolong the useful life of the structures; and
- Provide a basis for a management system for the planning and funding of the recommended works.

The bridges that were inspected are listed in Table 1.

BRIDGE NAME	ROAD NAME	LOCATION
Seguin Street Bridge	Seguin Street	0.08 km West of River Street
Seguin River Pedestrian Bridge	Fitness Trail	0.10 km South of Seguin Street over Seguin River
Cascade Street Bridge No.1	Cascade Street	0.10 km East of Water Street
Cascade Street Bridge No.2	Cascade Street	0.02 km East of Water Street
Waubuno Street Pedestrian Bridge	Fitness Trail	Waubuno Street at Georgian Bay

Table 1: Bridge Locations

The DVI's involve an element-by-element inspection of the structure. Elements are reviewed and their condition and performance are assessed based on observations made by the inspector. The inspection and terminology are in general accordance with the Ontario Ministry of Transportation (MTO) OSIM guidelines, available online under "MTO Technical Documents" at: https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/TechnicalPublications.aspx

In order to convey the results of the visual inspections, certain terms are used to identify particular deficiencies with respect to material condition and defects. Definitions of these terms can be found in the OSIM. Material defects and severity are classified and quantified, then the severity is translated to a condition state of Excellent, Good, Fair, or Poor. For example, a defect could consist of concrete scaling with a severity of Light, Medium, Severe or Very Severe. These severities are then translated to the OSIM defined condition states. Material Defects can be found in the OSIM Part 1 Section 1.2 Material Defects. Part 1 also provides material defects for various elements and associated materials. Part 2 Section 2.4 Material Condition States, 2.5 Suspected

Performance Deficiencies, and Section 2.9 Appendix A – Combined Summary of Material Defects and Condition States provide guidelines for determining the appropriate condition state of Excellent, Good, Fair, or Poor.

Maintenance needs, rehabilitation, or replacement recommendations are then determined with associated time frames to assist the Town with prioritization of the work.

This report summarizes the results of the detailed visual inspections and provides costing and scheduling information for the recommended works. A brief listing of terms used to identify deficiencies with respect to condition or performance states are provided in Appendix A.

2 Inspection Summaries

The following summarizes the inspection observations and recommendations. In addition to the deficiencies addressed by the recommended works, a complete compilation of condition and performance information for each bridge can be found in the OSIM reports which include photos of each element. These reports are included in Appendix B.

Recommended works are categorized into maintenance or rehabilitation work. These categorizations are intended to differentiate between smaller scale maintenance work that could be completed by the Town's works department, and larger scale rehabilitation work that may require engineering design and tendering of the construction works. Additional Investigations such as Material Condition Surveys, Underwater investigations, Structure Evaluations, etc. are identified both in the summaries below and the OSIM reports, along with recommendations for Enhanced OSIM Inspections which typically consist of the use of a Bridgemaster or similar bucket truck to enable a close-up within arms reach of all areas of the structure.

2.1 SEGUIN STREET BRIDGE

The 55.0 m single span structure consists of a concrete deck on three trapezoidal weathering steel box girders supported on concrete abutments. The east abutment is founded on steel H-piles driven to bedrock, and the west abutment is founded on concrete footings on bedrock. The bridge is 20.6 m wide out-to-out with a clear roadway width of 15.0 m.

The bridge is in generally good condition. The sidewalks are exhibiting spalling and delaminations. The interior girder ends are corroding, with debris and moisture contributing to the deterioration. It is proposed the next OSIM inspection occur in 2024.

The following Additional Investigation is recommended:

• A Bridge Master inspection of the exterior of the girders (2 Years).

The following maintenance is recommended:

- Replace northeast approach barrier connection with standard connection (2 Years).
- Annual bridge cleaning, particularly the deck joints (1 Year).

The following rehabilitation is recommended:

- Sidewalk Concrete Repair: Includes spalls and delaminations (1-5 Years).
- Interior Girder Ends: Clean and recoat steel inside boxes to mitigate continued corrosion (1-5 Years).

2.2 SEGUIN RIVER PEDESTRIAN BRIDGE

The Seguin River Pedestrian Bridge is located on a fitness trail that was converted from a former railway bed, essentially rails to trails. It is approximately 0.1 km south of the Seguin Street Bridge and crosses the Seguin River. The 96.5 m 12-span structure consists of nine eastern timber trestles, followed by a steel through-plate girder span, a deck on steel girder span, and another steel through-plate girder span.

The bridge is in generally good to fair condition with localized areas in poor condition. Barrier height should be increased to 1.37 m to meet CHBDC requirements for cyclists, however 1.2 m may be used based on owner approval. It is proposed that the next OSIM inspection occur in 2024.

The following Additional Investigation is recommended:

- An Underwater Investigation of the piers to confirm condition (2 Years).
- During a 2012 inspection, low water levels revealed timber cribbing supporting the concrete piers. Based on visual observations from boat access, deterioration of the timber was evident and due to condition and age an Underwater Investigation is recommended with a Priority of Normal, i.e., usually within 2 years.

The following maintenance is recommended:

- Clean off debris from west abutment bearing seats (1 Year).
- Ongoing timber member replacements (1 Year).

The following rehabilitation is recommended:

- Span 12 steel repairs (6-10 Years).
- West abutment concrete repair (6-10 Years).
- Three concrete piers concrete repair (6-10 Years).

2.3 CASCADE STREET BRIDGE NO.1

The two span 26.5 m structure consists of precast concrete box girders supported on concrete abutments and pier. The bridge is 11.2 m wide out to out with a clear roadway width of 8.5 m.

The bridge is in generally good condition. There is concrete deterioration along the top and front curb face of the sidewalk, and along the east and west exterior soffits. There are spalls and delaminations of girder soffit concrete at the girder ends. The asphalt is beginning to exhibit deterioration including rutting and cracks. No Additional Investigations are recommended at this time. It is proposed the next OSIM inspection occur in 2024.

The following maintenance is recommended:

- Repair punctured railing (2 Year).
- Replace damaged guide rail sections, rotten wood post, install end treatments (2 Year).
- Annual bridge cleaning (1 Year).

The following rehabilitation is recommended:

- Sidewalk top surface and face of curb concrete repair (1-5 Years).
- East and West exterior soffit concrete repair (1-5 Years).
- Girder soffit ends concrete repair (1-5 Years).
- Replace asphalt wearing surface, apply waterproofing membrane (1-5 Years).

2.4 CASCADE STREET BRIDGE NO.2

The 10.0 m span is a concrete rigid frame structure with vertical legs. The bridge is 11.2 m wide out to out and has a clear roadway width of 8.0 m.

The bridge is in excellent to good condition. The asphalt is beginning to exhibit deterioration including rutting and cracks. No Additional Investigations are recommended at this time. There is no rehabilitation recommended. It is proposed the next OSIM inspection occur in 2024.

The following maintenance is recommended:

- Upgrade barrier connections to structure at north quadrants (2 Years).
- Replace missing end caps on structure barrier (2 Years).
- Repair concrete void in south abutment wall (2 Years).
- Repair void at bottom of retaining wall (2 Years).
- Repair north approach asphalt (2 Years).
- Annual bridge cleaning (1 Year).

2.5 WAUBUNO STREET BRIDGE

The Waubuno Street Bridge is located along the Parry Sound Fitness trail and crosses Waubuno Street at Georgian Bay. It is a timber girder bridge with timber plank deck, timber barriers, and timber trestle supports. The structure has 3 spans of 3.73 m, 4.18 m, and 3.53 m each. The travelled width is 3.2 m, and the overall width is 3.6 m out to out. It is currently used by pedestrian and snowmobiles.

The bridge is in generally good to fair condition; However, there are a number of elements exhibiting deterioration and rot. No Additional Investigations are recommended at this time. It is proposed the next OSIM inspection occur in 2024.

The following maintenance is recommended:

- Fasten loose deck planks (1 Year).
- Relocate No Motorized Vehicles signs to be more visible (1 Year).

The following rehabilitation is recommended:

- Replace deteriorated deck planks (1-5 Years).
- Replace deteriorated curbs (1-5 Years).
- Replace deteriorated stringers (1-5 Years).
- Replace south abutment ballast wall (1-5 Years).
- Replace north abutment deteriorated sills (1-5 Years).
- Replace deteriorated pier columns (1-5 Years).

3 Recommendations

Overall, these five structures are in generally good to fair condition. The following is a brief summary of key recommendations.

Seguin Street Bridge: Sidewalk concrete repairs, steel girder interior ends rehabilitation. Bridge Master inspection of the exterior of the girders estimated at \$20,000.

Seguin River Pedestrian Bridge: Span 12 steel repairs, all pier concrete repairs, west abutment concrete repair. Underwater Investigation of the piers estimated at \$20,000.

Cascade Street Bridge No. 1: Sidewalk and exterior deck soffit concrete repairs, asphalt replacement.

Cascade Street Bridge No. 2: Various maintenance items.

Waubuno Street Bridge: Timber replacement for stringers, pier columns, south abutment, and north abutment sills.

The following table summarizes rehabilitation costs, they do not include maintenance or Additional Investigation costs.

	REHABIL	ITATION
STRUCTURE	YEAR	СОЅТ
Seguin Street Bridge	1-5 Years	\$271,000
Seguin Street Pedestrian Bridge	6-10 Years	\$1,047,000
Cascade Street Bridge No. 1	1-5 Years	\$825,000
Cascade Street Bridge No. 2	N/A	\$0
Waubuno Street Bridge	1-5 Years	\$140,000

Table 2: Rehabilitation Costs

We trust the above is sufficient for your purposes. If you have any questions or comments regarding the above, please do not hesitate to contact our office.

Appendix A: Definitions

Definitions

To convey the results of the visual inspections, defined terms are used to identify deficiencies with respect to condition or performance states. These terms are used in accordance with the OSIM guidelines and are defined below for clarification.

CONCRETE

Delamination: A discontinuity of the surface concrete which is substantially separated but not completely detached from concrete below or above it.

Efflorescence: A deposit of salts, usually white and powdery, on the surface of concrete left behind where water percolates through the concrete and dissolves or leaches chemicals from it.

Honeycombing: The result of improper or incomplete vibration of the concrete which results in voids being left in the concrete where the mortar failed to completely fill the spaces between the coarse aggregate particles.

Scaling: The local flaking, or loss of the surface portion of concrete or mortar as a result of the freeze-thaw deterioration of concrete. It is common in non air-entrained concrete but can also occur in air-entrained concrete in the fully saturated condition. It is prone to occur in poorly finished or overworked concrete where too many fines and not enough entrained air is found near the surface.

Scour: The removal of material from the stream bed or bank due to the erosive action of moving water in the stream. Scour can also cause removal of material supporting foundations.

Spalling: This is a continuation of the delamination process whereby the actions of external loads, pressure exerted by the corrosion of reinforcement or by the formation of ice in the delaminated area results in the breaking off of delaminated concrete. Spalling may also be caused by overloading of the concrete in compression.

WOOD

Wear and Abrasion: Wear is usually the result of dynamic and/or frictional forces generated by vehicular traffic, coupled with abrasive influx of sand, dirt and debris. It can also result from the friction of ice or water-borne particles against partly or completely submerged members. Abrasion is the deterioration of concrete brought about by vehicles or snow-plough blades scraping against concrete surfaces such as decks, curbs, barrier walls or piers.

Checks and Splits: Checks are longitudinal tissue separations along the side grain of wood members occurring across or through the annual growth rings. Splits are similar to checks, with more tissue separations, extending either through the wood member or from the side into the end grain, typically at the ends of the wood member.

Connection Deficiencies: connections loosened due to repetitive or dynamic loads, wear or decay of members.

Cracking, Splintering, Crushing and Shattering: physical damage as a result of impact loading or overloading of a member.

Fire and Chemical Damage: damage resulting from fire or from the use of non-preservative chemicals on the wood surface over a long period of time.

Insect Damage: Loss of section caused by tunnelling/boring by insects or larvae.

Rot or Decay: decomposition of wood.

Shakes: tissue separation that follow the growth rings and are visible at the ends of wood members.

Splits: severe separations similar to checks, extending to the ends of wood members.

Weathering: this occurs as a result of exposure to the actions of sun, rain, wind, frost and atmospheric pollutants, resulting in the gradual deterioration of the wood.

STEEL

Connection Deficiencies: loose connections, cracking or excessive corrosion of the connector, gusset plate or fasteners.

Corrosion: The deterioration of steel by chemical or electro-chemical reaction resulting from exposure to air, moisture, de-icing salts, industrial fumes and other chemicals and contaminants in the environment in which it is placed.

Cracking: linear fractures in steel extending partly or completely through the member.

Permanent Deformations: bending, buckling, twisting or elongation.

Patina: A relatively smooth rust layer, formed on weathering steel, which protects the underlying metal from further corrosion.

Appendix B: OSIM Forms

					MTO Site Number:		
Inventory Data:							
Structure Name	Cascade Street B	ridge No.1					
Main Highway #	Cascade Street	On X or Under Structure	Service on Structure	Navig.	Water Non-Navig	g. Water	er
Location Description	0.05 km east of Wa	ater Street	Service under:	Navig.	Water X Non-Navig	g. Water	er
Owner/Custodian	Town of Parry Sou	ind					
MTO Region	Northeastern		Latitude	45° 21' 01"	N Longitude	80° 01' 3	4"W
Regional Engineer			Heritage Designation:	X Not Co Desig.	ons. Cons./Not App Desig./Not List). List/ Desig. & List	Not Desig.
MTO Area	52 - Huntsville		Hwy Class:	Freeway	Arterial X Collect	tor 📃 Lo	ocal
Old County	44 - Parry Sound		Posted Speed	40	No. of Lanes	2	
Township	452 - McDougall		AADT	Unknow	wn % Truck	Unkno	wn
Structure Type 1	Box beam girders	\$					
Structure Material 1	Concrete		Traffic Directional	Bound	N-S		
Structure Type 2	Concrete Deck						
Structure Material 2	Concrete		Inspection Freque	ncy	2	(years)	
Total Deck Length	52.9	(m)	Inspection Year		2022		
Overall Str. Width	11.2	(m)	Inspection Duratio	n	2	(hrs)	
Culvert Length		(m)					
Total Deck Area	592.5	(sq.m)					
Roadway Width	8.5	(m)	Min. Vertical Clear	rance		(m)	
Skew Angle		(Degree)	Detour Distance		2.2	(km)	
No. of Spans	2		Fill on Structure		N/A	(m)	
Span Lengths	26.45, 26.45					(m)	
For retaining wall:							
Total Wall Length		(m)	Max. Wall Height			(m)	
Total Wall Area		(sq.m)	Ave. Wall Height			(m)	
			Angle of Backfill			(Degree	es)
Historical Data							
Year Built	1981		Year of superstruc	ct. Constructed	N/A		
Last Reg. OSIM Inspe	ection 2020		Year of Last Minor	r Rehab.	N/A		1
Last Enh. USIM Inspe	ection		Year of Last Major	r Rehab	2009	1	(tonnes)
Work History: (Date/d	lescription)			Investigatio	/ on History: (Date/descriptic	/ vn)	(tonnes)
						-	

MTO Site Number:												
Field Inspection Infor	mation:											
Date of Inspection:	Ju	ıne 30, 2022	Type of	Inspectio	XF	Reg. OSIM Enh. OSIM						
Inspected By	AI	ison Friebel	-									
Others in Party:	No	one										
Eng. Access Equipment:	Ca	amera, Tape measure, Hammer										
Special Access Equipment	No	10										
Weather	Si	un/Cloud	Tempera	iture						21 °C		
Additional Investigati			None	Pr I No	iority ormal I	Uraent	-	Estimated Co	ost			
Material Condition Survey					X			- 0	+			
Detailed Deck Conditio	n Survev:				Х				-			
Non-destructive Delam	ination Survey of	of Asphalt-Covered De	eck:		Х				-			
Concrete Substructure	Condition Surve	.			Х				+			
Detailed Coating Cond	ition Survey				X				+			
Detailed Timber Investi	nation:				X				+			
Post-Tensioned Strand	Investigation:				X				+			
Underwater Investigation	investigation.				X				+			
Entique Investigation					X				+			
Colomia Investigation					×				+			
Seismic investigation									—			
Structure Evaluation.					X				—			
Monitoring		4			X				—			
Deformations, Settleme	ents and Movem	ients:			X				—			
Crack Widths:					X				—			
RSS Horizontal movem	nents of face:				X				—			
RSS Vertical movemen	its of overall stru	ucture:			X				—			
RSS Local movements	or deterioration	of face elements:			Х				—			
RSS Horizontal mover	nents within over	rall structure:			Х				\square			
RSS Vertical movemen	ts within overall	structure			Х							
RSS Lateral earth pres	sure at the back	of facing elements			Х							
Investigation Notes:					Total Cost \$0.00				\$0.00			
Overall Structure Not	es:				1							
Recommended Work on St	ructure	None X Mi	nor Rehab		Major Rehab	. [Repl	ace				
Timing of Recommended W	/ork	Urgent X	1 to 5 ye	ars	6 to 10 y	ears						
Overall Comments		The bridge in in gen	nerally doo	d condit	tion. Rehabili	tation	is recor	nmended	for the	sidewalk ex	cterior	
overali oonimenta.		soffits, and areas of exhibit deterioration	f the girde n with 35%	r soffit a	t the girder e otal area in fa	nds. 1 air cor	The asph ndition.	alt wearin	g surfa	ace is startin	g to	
Data af N. 11		0004										
Date of Next inspection:		2024	_									
Overall Bridge Co	ndition											
% Poor in Deck	% Poor in Bea	ms % Poor in Sub	structure	% F	Poor in Barrier		Brid	ge Conditio	on Inde	ex (BCI or BCI	ip)	
1%	1%	0%			2%	ſ		BClp 99.07		BCI 73.49)	
Overall Bridge Su	fficiency	•										
Traffic	Economic	Width	_		Alignment			Bridge Suff	iciency	/ Index (BSI)		
0	3	0		0				70.49				

Element Data:									
Element Group:	Decks			Length:		52.8	8		
Element Name:	Wearing Sur	face		Width:		8.5			
Location:	Deck			Height:		0.1			
Material:	Asphalt			Count:	Count:				
Element Type:			Total Quant	ity:	448	.8			
Environment:	Severe			Inspected			Yes X N	o limited	
Protection System:				-				Performance	
Condition Data:	Units	Exce	ellent	Good	Fair		Poor*	Deficiencies	
Condition Data: sq.m 333.2 115.6									
Recommended Wo	n of light cracks general	ly within wheel lir	nes.	ace.	Maint	enance	Needs:		
					1				
Urgent:	1-5 Years:	6-10 Years:		None: X	Urgen	t:	1 Year:	2 Year:	
Description of P	hoto: Deck Weari	ng Surface							

Element Data:												
Element Group:	Decks				Length:		52.	8				
Element Name:	Deck Top (w	ith Thick Sl	ab)		Width:	Width: 11.2						
Location:	Deck	Deck					Height: 0.13					
Material:	Concrete				Count:							
Element Type:	Cast-in-Plac	e			Total Quan	tity:	59 <i>°</i>	1.4				
Environment:	Moderate				Inspected			Yes		No	limited X	
Protection System:	Waterproofi	ng and Aspł	halt			_					Performance	
Condition Data:	Units		Exceller	nt	Good	F	air		Poor*		Deficiencies	
Condition Data.	sq.m				591.4							
Comments: Limit good	l condition based on wea	indicate a c	e.	aistributi	on slad cast		precast	concre		ers. A	ssumed to be in	
Recommended Wo	ork:	Rehab:		Replace	:	Ma	aintenanc	e Need	s:			
Urgent:	1-5 Years:	6-10 Y	ears:		None: X] Urg	gent:] ·	1 Year:		2 Year:	
Description of P	hoto: Deck Top											

Element Data:												
Element Group:		Decks				Length:		52.9	9			
Element Name:		Soffit - Thin	Slab			Width:		11.2	2			
Location:						Height:		N/A				
Material:		Concrete and Precast Concrete Count:										
Element Type:		Cast-in-place ext. soffits, Precast Girders Total Quantity: 592.5										
Environment:		Benign				Inspected			Yes		No	limited X
Protection System	1:				_							Performance
Condition Data:		Units		Excellent		Good	F	air	ir Poor*			Deficiencies
	sq.m 567.5 10.0 15.0											
Comments:Limited inspection due to height. Light scaling, typical. Northeast fascia has 13 x 1.0m medium cracks with efflorescence, 4 areas of severe delamination with exposed rebar (8.0m x 500mm total) and 3 area of severe delamination (3 x 300 x 300mm). Northwest fascia has 14 x 1.0m medium cracks with efflorescence and 1 severe delamination with exposed rebar (3.0m x 300mm). Southwest fascia has 11 x 1.0m light cracks with efflorescence. Southeast fascia has 3 areas of severe delamination with exposed rebar (14.0m x 500mm total), 9 areas of 1.0m light to medium cracking with efflorescence and staining typical.												
Recommended W	ork:		Reh	ab: 🗴 Rep	place:		Ma	aintenance	e Need	ds:		
Urgent:	1-	5 Years: X	6-10) Years:		None:	Urg	gent:		1 Year:		2 Year:
Concrete repairs	for the exter	ior soffit cast	-in-place	e concrete								
Description of I	Photo:	Soffit Expose	ed Reba	r and Cracks wi	ith Ef	florescence,	Typical					



Element Data:											
Element Group:	Decl	ks			Le	ngth:					
Element Name:	Drai	nage System			Wi	dth:					
Location:	East	and West Side			He	ight:					
Material:	Cast	t Iron Grate - CSI	P Pipe		Co	unt:					
Element Type:					To	tal Quanti	ity:	4			
Environment:	Seve	ere			Insp	ected			Yes X] No	o limited
Protection System	: Cast	lron									Performance
Condition Data:	Un	its	Excelle	nt	Go	od	Fai	r	Po	or*	Deficiencies
Condition Data.	ea	ch				4					
Recommended W	ork:	Ret	nah.	Replac	ce.	1	Main	tenance	e Needs:		
									1		
Urgent:	1-5 Yea	ars: 6-1	0 Years:		N	one: X	Urgei	nt:	J 1Y	'ear:	2 Year:
Element Photo:											
Description of F	Photo: Dec.	k Drain									
Description of F	Photo: Dec	k Drain									

Element Data:																
Element Group:	5	Sidewalk/Curb)				Le	ength:			52.	.8				
Element Name:	5	Sidewalks and	l Media	ns			N	/idth:			1.8	}				
Location:	E	East and West	Sides				H	eight:			0.1	5				
Material:	0	Concrete					С	ount:			1					
Element Type:	(Cast-in-place					T	otal Quant	ity:		103	3.0				
Environment:	5	Severe					Ins	pected				Yes	X	No	limi	ted
Protection System:															Perf	ormance
Osadition Datas		Units		Exc	cellent	:	G	ood		Fair			Poor*		Defi	ciencies
Condition Data:		sq.m					ç	1.0		2.0			10.0			
Comments: Light		ical. Inree ger						on. 4 mec			ere s			age of	sidewa	к.
Recommended Wo	ork:		Reh	ab: X		Replac	:e:			Mainte	enanc	e Ne	eds:			
Urgent:	1-5	Years: X	6-10) Years:			١	lone:		Urgent	:		1 Yea	r:	2 Y	ear:
Repair concrete						•										
Element Photo:																
Description of P	hoto:	Sidewalk														



Element Data:							
Element Group:	Barriers		Length:	2.	4		
Element Name:	Railing Systems		Width:				
Location:	East and West Side		Height:	1.	12		
Material:	Aluminum		Count:	50)		
Element Type:	4 Rail Metal Railing -	Aluminum	Total Quant	ity: 12	20.0		
Environment:	Severe		Inspected		Yes	No	limited
Protection System:				I			Performance
	Units	Excellent	Good	Fair	Poor	*	Deficiencies
Condition Data:	m		115.6	2.4	2.0		
Comments: West rail has 1 and 3 deformat	x 2.0m and 1 x 400mm ions (1 x 100 x 100mm	of deformed sectio and 2 x 100 x 300m	n and 1 punctu m)	re. East rail has	s isolated are	as of me	dium abrasions
Recommended Work:	Reh	ab: Replac	e:	Maintenan	ce Needs:	3 - Raili	ing System Repair
Urgent:	I-5 Years: 6-10	0 Years:	None: X	Uraent:	1 Yea	ar:	2 Year: X
				Repair rail	ing		
Description of Photo:	East railing system						



Element Data:						
Element Group:	Beams/Main Longi	tudinal Elements	Length:		26.45	
Element Name:	Girders		Width:		1.20	
Location:	Below Deck		Height:		0.84	
Material:	Precast Concrete		Count:		16	
Element Type:	Box Girder		Total Quant	ity:	298.3	
Environment:	Benign		Inspected		Yes	No limited X
Protection System:			-			Performance
Condition Data	Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data:	sq.m		298.3	4.0	2.0	
Comments: Light scall several are delaminati	eas of 100 x 100mm delan ons. Light rebar staining	at girder ends typic	d of girder at abu	tment has 2 an	reas of 300 x 300	Omm severe
	K			Indintena	ance Neeus.	
Urgent:	1-5 Years: 🗴 6	-10 Years:	None:	Urgent:	1 Year:	2 Year:
Repair concrete						
Element Photo:						
Description of Photo	: Girder Soffit					

Element Photo:



Element Data:											
Element Group:	Abutments				Length:						
Element Name:	Abutment W	alls			Width:		11.	1			
Location:	North and Se	outh Ends			Height:		4.3				
Material:	Concrete				Count:		2				
Element Type:	Cast-in-plac	e			Total Quant	ity:	95.	5			
Environment:	Benign				Inspected			Yes	X	No	limited
Protection System	:										Performance
Condition Data:	Units		Excellent		Good	Fa	air		Poor*		Deficiencies
Condition Data.	sq.m				81.9	13	3.5		0.1		
medi cract	ium crack on older concr ks. 100 x 300 x25mm med ork:	ete sectior lium spall Rehat	n. South abutm with medium c	olace:	as 1 x 3.0m v led rebar at b	vertical n pottom of Ma	f south a	crack a abutme	nd 2 x 3 ent. s:	300m	m vertical light
Linnant [4.5.¥	C 40.)		-		l 11		1,			
					-		-	<u> </u>		1	
Element Photo:											
Description of P	Photo: North Abutn	nent									





Description of Photo: South abutment

Element Data:									
Element Group:	Abutments			Length:		6.7			
Element Name:	Wingwalls			Width:					
Location:	All Quadrant	S		Height:		4.3			
Material:	Concrete			Count:		4			
Element Type:	Cast-in-place	9		Total Quant	ity:	114.4			
Environment:	Benign			Inspected		Yes	No No	D limited	X
Protection System:								Performance	се
Condition Data:	Units	E	xcellent	Good	Fair		Poor*	Deficiencie	es
Condition Bata.	sq.m			114.3	0.1				
Comments: Northwe wall has	est and northeast wall s light scaling, typical.	s have light m Southwest wa	ap cracking all has a 300	j, typical. Northea Jmm medium cra	ist wall has l	light eros	ion at base i	or wall. Southeas	st
Recommended Work:		Rehab:	Repl	ace:	Mainte	nance Nee	eds:		
Urgent:	1-5 Years:	6-10 Year	rs:	None: X	Urgent:		1 Year:	2 Year:	
Element Photo:					·				
Description of Pho	to: Southeast w	ingwall							



Element Data:											
Element Group:	Piers				Length:		1.0)			
Element Name:	Shafts/Colur	nns/Pile Be	ents		Width:		9.0)			
Location:	Center Pier				Height:		6.2	2			
Material:	Concrete				Count:		1				
Element Type:	Cast-in-plac	9			I otal Qua	ntity:	21	3.0			
Environment:	Benign				Inspected			Yes		No	limited X
Protection System:								_		_	Performance
Condition Data:	Units		Excellent		Good		Fair		Poor*		Deficiencies
Condition Data.	sq.m				123.0						
Comments: Light side h	nas light corrosion, typic	al.		r.om ver					ar. Steer		nosing at east
Recommended Wo	rk:	Rehab	D: F	Replace:			Maintenand	ce Nee	ds:		
Urgent:	1-5 Years:	6-10 Y	/ears:		None:	(Urgent:		1 Year:		2 Year:
Element Photo:		STA SE	AGG	ER	36						
Description of Pl	h oto: Pier										

Element Data:															
Element Group:		Piers					Length:								
Element Name:		Bearings					Width:								
Location:		Center Pier				_	Height:								
Material:		Elastomeric				_	Count:			8					
Element Type:						-	Total Quant	ity:		8					
Environment:		Moderate				I	spected				Yes		No	X	nited
Protection System	:					_								P	erformance
Condition Data:		Units		Exce	llent		Good		Fair			Poor*		D	eficiencies
Condition Data.		each					8								
								_				_			
Recommended W	ork:		Reh	ab:	Rep	place:		Ν	Aainten	ance	Need	s:			
Urgent:	1-	5 Years:	6-10) Years:			None: X] [u	Irgent:			1 Year:		2	Year:
Element Photo:															
								1				R.			
Description of F	Photo:	Pier Bearing	S												

Element Data:												
Element Group:		Retaining Wa	alls			Length:		10	.0			
Element Name:		Walls				Width:						
Location:		SW Embankr	nent			Height:		1.2	2			
Material:		Gabion Bask	ets			Count:		1				
Element Type:		Rock				Total Quant	tity:	12	.0			
Environment:		Benign				Inspected			Yes	X	No	limited
Protection System	:											Performance
		Units		Excell	ent	Good	F	air		Poor*		Deficiencies
Condition Data:		sq.m				12.0						
Recommended W	ork:		Reh	ab:	Repla	ce:	Ма	intenand	ce Nee	eds:		
[<u> </u>						1		7			
	'		0-10				1 0.6			, i cai.		
Element Photo:									いた。「「「「「「「「「」」」」という。「「」」」			
Description of F	Photo:	Retaining Wa	all									

Element Data:										
Element Group:		Embankments & Stre	eams	Le	ngth:					
Element Name:		Streams and Waterw	ays	Wi	dth:					
Location:		East and West		He	ight:					
Material:		Bedrock		Co	unt:		All			
Element Type:				To	tal Quant	ty:	_			
Environment:		Benign		Insp	ected			Yes X N	10	limited
Protection System	:									Performance
		Units	Excellent	Go	bod	Fair		Poor*		Deficiencies
Condition Data:		all	X							
Comments: No c	bserved def	ects.								
Recommended W	ork:	Ref	nab: Replac	ce:		Mainter	nance	Needs:		
Urgent:	1-	5 Years: 6-1	0 Years:	N	one: X	Urgent:		1 Year:		2 Year:
Element Photo:										
Description of F	Photo:	Streams and Water	vays							

Element Data:															
Element Group:		Embankmen	ts & Stre	ams			Ler	igth:							
Element Name:		Embankmen	ts				Wio	lth:							
Location:		SW, SE and	NW Quad	Irants			Hei	ght:							
Material:		Trees, Shrub	s and Ea	rth			Со	unt:			3				
Element Type:		Vegetation					Tot	al Quanti	ty:		3				
Environment:		Benign					Insp	ected			``	Yes	Χ	No[limited
Protection System:															Performance
Condition Data:		Units		Exce	ellent		Go	od		Fair			Poor*		Deficiencies
Condition Data.		each					3								
Comments: All 3 so it	embankmen is part of st	nts are heavil ructure.	y vegetat	ied. Ligh	t erosio	on on r	norti	nwest qu	adra	ant. No ei	mbai	nkme	ent elen	nent p	resent on northea
Recommended Wo	ork:		Reha	ab:	Rep	place:				Mainten	ance	Nee	ds:		
Urgent:	1-	5 Years:	6-10) Years:			No	one: X		Urgent:			1 Year:		2 Year:
Element Photo:															
Description of P	hoto:	SW Embank	ment												


Element Data:									
Element Group:	Approaches	5		Len	gth:		6.9		
Element Name:	Wearing Su	rface		Widt	th:		8.5		
Location:	North and S	outh		Heig	jht:		0.10		
Material:	Asphalt			Cou	nt:		2		
Element Type:				Tota	I Quantit	y:	116.5		
Environment:	Severe			Inspe	cted		Yes	N	No limited
Protection System:									Performance
Condition Data:	Units	E	Excellent	Goo	d	Fair		Poor*	Deficiencies
	sq.m			116.	.5	13.7			
Sout	h has 3.5m of light crac	s. Light to me	dium ruttin	ig along wh	eel lines				
Recommended Wo	ork:	Rehab:	Rep	place:		Mainten	ance Nee	eds:	
Urgent:	1-5 Years:	-5 Years: 6-10 Years:				Urgent:		1 Year:	2 Year:
Element Photo:									
Description of P	Photo: South appr	oach							



Element Data:													
Element Group:		Approaches					Length:		6	i.9			
Element Name:		Approach Sl	ab				Width:		8	3.5			
Location:		North and so	outh				Height:		0).26			
Material:		Concrete					Count:		2	2			
Element Type:		Solid Slab					Total Qu	antity:	1	16.5			
Environment:		Benign					Inspected			Ye	s	No	limited X
Protection System	:	Asphalt Wea	ring Sur	face		_							Performance
Condition Data:		Units		Exce	ellent		Good		Fair		Poor*		Deficiencies
	<u> </u>	sq.m					116.5						
Decommended W	o el v		Dah	-					Maintana	200	aadau		
				Iviairiteria		eeus.							
Urgent:	1-	1-5 Years: 6-10 Years:					None:	X	Urgent:		1 Year:		2 Year:
Element Photo:													
Description of F	Photo:	Approach sla	ab										

Element Data:										
Element Group:		Approaches			Lenath:		46.0)		
Element Name:		Barrier			Width:					
Location:		NW. SE and SW Qua	drants		Height:					
Material:		Steel			Count:		1			
Flement Type:		Steel beam Guide Ra	il on Steel Posts		Total Quant	itv:	46.0)		
Environment [.]		Severe			Inspected			Yes X	No	
Protection System		Galvanized			mopoolou			105 X		Performance
- Totection bystem		Units	Excellent		Good		Fair	Po	or*	Deficiencies
Condition Data:		m	8.0		22.0		12.0	4	.0	8 - Pedestrian / vehicular
Comments: Nort Sou 2.5n side	thwest is in o thwest end t n of deforma ways. South	excellent condition. R ermination has mediu tions and two 300x30 least has abrasion de	emaining rails have im corrosion, full le 0mm deformations formations and it's	e lo eng . Tl bri	ocalized light oth deformation he end termir idge connect	corr ons a nal h ion l	osion typical and 4 rotten v as deficient I nas deficient	. No guid wood pos neight an height.	le rail no sts. Sout d end ble	rtheast approach. hwest W-beam has ock is rotated
Recommended W	ork:	Reh	ab: Replac	ce:			Maintenance	e Needs:	3 - Ra	ailing System Repair
Urgent:	1-	5 Years: 6-1	0 Years:		None: X]	Urgent:] 1 Y	ear:	2 Year: X
							Replaced da post and ins approach.	maged rates that the second se	ail sectio reatment	ns, rotten wood ts at the south
Element Photo:										
Description of I	Photo:	Approach Barrier								



Element Data:										
Element Group:	Approache	S		Le	ngth:		6.9			
Element Name:	Curb and G	utters		Wi	dth:		0.3			
Location:	West Side			He	ight:		0.14	4		
Material:	Concrete			Co	unt:		2			
Element Type:	Curb			To	tal Quanti	ity:	6.0			
Environment:	Severe			Insp	ected			Yes X	No	limited
Protection System										Performance
Osardition Datas	Units	E	Excellent	Go	bod	Fa	iir	Poor'	ŧ.	Deficiencies
Condition Data:	sq.m			6	.0					
Comments: Ligh	scaling and abrasions	typical. Northw	est curb ha	as 2 light :	spalls.					
Recommended Wo	ork:	Rehab:	Rep	lace:		Mair	ntenance	e Needs:		
Urgent:	1-5 Years:	6-10 Yea	rs:	N	one: X	Urge	ent:	1 Yea	ır:	2 Year:
Element Photo:										
Description of P	hoto: Northwest	curb								

Element Photo: Description of Photo: Southwest curb **Element Photo:** Description of Photo:

Element Data:									
Element Group:	Approaches			Length:		6.85			
Element Name:	Sidewalk/Cu	rb		Width:		1.8			
Location:	East Side			Height:		0.14			
Material:	Concrete			Count:		2			
Element Type:	Sidewalk			Total Quanti	ty:	20.0		r	
Environment:	Moderate			Inspected		Y	es X	No	
Protection System	:							_	Performance
Condition Data	Units	Excellent		Good	Fair		Poor*		Deficiencies
Condition Data.	sq.m			26.1	0.5				
1.8m	n medium crack at joint.								
Recommended Wo	ork:	Rehab: F	Replace:		Mainte	nance N	Veeds:		
Urgent:	1-5 Years:	6-10 Years:		None: X	Urgent:		1 Year:		2 Year:
Element Photo:									
Description of P	Photo: Approach s	dewalk							



Repair and Rehabilit	ation Required:		Pric	ority		Estimated Structural	
Element ¹	Repair and Rehabilitation Required ²	6 to 10 Years	1 to 5 Years	Within 1 Year	Urgent	Cost	
Structure	Demolition						
Structure	Replacement						
OR							
Deck	Rehab. = Repair exterior soffit concrete		X			\$150,000.00	
Sidewalk/Curb	Rehab. = Repair delaminated areas		X			\$125,000.00	
Barrier	Rehab. =						
Joints	Rehab. =						
Beams	Rehab. = Repair soffit concrete		X			\$75,000.00	
Abutment	Rehab. =						
Pier	Rehab. =						
Other	Asphalt Wearing Surface and Waterproofing					\$100,000.00	
Estimated Rehabilitate	ed or Replacement Structure Dimensions ³						
Total Deck Length	n (m) Overall Str. Width (m)			Total Str	uctural Cost	\$450,000.00	

2 - Give a very brief description of the rehabilitation work required.

3 - Estimated structure dimensions after completion of the proposed work - if it is expected to change

Associated Work	Comments	Estimated Associated
		Work Cost
Approaches	Replace damaged rail sections, install end treatment	\$10,000.00
Detours		
Traffic Control		\$80,000.00
Utilities		
Other	Engineering and Contingency	\$100,000.00
	General, Mobilization/Demobilization, Access, General	\$185,000.00
	Total Associated Work Cost	\$375,000.00
	Total Construction Cost	\$825,000.00

Justification:

Rehabilitation is recommended for the sidewalk top and front face surfaces, exterior soffits, and areas of the girder soffit at the girder ends. The asphalt wearing surface is starting to exhibit deterioration with 35% of the total area in fair condition and could be considered for replacing with new aspahlt with waterproofing membrane, costs include this work.

					MTO Site Number:		
Inventory Data:							
Structure Name	Cascade Street B	ridge No.2					
Main Highway #	Cascade Street	On X or Under Structure	r Service on Structure	Navig Rail	g. Water Non-Navi	g. Water	er
Location Description	0.019km east of W	/ater St.	Service under:	Navig Rail	g. Water XNon-Navi	g. Water	er
Owner/Custodian	Town of Parry Sou	ind					
MTO Region	North Eastern		Latitude	45° 21' 02	2"N Longitude	80° 01' 3	5"W
Regional Engineer			Heritage Designation:	XNot C	Cons. Cons./Not App	o. List/ Desig. & List	Not Desig.
MTO Area	52 - Huntsville		Hwy Class:	Freeway	Arterial Collec	tor X Lo	ocal
Old County	44 - Parry Sound		Posted Speed	40	No. of Lanes	2	
Township	452 - McDougall		AADT	Unkno	own % Truck	Unkno	wn
Structure Type 1	Rigid Frame Verti	ical Leg					
Structure Material 1	Concrete		Traffic Directional	Bound	N-S		
Structure Type 2	Concrete Deck						
Structure Material 2	Concrete		Inspection Freque	ency	2	(years)	
Total Deck Length	11.5	(m)	Inspection Year		2022		
Overall Str. Width	11.2	(m)	Inspection Duration	on	2	(hrs)	
Culvert Length		(m)					
Total Deck Area	128.8	(sq.m)					
Roadway Width	8.0	(m)	Min. Vertical Clea	irance	3.6	(m)	
Skew Angle	10	(Degree)	Detour Distance		2.4	(km)	
No. of Spans	1		Fill on Structure		0	(m)	
Span Lengths	10.0					(m)	
For retaining wall:							
Total Wall Length	6.0	(m)	Max. Wall Height		2.8	(m)	
Total Wall Area	16.8	(sq.m)	Ave. Wall Height		2.8	(m)	
			Angle of Backfill			(Degree	es)
Historical Data							
Year Built	1984		Year of superstru	ct. Constructed	N/A		
Last Reg. OSIM Inspe	ection 2020		Year of Last Mino	r Rehab.	N/A		
Last Enn. OSIM Inspe	ection		Year of Last Majo	ir Rehab	Unknown /	1	(tonnes)
Work History: (Date/d	lescription)			Investigat	tion History: (Date/descriptic	 on)	(1011100)
						_	

			MTO Site Number:								
Field Inspection Infor	mation:										
Date of Inspection:	Jı	une 30, 2021	Type of	Inspectic	n:	X	Reg. OSI	M	Eni	h. OSIM	
Inspected By	A	lison Friebel									
Others in Party:	N	one									
Eng. Access Equipment:	Ha	ammer, Camera and	Tape mea	sure							
Special Access Equipment	N	one									
Weather	S	un/clouds	Tempera	ature						15 °C	
Additional Investigati	ons Require	ed:			None		riority ormal	Urgent	_	Estimated Cost	
Material Condition Survey					Х			Ŭ			
Detailed Deck Conditio	n Survey:				Х						
Non-destructive Delam	ination Survey	of Asphalt-Covered D	eck:		Х						
Concrete Substructure	Condition Surve	ev:			х						
Detailed Coating Cond	ition Survey	-j:									
Detailed Timber Invest	idation:				X			-			
Post-Tensioned Strand	Investigation:		X X								
Underwater Investigation	investigation.				X			_			
Entique Investigation				——							
Fallyue Investigation					×				_		
Seismic investigation					<u>^</u>				_		
Structure Evaluation:					X				_		
Monitoring					X				_		
Deformations, Settleme	ents and Mover	ients:			X				_		
Crack Widths:					X				\rightarrow		
RSS Horizontal movem	nents of face:				X						
RSS Vertical movemer	nts of overall stru	ucture:			X						
RSS Local movements	or deterioration	of face elements:			X						
RSS Horizontal movem	nents within ove	rall structure:			X						
RSS Vertical movemer	nts within overal	l structure			X						
RSS Lateral earth pres	sure at the back	c of facing elements			Х						
Investigation Notes:						Tota	al Cost			\$0.00	
Overall Structure Not	es:										
Recommended Work on St	ructure	None X Mi	nor Rehab		Major Rehab). [Repl	ace			
Timing of Recommended W	/ork	Urgent X	1 to 5 ye	ars	- 6 to 10 y	/ears					
Overall Comments:		The bridge is in ger		d condit	ion There is	som		ch aenhal	t datar	ioration. The north	
Overall Comments.		ne bluge is in get	a bridge e			- SUIII	appioa	cii aspiiai		ioration. The north	
		approach barriers t	o bridge c	onnectio	on are substa	nuaro	and she		insider	ed to be upgraded	
		to meet the current	standard,	this was	considered	as a i	naintena	ince item.			
Date of Next inspection:		2024									
Overall Bridge Co	ndition										
% Poor in Deck	% Poor in Bea	ms % Poor in Sub	structure	% F	Poor in Barrier	·T	Bric	lge Conditi	on Inde	ex (BCI or BCIp)	
1%	0%	2%			2%	Γ		BClp 98.89		BCI 71.94	
Overall Bridge Su	fficiency	·				I		-			
Traffic	Economic	Width	1		Alignment			Bridge Suf	ficienc	/ Index (BSI)	
0	3	0			0				68.94	. ,	

Element Data:						
Element Group:	Decks		Length:	11	.2	
Element Name:	Wearing Sur	face	Width:	8.5	5	
Location:	Deck		Height:	0.0)9	
Material:	Asphalt		Count:	1		
Element Type:			Total Quant	tity: 95	.2	
Environment:	Severe		Inspected		Yes X No	limited
Protection System:			-			Performance
	Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data:	sq.m		75.7	18.0	1.5	
sevel	re crack. 8.5m medium cr	racks at both abutment.	1.2 m x 800mm me	edium loss of bo	nd at centerline at	north abutment.
Recommended Wo	ork:	Rehab: Re	place:	Maintenand	ce Needs:	
Urgent:	1-5 Years:	6-10 Years:	None: X	Urgent:	1 Year:	2 Year:
Element Photo:						
Description of P	hoto: Deck wearin	g surface				

Element Data:											
Element Group:	Decks				Length:		11.	2			
Element Name:	Deck To	o (with Thick	Slab)		Width:		8.5				
Location:	Deck	1			Height:		Var	ries			
Material:	Concrete)			Count:		1				
Element Type:	Cast-in-F	Place			Total Quan	titv:	95.	2			
Environment:	Moderat	<u>, , , , , , , , , , , , , , , , , , , </u>			Inspected			Vas		Jol	
Drata ati an Oustana	Aanhalt	•			Inspected			163	'		
Protection System			– –		0 1			1	D +	-1	Performance
Condition Data:	Units		Excelle	nt	Good	Fai	ſ		Poor	_	Deficiencies
	sq.m				95.2						
Recommended W	ork:	Reh	ab:	Replace	e:	Main	tenance	e Need	s:		
Urgent:	1-5 Years: [6-10) Years:		None: X	Urge	nt:	<u>]</u> 1	1 Year:		2 Year:
Element Photo:											
Description of F	Photo: Deck top)									

Element Data:																
Element Group:		Decks					Le	ngth:			10.2					
Element Name:		Soffit - Thick	Slab				Wi	dth:			11.2					
Location:							He	ight:			N/A					
Material:		Concrete					Co	unt:			1.0					
Element Type:		Cast-in-Place	9				To	tal Quanti	ity:		113.	7				
Environment:		Benign					Insp	ected			`	Yes		No	lin	nited X
Protection System:	:														Pe	rformance
Condition Data:		Units		Exc	ellent		Go	od		Fair			Poor*		De	eficiencies
Condition Data.		sq.m					10	7.7		3.0			3.0			
Comments: Limit abut crac	ments. 12.0 ments. 12.0 ks on east fa	m of medium ascia. Isolated	cracks. 1 d areas o	2.0m of f light s	g, typ Flight tainir	ical. 14. cracks ig.	alon;	g centerli	ine.	Five 300)mm li	ight c	ence ex cracks c	n we	est fasc	ia. Four light
Recommended Wo	ork:		Reha	ab:] F	Replace:				Mainter	nance	Need	ls:			
Urgent:	1-	5 Years:	6-10	Years:			N	one: X		Urgent:			1 Year:		2	Year:
Element Photo:												The second secon		A MALLAN / NA SANA ANA	AND AND	
Description of P	hoto:	Soffit typical														



Element Group: Decks Length: Element Name: Drainage System Width: Location: Height: Material: Count: Element Type: Total Quantity: Element Type: Total Quantity: Environment: Severe Protection System: Inspected Condition Data: Units each Good Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of lig debris build up at bottom of drains. Recommended Work: Rehab: Replace: Maintenance Needs:	lement Group:
Element Name: Drainage System Width: Location: Height: Inspected N/A Element Type: Total Quantity: N/A Environment: Severe Inspected Yes No limited Protection System:	
Location: Height: Material: Count: Element Type: Total Quantity: Environment: Severe Protection System: Yes Condition Data: Units Each Good Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of lige debris build up at bottom of drains. Recommended Work: Rehab: Replace:	lement Name:
Material: Count: Element Type: Total Quantity: N/A Environment: Severe Inspected Yes No Ilimited Protection System: Performan Condition Data: Units Excellent Good Fair Poor* Deficiencie Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of lig debris build up at bottom of drains. Rehab: Replace: Maintenance Needs:	ocation:
Element Type: Inspected N/A Environment: Severe Inspected Yes No Iimited Protection System:	laterial:
Environment: Severe Inspected Yes No limited Protection System: Performan Condition Data: Units Excellent Good Fair Poor* Deficiencial Condition Data: each Imited Imited Imited Performan Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of light debris build up at bottom of drains. Performan Recommended Work: Rehab: Replace: Maintenance Needs:	lement Type:
Protection System: Performan Condition Data: Units Excellent Good Fair Poor* Deficiencie Condition Data: each Image: Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of light debris build up at bottom of drains. Recommended Work: Rehab: Replace: Maintenance Needs:	invironment:
Units Excellent Good Fair Poor* Deficiencie Condition Data: each Image: Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of light debris build up at bottom of drains. Recommended Work: Rehab: Replace: Maintenance Needs:	rotection System:
Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of light debris build up at bottom of drains. Recommended Work: Rehab: Replace: Maintenance Needs:	Condition Data:
Comments: No deck drains, drainage provided by surface sheet flow. The abutment walls have 8 drain pipes with isolated areas of lig debris build up at bottom of drains. Recommended Work: Rehab: Replace: Maintenance Needs:	onulion Bala.
Recommended Work: Rehab: Replace: Maintenance Needs:	omments: No deck drains, debris build up
	ecommended Work:
Urgent: 1-5 Years: 6-10 Years: None: X Urgent: 1 Year: 2 Year:	Urgent: 1
Element Photo:	Element Photo:
<image/> <page-footer></page-footer>	Description of Photo:

Element Data:															
Element Group:		Sidewalk/Cu	rb				Lei	ngth:			11.2				
Element Name:		Sidewalks ar	nd Media	ns			Wi	dth:			1.4				
Location:		East and We	st Side o	f Deck			He	ight:			0.14				
Material:		Concrete					Со	unt:			2				
Element Type:		Cast-in-place)				To	tal Quant	ity:		33.4				
Environment:		Severe					Insp	ected				Yes	X	No	limited
Protection System	:													_	Performance
Condition Data:		Units		Ex	cellent	:	Go	od		Fair			Poor*		Deficiencies
		sq.m					33	5.0		0.4					
Recommended W	light abrasio osits along ra	aised curb.	of rust s	ab:	g. Wes	t sidewa	alk ha	as one 40	00mr	n light cr	nance	West	t sidewa	alk has	s sand and debris
Urgent:		5 Years'	6-10) Years	_		N	nne [.] X]	Urgent [.]			1 Year	X	2 Year
		o rears:	0-10) rears	·		INC	one:]	Remove	e debr	ris bı	uild-up		
Element Photo:															
Description of F	Photo:	East sidewal	k												



Element Data:													
Element Group:		Barriers					Length:			15.0			
Element Name:		Railing Syste	ems				Width:						
Location:		East and We	st Side				Height:			1.12			
Material:		Aluminum ar	nd Concr	ete			Count:			2			
Element Type:		4 Rail Metal I	Railing - <i>I</i>	Aluminu	m		Total Quar	ntity:		30.0			
Environment:		Severe					Inspected			Ye	s X	No	limited
Protection System	:												Performance
Condition Data:		Units		Exce	llent		Good		Fair		Poo	or*	Deficiencies
Condition Data.		m					15.5		14.0		0.5	5	
Comments: East ends isola	side has loo s. One 50mm ited areas of	calized abrasi n x 50mm defo f light spalls a	on and ic ormation it corners	on east on east 5. Four li	deforma rail. Con ght crac	crete ks at	bon all 4 rai barriers ha northeast o	ave li conc	e entire lei ight scalin rete barrie	ngtn. g typio r.	ιwo enα cal. Soι	d caps uth eas	missing at north t concrete barrier has
Recommended W	ork:		Reha	ab:	Repl	ace:			Maintena	ance N	eeds:	3 - F	Railing System Repair
Urgent:	1-	5 Years:	6-10	Years:			None: X		Urgent:		1 Ye	ear:	2 Year: X
									Replace	missir	ng end (caps.	
Description of F	hoto:	Railing Syste	em, Abra	sions, T	ypical								



Element Data:																
Element Group:		Abutments						Ler	ngth:							
Element Name:		Abutment Wa	alls					Wie	dth:			11.3				
Location:		North and Sc	outh					He	ght:			5.1				
Material:		Concrete						Со	unt:			2				
Element Type:		Cast-in-place)					Tot	al Quanti	ity:		115.	6			
Environment:		Benign						Insp	ected			,	Yes X	1	No	limited
Protection System	:														_	Performance
Condition Data:		Units		Ex	celle	nt		Go	od		Fair		Р	oor*		Deficiencies
Contailon Data.		sq.m						10	6.7		5.0			5.0		
Comments: Ligr seve 100i 200i	ere cracking nm deep voi nm from bot	at center of fo d with water of tom of wall fo	osion at poting. E churning r the full	both e Bottom within l length	of so the on l	or the outh w void. 3 bridge	vall ha 300m e on b	as lo nm x both	calized a 100mm sides. 4	area light 00m	of very scourin m x 200r	ig. 15 sever ig @ r mm sj	oum of re scou northwe pall at s	iring wi est cor south f	ith a ner. ootin	500mm x 300mm of 500mm x 300mm x Severe scaling ig.
Recommended W	ork:		Reh	ab:		Repl	ace:				Mainter	nance	Needs	:	8 - 0	Concrete Repair
Urgent:	1-	5 Years:	6-10) Years	:			No	one: X		Urgent:		1	Year:		2 Year: X
											Repair o	concr	ete voi	d.		
Element Photo:	R	3													4 in the second se	
Description of I	Photo:	South Abutm	hent						•					•		



Element Data:															
Element Group:		Abutments					Ler	ngth:			6.7				
Element Name:		Wingwalls					Wio	dth:							
Location:		All Quadrant	s				Hei	ght:			4.9				
Material:		Concrete					Co	unt:			4				
Element Type:		Cast-in-place	e				Tot	al Quanti	ity:		132.	4			
Environment:		Benign					Insp	ected			`	Yes	X	No	limited
Protection System	:					_					_				Performance
Condition Data:		Units		Exce	ellent		Go	od		Fair			Poor*	_	Deficiencies
		sq.m					12	5.9		4.5			1.0		
Comments: Ligh the o wing 60m	center of the gwall at bear m x 20mm n	wall. All wing ing seat. Med nedium scalin	gwalls ha ium scal g.	ing on th	ere 500 ne sout	0mm lo theast	ong l wing	norizonta wall 600	al cra mm	ack the w (H) x 6.0n	vidth n(L) a	of the and 2.	abutm 0m ligh	nent v nt ver	vall at the top of tical crack and 2 x
Recommended W	ork:		Reh	ab:	Re	eplace:				Mainten	ance	Needs	s:		
Urgent:	1-	5 Years:	6-10) Years:			No	one: X		Urgent:		1	Year:		2 Year:
Element Photo:															
Description of F	Photo:	Northwest w	vingwall												



Element Data:													
Element Group:		Retaining Wa	alls				Length:		15.0				
Element Name:		Walls					Width:						
Location:		Southwest Q	uadrant				Height:		1.8				
Material:		Mortar and S	tone				Count:		1				
Element Type:							Total Quant	ity:	27.0				
Environment:		Benign					Inspected			Yes		lo[limited X
Protection System	:												Performance
		Units		Exce	ellent		Good	Fair		F	Poor*		Deficiencies
Condition Data:		sq.m				Т	14.4	12.2			0.5		
Comments: Reta loss x 30	ining wall is of mortar ar Omm and me	a possibly par nd stones typi edium scourin	t of the C ical. Efflo ng 0.6 x 7	orescend 5 x 250n	Street C ce depo nm at b	ottom	ating Station hroughout er n center of wa	operated by nanating fror all with loss o	Brac n the of mo	morta morta	e Gener r. Severe d stones	atic e so s.	on. Light to medium
Recommended W	ork:		Reh	ab:	Rep	place:		Mainter	nance	Needs	: 1	8 - C	Other Maintenance
Urgent:	1-	5 Years:	6-10) Years:			None: X	Urgent:		1	Year:		2 Year: X
								Repair s Confirm facility	scour h if th prior	ring at is elerr to und	bottom on nent belo ertaking	of ro ong: rep	etaining wall. s to the generation pairs.
Element Photo:													
Description of F	hoto:	Retaining wa	all										

Element Data:														
Element Group:		Embankment	ts & Stre	ams		Le	ength:							
Element Name:		Streams and	Waterwa	ays		N	/idth:							
Location:		East and We	st			H	eight:							
Material:		Exposed Bec	drock			C	ount:							
Element Type:						- Te	otal Quant	ity:	F	AII				
Environment:		Benign				Ins	pected			Ye	s X	Ν	o	limited
Protection System	1:													Performance
Oseralitien Deter		Units		Exce	ellent	G	ood		Fair		Pool	r*		Deficiencies
Condition Data:		all)	(
Decommental M							7		Maintana					
Recommended vv			Ren		Rep		<u> </u>		Maintena		eeas:			
Urgent:	1-	5 Years:	6-10) Years:		١	lone: X		Urgent:		1 Ye	ar:		2 Year:
Element Photo:														
	Photo:	Wataraw												
Description of I	Photo:	Waterway												

Element Data:												
Element Group:	E	Embankment	ts & Stre	ams		Length:						
Element Name:	E	Embankment	ts			Width:						
Location:	Ν	NE, SW, NW	Quadran	ts		Height:						
Material:	V	/egetation, s	hrubs ar	nd rocks		Count:		3				
Element Type:						Total Quant	ity:	3				
Environment:	E	Benign				Inspected		Y	/es	X	No	limited
Protection System:	F	Rip Rap										Performance
		Units		Exceller	nt	Good	Fair			Poor*		Deficiencies
Condition Data:		each		2		1						
Obser	ved defects.		Dah		Denlage		Mointon		Noor			
	IK.		Rena				Mainter		need	JS.		
Urgent:	1-5	Years:	6-10) Years:		None: X	Urgent:			1 Year:		2 Year:
Element Photo:												
Description of Pl	hoto: N	Northeast en	nbankme	ent								

Element Photo:



Element Data:															
Element Group:		Embankmen	ts & Stre	ams			Lei	ngth:							
Element Name:		Slope Protec	tion				Wie	dth:							
Location:		NE and NW (Quadran	ts			He	ght:							
Material:		150mm - 300	mm Stor	ne			Co	unt:			2				
Element Type:		Rip Rap					To	al Quanti	ity:		2				
Environment:		Benign					Insp	ected			·	Yes	Х	No	limited
Protection System	:					_									Performance
Condition Data:		Units		Exce	ellent		Go	od		Fair			Poor*		Deficiencies
		each			2										
2					1 -										
Recommended W	ork:		Reh	ab:		eplace:				Mainten		Nee	ds:		
Urgent:	1-	5 Years:	6-10) Years:			No	one: X		Urgent:			1 Year	:	2 Year:
Element Photo:															
Description of F	Photo:	Slope Protect	ction												

Element Data:						
Element Group:	Accessories		Length:			
Element Name:	Signs		Width:			
Location:	Northwest A	pproach	Height:			
Material:	Steel		Count:	1		
Element Type:			Total Quant	ity: 1		
Environment:	Benign		Inspected		Yes X No	
Protection System:					-	Performance
Condition Data:	Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data.	each		1			
Percommended W/	yr 1100200 olyn 10 in good	Bohah: Don Bon		Maintenan	co Noods:	
	лк. 					
Urgent:	1-5 Years:	6-10 Years:	None: X	Urgent:	1 Year:	2 Year:
			BRIDGE			
Description of P	hoto: Sign					

Element Data:															
Element Group:		Accessories					Le	ngth:							
Element Name:		Utilities					Wi	dth:							
Location:		Within North	Sidewal	k			He	ight:							
Material:		PVC					Co	unt:			2				
Element Type:		Rigid Condui	it				То	tal Quanti	ity:		2				
Environment:		Benign					Insp	ected			١	Yes		No	X limited
Protection System	:								-						Performance
Osadition Datas		Units		Ex	celler	nt	Go	od		Fair			Poor*		Deficiencies
Condition Data:		each					:	2							
Comments: As-t	ouilt drawing	ıs indicate 2-7	5mm dia	meter	cond	uits ar	e withir	the east	t side	ewalk, th	ey ar	e not	t visible	e.	
Recommended W	ork:		Reh	ab:]	Repla	ce:			Mainten	ance	Need	ds:		
Urgent:	1-	-5 Years:	6-10) Years	:		N	one: X		Urgent:			1 Year:		2 Year:
Description of F	Photo:	Utilities													

Element Data:							
Element Group:	Approaches		Length:	6.0			
Element Name:	Wearing Sur	face	Width:	8.5			
Location:	North and So	outh	Height:	0.10	0		
Material:	Asphalt		Count:	2			
Element Type:			Total Quant	ity: 102	2.0		
Environment:	Severe		Inspected		Yes X	No limit	ed
Protection System	:		•			Perfo	rmance
Condition Data:	Units	Excellent	Good	Fair	Poor*	Defic	iencies
Condition Data.	sq.m		89.0	10.0	3.0		
Recommended Wo	ork:	Rehab: Repla	ace:	Maintenance	e Needs:	12 - Bridge Surfa	ice Repair
Urgent:	1-5 Years:	6-10 Years:	None: X	Urgent: Repair asph] 1 Yea alt	r: 2 Ye	ar: X
Description of F	Photo: North Appro	ach					

Element Photo:	
Description of Photos	South Approach
	South Approach
l Flamant Photo	
Element Photo:	

Element Data:													
Element Group: Approaches					Length:	52.0)						
Element Name:	Barrier				Width:								
Location:	Location: All Quadrants					Height:							
Material: Steel, Timber, Concrete, Aluminum						Count:							
Element Type: Steel Beam Guide Rail						Total Quantity:)				
Environment: Severe						Inspected			Yes	X	No	limited	
Protection System						Performance							
		Units		Excellent		Good	Fair		Poor*			Deficiencies	
Condition Data:		m				47.5	4.0		0.5				
Comments: Northeast rain has substandard connection to bridge, approach rain has a missing boit, three posts with 50x50mm splintering and localized light abrasions. Northwest rail has substandard connection to bridge, with medium corrosion towards the end of the rail. Southeast rail concrete wall has light scaling, typical. An approach to the connection upgrades would be to install the additional transition posts, then schedule the full upgrades for a future rehabilitation, costs provided are for the post upgrades only.													
Recommended W	ork:		Rehab: Replace:			Mainten		nance	e Need	ds:	3 - Ra	iling System Repair	
Urgent: 1-5 Years:			6-10 Y	Years:		None: X	Urgent:	Urgent: 1			:	2 Year: X	
							Upgrad	le NE	and N	NW bar	rier to	bridge connection	
Description of F	Photo:	Northeast approa	ach ba	arrier									


Element Data:										
Element Group:	Approaches		Length:		6.0					
Element Name:	Curb and Gutters		Width:							
Location:	All Quadrants		Height:		0.2					
Material:	Concrete		Count:		4					
Element Type:	-		Total Quanti	ty:	23.2					
Environment:	Severe		Inspected		Yes	X No	limited			
Protection System:						Performance				
Condition Data:	Units	Excellent	Good	Fair		Deficiencies				
Condition Data.	sq.m		23.2							
Comments: Light scaling, light spall at s	southwest curb.	ong gutters, no ob		lage. Light ac	brasions	along curb e	edges typical and			
Recommended Work:	Re	nab: Repla	ace:	Maintena	ance Nee	eds:				
Urgent:	1-5 Years: 6-1	0 Years:	None: X	Urgent:		1 Year:	2 Year:			
Description of Photo:	Approach curb									

Element Data:	:													
Element Group:		Approaches					Length:		6	6.0				
Element Name:		Sidewalk/Cu	rb				Width:		1	.4				
Location:		NE and SE Q	uadrant	S			Height:	0.14						
Material:		Concrete					Count:			2				
Element Type:		-					I otal Quantity: 32.4							
Environment:		Severe					Inspected			Yes		No	limited	
Protection System	n:	Ĺ				_				_			Performance	
Condition Data:		Units		Exce	ellent		Good		Fair		Poor*		Deficiencies	
	sq.m						32.4							
Comments. 2.9														
Recommended W	/ork:		Reh	ab:	Re	eplace:			Maintena	nce Ne	eds:			
Urgent:	1-5	5 Years:	6-10) Years:			None: X]	Urgent:		1 Yea	r:	2 Year:	
Element Photo:														
	1													
Description of I	Photo:	Approach sid	dewalk											

tion Required:		Pric		Estimated Structural	
Repair and Rehabilitation Required ²	6 to 10 Years	1 to 5 Years	Within 1 Year	Urgent	Cost
Demolition					
Replacement					
Rehab. =					
Rehab. =					
Rehab. =					
Rehab. =					
Rehab. =					
Rehab. =					
Rehab. =					
Maintenance = N Approach Barriers					\$5,000.00
d or Replacement Structure Dimensions ³					
(m) Overall Str. Width (m)			Total Str	uctural Cost	\$5,000.00
	Ition Required: Repair and Rehabilitation Required ² Demolition Replacement Rehab. = Or Replacement Structure Dimensions ³ m) Overall Str. Width (m) acement OR for rehabilitation under the given headings.	Ition Required: 6 to 10 Years Repair and Rehabilitation Required ² 6 to 10 Years Demolition	tion Required: Price Repair and Rehabilitation Required ² 6 to 10 Years 1 to 5 Years Demolition Image: Constraint of the system of the s	tion Required: Priority Repair and Rehabilitation Required ² 6 to 10 Years 1 to 5 Years Within 1 Year Demolition Interpretent Interpretent Interpretent Interpretent Replacement Interpretent Interpretent Interpretent Interpretent Rehab. = Interpretent Interpretent Interpretent Interpretent Interpretent Rehab. = Interpretent Inter Interpretent Interpret	Iton Required: Priority Repair and Rehabilitation Required ² 6 to 10 Years 1 to 5 Years Within 1 Year Urgent Demolition I 1 to 5 Years Within 1 Year Urgent Replacement I Image: Structure Dimensions ³ m) Image: Structure Dimensions ³ Image: Structure Dimensions

2 - Give a very brief description of the rehabilitation work required.

3 - Estimated structure dimensions after completion of the proposed work - if it is expected to change

Associated Work	Comments	Estimated Associated Work Cost
Approaches		
Detours		
Traffic Control		
Utilities		
Other		
	Total Associated Work Cost	\$0.00
1		
	Total Construction Cost	\$5,000.00

Justification:

The north approach barriers to bridge connection are substandard and should be considered to be upgraded to meet the current standard, this was considered as a maintenance item. An approach to the connection upgrades would be to install the additional transition posts, then schedule the full upgrades for a future rehabilitation, costs provided are for the post upgrades only.

				MTO Site Number:	
Inventory Data:					
Structure Name	Seguin River Ped	lestrian Bridge			
Main Highway #	Parry Sound Fitness Trail	On X or Under Structure	r Service on Structure	Navig. Water Non-National Non-Nation	vig. Water dOther
Location Description	0.1km South of Se	guin Street	Service under:	X Navig. Water Non-National Non	vig. Water dOther
Owner/Custodian	Town of Parry Sou	ind			
MTO Region	Northeastern		Latitude	45° 20' 33" N Longitude	80° 01' 53" W
Regional Engineer			Heritage Designation:	X Not Cons. Cons./Not Ap Desig. Desig./Not List	ρp. List/Not Desig.]Desig. & List
MTO Area	52 - Huntsville		Hwy Class:	Freeway Arterial Colle	ector Local X
Old County	44 - Parry Sound		Posted Speed	0 No. of Lanes	0
Township	452 - McDougall		AADT [0 % Truck	. 0
Structure Type 1	Timber deck				
Structure Material 1	Timber		Traffic Directional E	ound E-W	
Structure Type 2	Steel Frame				
Structure Material 2	Steel		Inspection Frequer	y 2	(years)
Total Deck Length	96.5	(m)	Inspection Year	2022	
Overall Str. Width	4.6	(m)	Inspection Duration	2	(hrs)
Culvert Length	0	(m)			
Total Deck Area	332.9	(sq.m)			
Roadway Width	3.45	(m)	Min. Vertical Cleara	ice	(m)
Skew Angle	0	(Degree)	Detour Distance	N/A	(km)
No. of Spans	12		Fill on Structure		(m)
Span Lengths	3.4, 3.8, 4.0, 4.0, 3	3.9, 3.8, 3.8, 3.75, 3.6	5, 22.6, 14.3, 25.5 (eas	to west)	(m)
For retaining wall:					
Total Wall Length		(m)	Max. Wall Height		(m)
Total Wall Area		(sq.m)	Ave. Wall Height		(m)
			Angle of Backfill		(Degrees)
Historical Data					
Year Built	1920		Year of superstruct	Constructed N/A	
Last Reg. OSIM Inspe	ection 2020		Year of Last Minor	ehab. N/A	
Last Enh. OSIM Inspe	ection		Year of Last Major	ehab N/A	
Work History: (Date/d	locariation)		Current Load Limit	/	/ (tonnes)
1990 - Converted fror 2014 / 2015 - Deterio 2022 - Deteriorated ti	n a railway traffic bri rated timber planks mber planks replace	dge to a pedestrian b and railing pickets rep a and railing installed	ridge Iaced at east approach	2007 - Condition Survey and an eva was completed 2008 - Additional steel thickness me to confirm web thickness	aluation for load capacity easurements completed

MTO Site Number:

Г

٦

Field Inspection Infor	mation:									
Date of Inspection:	Jun	e 29, 2022	Type of	Inspectio	n:	X Reg. C	SIM	Enh. OSIM		
Inspected By	Alis	on Friebel								
Others in Party:	Bria	n Wood P.Eng.								
Eng. Access Equipment:	Non	e								
Special Access Equipment	Non	9								
Weather	Sun		Tempera	iture				23 °C		
Additional Investigation	ons Required			N	Priority	1 11	Estimated Cost			
Material Condition Survey					None	Normal	Urgent			
Detailed Dook Condition	n Survov:						+			
Non destructive Delami	inction Survey.	aphalt Covarad Day			X		+			
	Candition Survey of /	Asphalt-Covered Dec			X					
Deteiled Coating Condi	tion Survey.									
Detailed Coating Condi	uon Survey.				X					
	gation:				X					
Post-Tensioned Strand	Investigation:				X	X	+	<u> </u>		
Underwater Investigation						X		\$20,000.00		
Fatigue Investigation					X					
Seismic Investigation					X		_			
Structure Evaluation:				X						
Monitoring				X						
Deformations, Settleme	ents and Movemer	ts:		Х						
Crack Widths:				Х						
RSS Horizontal movem	ents of face:				Х					
RSS Vertical movemen	ts of overall struct	ure:			Х					
RSS Local movements	or deterioration of	face elements:			Х					
RSS Horizontal movem	ents within overal	structure:			Х					
RSS Vertical movemen	ts within overall st	ructure			Х					
RSS Lateral earth press	sure at the back o	facing elements			Х					
Investigation Notes:						Total Cost	:	\$20,000.00		
Over well Of we of the Net								•		
Overall Structure Note	es:									
Recommended Work on Str	ructure	None Min	or Rehab	. <u>X</u>	Major Rehab	Re	eplace			
Timing of Recommended W	/ork	Urgent]1 to 5 ye	ars	X 6 to 10 y	ears				
Overall Comments:	T	ne bridge is in gene	erally fair	to good	condition. A	n underwat	er investigatio	n is recommended for		
	th	e piers to confirm	concrete	conditio	n. Rehabilita	tion is reco	mmended to d	complete Span 12 steel		
	re	pairs, and concrete	e repairs	for the th	nree concrete	e piers with	in the waterwa	IV.		
		•	•			•		•		
Date of Next inspection:	2	24								
Overall Bridge Co	ndition									
% Poor in Deck	% Poor in Beam	8 % Poor in Subs	tructure	% P	% Poor in Barrier Bridge Condition Index (BCI or BCIr					
1%	1%	2%			0% BClp BCl 0% 08.84 63.14					
Overall Bridge Su	fficiency					<u> </u>	00.0 1	1 00.14		
Traffic	Economic	Width	Alianment Bridge Sufficiency Ir			iency Index (BSI)				
∩	0									
U	U	U U			U		(63.14		

Element Data:															
Element Group:		Decks				Length:		98.8							
Element Name:		Wearing Sur	face			Width:		3.5							
Location:						Height:		0.1							
Material:		2x10 Timber	Planks			Count:		1							
Element Type:						Total Quanti	ity:	340	40.9						
Environment:		Benign				Inspected			Yes X	No	limited				
Protection System	:				_						Performance				
Condition Data:		Units Excellent				Good	Fai	r	Poor	:	Deficiencies				
		sq.m		10.0		325.4	5.0)	0.5						
Recommended W	ork:		Reh	ab:	Replace		Main	tenanc	e Needs:	12 - B	ridge Surface Repair				
	 	- X -													
Urgent:	1-	5 Years:	6-10	years:		None: X	Urge	nt:	1 Yea	r:	2 Year: X				
							Repla	ace 1 s	plit board						
Element Photo:															
Description of I	^o hoto:	Deck Wearin	ng Surfa	ce	¢ ;										



Element Data	:															
Element Group:		Decks				L	ength:		4	4.4						
Element Name:		Deck Top				V	Width: 0.25					5				
Location:						ŀ	leight:			0.25						
Material:		Timber				(Count:				205					
Element Type:		Transverse (cross Ti	es		Т	Total Quantity: 9				902.0					
Environment:		Benign				In	Inspected				es		No	lim	ited	X
Protection System	ו: ו	Pressure Tre	ated	-							_	`		Per	forman	се
Condition Data:		Units		Exce	lient	(500d		Fair	Poor*			De	ticiencie	es	
	sq.m				oro obor		40.0		46.U Moisture	india	hote	9.5	herc	Northa	act on-	1 000
Comments: Ligr	n weathering	y typical. LOCa	uizeu iig ad of mo	mbor lin	ere CNG(nitod inc	AS and	spills typi a due to m	iddi.	woisture	of tim	alea		uers.	wortimbo	ast ent r dook	i, one
Cros	ss lies lids se	evere rot at er	iu or me	inver. Llf	mieu ms	peclio	i due to M	iuul	e section	or tim	iners	cover	eu bj	y unibe	i ueck.	
AI . 4	. 74 41	t) at	hand -	al (10 - 1											
NOt	e: 14 timers a	al east end, 8	o at nort	n ena, an	u 43 alo	ng cen	ire ot bridg	je.								
Recommended W	/ork:		Reh	ab:	Repl	ace:			Maintena	ance N	leeds	:				
Urgent:	1-	5 Years:	6-1	0 Years:			None: X		Urgent:		1	Year:	\square	2`	Year:	
	·							•					<u> </u>			
									•							
Element Photo	:															
			11 - U.S. 11											O		
									AD	y di						
								most			17			4		
										R			1	1		
													BA			
		AN											X			
No. We are supported in the support		0										1	4			
								in which the		THIT	r'	AT	TT			
					-	MI AL	Terst	TIT	1. 1. 1. 1	hit		13218				
		- Aller	11	WALL			1248		1 * 0	1.777			1141			
A CONTRACTOR	MART De	a contra		and and a			(Real A)	201		Na An						
		In full					MILLE	111			14 1	N.N.	101	12 11		
				BETT A		11	· + + + *			1111						
	# Dach								1	11001			1 1/1/2	de elle		
		L EMA			S to Star			MATES		A REAL WORKS	THE PARTY OF THE		-			
			Here and a second se					1	200			-		. 5		
= = =	1		*					1		174		Sal.	an an			
	リー		······································	- 71	1-2		ten seat	Minet	-		No.					
	C- State		14	No. 10		Z SEC V			1	Notestan N	TV		WT	APR A MICH		
and the second s	0	att (Astron	A The		6- ···				100 m	-	**	(5)		1		
· · /	1 he	Vieles .		and the se		a se			and the second s	1.8	7					
	and the second s	en e			- ANA			A series			the destroyed	TALAN AND	W A	and the second		
		0			65	1		10						1		
Anna I.	4		Ľ.		,	Street and							A.S			
	- pt	P.		an contraction of the second se	and the second	12-2				TAR	- Suis	"Here and		Street of the		
Description of	Photo:	Deck Top														



Description of Photo:

Element Photo:



Description of Photo: Deck Top

Seguin River Pedestrian Bridge

Element Data:	:											
Element Group:		Sidewalk/Cu	rb		Length:		98.8					
Element Name:		Curbs				Width:		0.4				
Location:		North and So	outh Sid	e of Deck		Height:		0.125				
Material:		Timber				Count:		2				
Element Type:		4 m long sec	tions			Total Quanti	ty:	207.5				
Environment:		Moderate				Inspected		Yes X	No	limited		
Protection System	ו:								Performance			
		Units		Excellent		Good	Fair	Poo	or*	Deficiencies		
Condition Data:		sa m		25.4		129.6	38.5	14	0	8 - Pedestrian / vehicular		
	t to modium	woothoring	ahaaka r	nd colite typical		oro rot port	n cido 6 timb	ore and couth		hazard		
Commentsg.												
Recommended W	/ork:		Reh	ab: Repl	lace:		Mainter	nance Needs:	9	- Timber Repair		
Urgent:	1-	5 Years:	6-1	0 Years:		None: X	Urgent:	1 Ye	ear: X	2 Year:		
							Replace	e rotten timber	s			
Element Photo:	:											
Description of	Photo:	Curb										
Description of	Photo:	Curd										







Description of Photo: Curb

Element Data:																
Element Group:		Barriers						Length: 48.0					18.0 (Timber), 50.8 (Steel)			
Element Name:		Railing Syste	ems					Width:								
Location:		Length of Br	idge					Height: 1.2					(Timber)	, 2.5	(Stee	l)
Material:		Steel and Tir	nber					Count: 2								
Element Type:		Post and Ste	el Barrie	rs				Total Quantity: 198.0								
Environment:		Benign						Insp	ected				Yes X]	No	limited
Protection System	1:														Performance	
Condition Data:		Units		E	Excelle	ent		Good			Fair Poo			or*		Deficiencies
T		m					L_	19	7.6		0.2		0	.2		
Comments: Tim Isola gen code	ber railing sy ated areas of erally good o e requiremen	f light splinter condition with nts for cyclist	ring at bo i light con s, howev	ood o olt ho rrosio er 1.2	condi le loc on, ty 2m ca	ntion. 1 cations pical. an be u	Cons ised I	el th ider base	timber p rough gi increasi ed on ow	rdei ng t ner	at nort r span timber approv	neast girder barrie al.	and 1 sp s acts as r height t	raili o 1.3	mber ing sy: 37 m t	post at southeast. stem and is in o meet current
Recommended W	ork:		Reha	ab:		Rep	lace:				Maint	enanc	e Needs:		3 - Rai	iling System Repair
Urgent:	1-	5 Years:	6-10) Yea	rs:			None: X Urgent:						'ear:	X	2 Year:
										1	Repla	ce 2 ti	_ mber pos	sts.		
Element Photo:	:															
Description of I	Photo:	Railing Syste	em													



Seguin River Pedestrian Bridge

Element Data	:									
Element Group:		Beams/Main Longitu	idinal Elements	Length: 22.6						
Element Name:		Girders		Width:		0.5				
Location:		Span 10 from east		Height:		2.45				
Material:		Steel		Count:		2				
Element Type:		Through Plate Girde	r	Total Quanti	ty:	311.9				
Environment:		Benign		Inspected		Yes No	limited X			
Protection System	וי	-					Performance			
		Units	Excellent	Good	Fair	Poor*	Deficiencies			
Condition Data:		00 m		262.6	45.2	2.1	Denelonolog			
Comments: Ligi	ht corrosion, ed on Span /	typical. Assumed me	dium corrosion alo	ng bottom com	ponents, and	d isolated locations of	severe corrosion			
Recommended W	/ork·		nah: Denlac	.	Mainter	nance Needs:				
				<u>,</u>						
Urgent:	L 1-	-5 Years: 6-1	U Years:	None: X	Urgent:	1 Year:	2 Year:			
Element Photo	:									
Description of	Photo:	Inside Face of Girde	er							

Element Data:																
Element Group:		Beams/Main	Longitu	dinal I	Elen	nents		Le	ngth:			25.5	j			
Element Name:		Girders						Wi	dth:			0.5				
Location:		Span 12 from	n east					He	ight:			2.5				
Material:		Steel						Co	unt:			2				
Element Type:		Through Plat	te Girder	S				To	tal Quanti	ity:		357.	.0			
Environment:		Benign						Insp	ected				Yes		No[limited X
Protection System	1:						_								_	Performance
Condition Data:		Units		E	xcel	lent		Go	od 7 1		Fair			Poor*		Deficiencies
	toorrogion	Sy.III	loont or		the	hotto		29	1.1		J1.0			0.9		n with up to
app apr	roximately 5 icularly alon	0% section lo g the north si	ss. Seve de.	ral bo	otton	ns of s	stiffe	ners ł	nave very	/ se\	/ere corr	rosio	n wit	h up to 1	00%	section loss,
Recommended W	ork:		Reh	ab:	X	Re	place	:			Mainter	nance	Nee	ds:		
Urgent:	1-	5 Years:	6-1) Year	s:	X		N	one:		Urgent:			1 Year:		2 Year:
Select repairs to	structural st	eel														
Element Photo:	:															
Description of	<image/>	DSCN8335.	JPG													



Description of Photo: View Towards Abutment

Element Data:																
Element Group:		Beams/Main	Longitu	dinal El	lemen	nts	Le	ngth:			4.6					
Element Name:		Crossties					Wi	dth:			0.25					
Location:		Timber Trest	le Span	3			He	ight:			0.25					
Material:		Timber					Co	unt:			114					
Element Type:		Cross Tie					То	tal Quanti	ty:		524.	4				
Environment:		Benign					Insp	ected				Yes		No[limited X	
Protection System	:	Creosote		_										_	Performance	
Condition Data:		Units		Ex	cellen	it	Go	bod		Fair			Poor*		Deficiencies	
		sq.m					46	6.7		52.4			5.2			
Comments: Ligh	it weathering	g typical. Loca	alized lig	ht to m	ediun	n chec	ks and	splits, ty	vpica	al. Isolat	ed se	vere	checks	and	splits.	
Recommended W	ork:		Reh	ab:		Replac	ce:			Mainter	nance	Nee	ds:			
Urgent:	1-	-5 Years:	6-1	0 Years	:]	N	one: X		Urgent:			1 Year:		2 Year:	
Element Photo:	1															
E					2 T				A ILTI					-		
									2				2	Le la		
Description of I	Photo:	Crossties														

<image>

Description of Photo:

Crossties

Element Photo:



Description of Photo: Crossties

Seguin River Pedestrian Bridge

Element Data:										
Element Group:		Beams/Main	Longitu	dinal Elements	Length:		4.	4		
Element Name:		Floor Beams			Width:		0.	3		
Location:		Spans 10 and	12		Height:		0.	6		
Material:		Steel			Count:		15	5		
Element Type:		Through Plat	e Girdei	ſS	Total Qua	antity:	11	8.8		
Environment:		Benign			Inspected			Yes	No	limited X
Protection System	1:								Ī	Performance
		Units		Excellent	Good		Fair	Poo	or*	Deficiencies
Condition Data:		sa.m			79.2		1.2			
O amagente Lim	itad incracti	on due to lack	ofacco	es Light corrosi	on typical Ass	umod i	isolated ar	as of mod		osion
Recommended W	ork:		Reh	ab: Repl	lace:		Maintenan	ce Needs:		
Urgent:	1-	5 Years:	6-1	0 Years:	None:	x	Urgent:	1 Y	ear:	2 Year:
							<u> </u>			
Element Photos										
Description of I	Photo:	Floor Beams	;							

Element Data:							
Element Group:		Beams/Main Lo	ngitudinal Elements	Length:		34.1	
Element Name:		Stringers		Width:		0.25	
Location:		Timber Trestle S	Spans	Height:		0.4	
Material:		Timber		Count:		8	
Element Type:				Total Quant	ity:	354.6	
Environment:		Benign		Inspected		Yes No	limited X
Protection System	1:	Creosote				-	Performance
Condition Data:		Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data		each		333.4	17.7	3.5	
Comments: Ligr Recommended W	ork:	g, typical. Light to	Rehab: Rep	lace:	Mainter	hance Needs:	
Lirgent:		5 Vears:	6-10 Years:	None: X	Lirgent:	1 Year	2 Year
	I-			None.			2 1 601.
Element Photo:							
	Photo:						
Description of I	Photo:	Stringers					



Description of Photo: Stringers

Element Data:						
Element Group:	Bracing		Length:		5.9	
Element Name:	Bracing		Width:		0.8	
Location:	Timber Trestle Span	S	Height:		0.25	
Material:	Timber		Count:		18	
Element Type:			Total Quanti	ity:	106.2	
Environment:	Benign		Inspected		Yes No	limited
Protection System:	Creosote					Performance
	Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data:	m		99.8	53	11	
Comments: Localized	light to severe checks and	splits, typical. One	brace near first	east pier has	severe rot at the end	of the member.
Recommended Work:	Rel	nab: Repla		Maintena	ance Needs: 9	- Timber Repair
Urgent:	1-5 Years: 6-1	0 Years:	None: X	Urgent:	1 Year:	2 Year: X
				Replace	damaged brace	
Element Photo:					e	
Description of Photo	Bracing					

Element Data:												
Element Group:		Coating				Length:						
Element Name:		Structural St	eel			Width:						
Location:						Height:						
Material:		Paint				Count:						
Element Type:						Total Quant	ity:		840.5			
Environment:		Benign				Inspected			Y	es	No	limited X
Protection System	1:											Performance
Condition Data:		Units		Exc	ellent	Good		Fair		Poor'	•	Deficiencies
Condition Data.		sq.m				168.1		168.1		504.3	6	
Comments: The	two Throug	h Plate Girder	spans, in	nterior f	aces, we	re painted by the	Rota	ary Club	in 200	5 and the	paint	is in generally good
con	dition. The r	emaining coat	tings are g	genera	lly in poo	r condition with s	some	e fair, in c	combi	nation wi	th Cat	egory 2 and 3 rust
con	ditions, and	isolated Cate	gory 4 rus	st cond	itions.							
-					1					[
Recommended W	ork:		Reha	ib:	Repl	ace:		Mainten	ance N	Needs:		
Urgent:	1-	5 Years:	6-10	Years:		None: X		Urgent:		1 Yea	r:	2 Year:
Element Photo:												
Description of I	Photo:	Coating										





Description of Photo: Coating

Element Data:											
Element Group:		Abutments				Length:		6.4			
Element Name:		Abutment W	alls			Width:					
Location:		East Abutme	ent			Height:		1.6			
Material:		Timber				Count:		1			
Element Type:						Total Quant	ity:	10.2			
Environment:		Benign				Inspected		\	Yes X I	No	limited
Protection System	1:	Pressure Tre	ated								Performance
Condition Data		Units		Excelle	nt	Good	Fair		Poor*		Deficiencies
Condition Data.		sq.m		9.7		0.5					
Comments: Rec	ently replace	ed. Isolated ar	eas of li	ght checks.							
Recommended W	'ork:		Reh	ab:	Replac	ce:	Mainter	nance	Needs:		
Urgent:	1-	5 Years:	6-1	0 Years:		None: X	Urgent:		1 Year:		2 Year:
Element Photo:	:										
Description of	Photo:	East Abutme	ent								
Description of I	- 11010.		5111								

Element Data:	:												
Element Group:		Abutments					Length:		5	5.0			
Element Name:		Abutment W	alls				Width:						
Location:		West Abutme	ent				Height:		1	1.2			
Material:		Concrete					Count:		1	1			
Element Type:		Cast-in-Place	•				Total Quar	ntity:	e	6.0			
Environment:		Benign					Inspected			Yes	s X	No[limited
Protection System	ו:												Performance
		Units		Exce	ellent		Good		Fair		Poor*		Deficiencies
Condition Data:		sq.m					2.7		2.0		1.3		
Comments: Ligh Son scal end	ht scaling, ty ne spalls hav ling and disin diaphragm r	pical. Evidenc e wet areas a ntegration. Tw not inspected	e of we nd efflor vo very s	t areas w rescence severe 1,	ith efflo . Very s 500x50>	evere c25 m	nce and loc 1,000x250) m deep spa	calize (75 m IIIs. N	d light to s im disinteg ledium 200	severe gration 0x250x	disintegı . Severe 25 mm sı	ration 1,500 pall. B	around edges. x600x25 deep Ballast wall behind
Recommended W	/ork:		Reh	ab: X	Rep	place:			Maintena	ince Ne	eds:		
Urgent:	1-	5 Years:	6-1	0 Years:	X		None:		Urgent:		1 Year	:	2 Year:
Repair concrete													
Element Photo:													
Description of	Photo:	West Abutm	ent										



Description of Photo:

West Abutment

Element Photo:



Description of Photo: West Abutment

Element Data:																	
Element Group:		Abutments						L	ength:			2.4					
Element Name:		Wingwalls						V	/idth:								
Location:		West Abutm	ent, Sout	th Side	е			F	eight:			1.2					
Material:		Concrete						C	ount:			2					
Element Type:		Cast-in-Plac	e					Т	otal Quant	tity:		5.8					
Environment:		Benign						Ins	spected				Yes	X	No		
Protection System	:															Performance	
Condition Data		Units		E	xcel	lent		6	Bood		Fair			Poor*		Deficiencies	
Sonalion Bala.		sq.m			-				5.2		0.5			0.1			
Comments: Ligh spal	it scaling, ty ls. Some eff	pical. Isolated	t medium the coni	n scali nectio	ing. on to	Media the a	um 15 Ibutm	50x1 ient	50x30mm	dee	ep spall	and fo	our n	nedium	250x	50x15mm deep	
Recommended W	ork:		Reha	ab:		Re	place	:			Mainte	nance	e Nee	eds:			
Urgent:	1-	-5 Years:	6-10) Year	s:				None: X]	Urgent			1 Yea	r:	2 Year:	
-													-				
Element Photo:	1																
Description of F	Photo:	Wingwall															

Element Data:										
Element Group:		Abutments			Length:					
Element Name:		Bearings			Width:					
Location:		West Abutm	ent		Height:					
Material:		Steel			Count:		2			
Element Type:					Total Quar	ntity:	2			
Environment:		Benign			Inspected			Yes] No	limited X
Protection System	1:						_		4	Performance
Condition Data:		Units		Excellent	Good	Fair		Po	or*	Deficiencies
Commonto: Bea	rings have n	eacn	tion with	debris accumul:	ting around the	L L				
Comments. Dea									1	
Recommended W	ork:		Reh	nab: Repl	ace:	Mainte	enance	e Needs:	2	- Bridge Cleaning
Urgent:	1-	5 Years:	6-1	0 Years:	None: X	Urgent	:]1\	/ear: X	2 Year:
						Clean	debri	s from be	earing sea	at.
Element Photo:	:									
Description of	Photo:	Bearings								





Description of Photo:

Bearings

Element Photo:

Element Data:								
Element Group:	Piers		Le	ngth:				
Element Name:	Shafts/Columns/	Pile Bents	W	idth:		0.3 dia.		
Location:	Timber Trestle S	pans	He	eight:		3.0		
Material:	Timber		Co	ount:		36		
Element Type:			To	tal Quanti	ity:	102.0		
Environment:	Benign		Insp	pected		Yes	No	limited X
Protection System:	Creosote							Performance
Condition Data:	Units	Excellent	t Go	bod	Fair	F	200r*	Deficiencies
o isht waatharin	sq.m		9; modium obs	5.9	5.1		1.0	
Comments: Light weathering	g, typical. Localize					di.		
Recommended Work:		Rehab:	Replace:		Mainter	nance Needs	:	
Urgent: 1-	-5 Years:	6-10 Years:	N	one: X	Urgent:	1	Year:	2 Year:
Element Photo:								
<image/>	<image/>							

Element Data:																	
Element Group:	Piers							Length:				5.0					
Element Name:		Shafts/Columns/Pile Bents						Wi	Width:				3.5				
Location:		Spans 10, 11, and 12							Height:			4.8					
Material:		Concrete							Count:			3					
Element Type:		Cast-in-Place							Total Quantity:			297.3					
Environment: Benign								Inspected				Yes No limited				limited X	
Protection System:								Cood Foi			Foir	Performant Poficional				Performance	
Condition Data:		Units		Excellent				47	474.0		Fair 64.2		Poor"			Deficiencies	
Comments: Limi pier to se	ited inspecti has localize evere erosio	on due to lack of access. Light to very se d exposed rebar. Narrow to medium crac n at base of all piers at waterline.							ere scaling and large ar ing with staining and ef			reas of light to severe disintegration. East fflorescence noted at all piers. Areas of light					
									7			_	_	_			
Recommended Work:			Reha	Rehab: X Replace:							Maintenance Needs:						
Urgent:	1-	5 Years:	6-10) Yea	rs:	X		Ν	one:]	Urgent:			1 Year:		2 Year:	
Abutments originally designed for railway loading - deterioration not anticipated to																	
impact load carrying capacity at this time. Future repairs should be planned for.																	
Element Photo:	:																
6.225	1														1		
												/	in the				
									100 Martin	11	Constant of		要は				
									1			2 AP					
									11/1	<u> </u>	Sec. Sec.	4					
														ľ	/		
									N								
		Transa							1.24			्य					
	, Alter	A BRIT			a same							a la la	State 1		1 1		
									No.		ALL ALL			in the	1		
												Salar .					
													1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		1		
										all a							
												_11					
		Charles and		123						- Andrew		1000					
							1	Contraction of the second		No.							
							A ST										
							-	5		E		1					
	1			1 14						1	100					12	
Description of I	Photo:	West Pier W	/est Face	9													





Description of Photo:

West Pier East Face

Element Photo:



Description of Photo: Centre Pier East Face
Element Data:							
Element Group:		Piers		Length:		4.3	
Element Name:		Caps		Width:		0.3	
Location:		East Abutment		Height:		0.3	
Material:		Timber		Count:		1	
Element Type:				Total Quant	ity:	5.2	
Environment:		Benign		Inspected		Yes X No	limited
Protection System	1:	Creosote		<u>.</u>		·	Performance
Osmalition Datas		Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data:		sq.m		5.2			
Comments: Ligh	nt weathering	g, typical. Localized li	ght checks and sp	lits.	Mainton	anco Noodo:	
Urgent:	1-	5 Years: 6-1	0 Years:	None: X	Urgent:	1 Year:	2 Year:
Element Photo:					·		
	Photo:						
Description of I	Photo:	Plie Cap					

Element Data:																		
Element Group:		Piers						Ler	ngth:			5.0						
Element Name:		Caps						Wio	dth:			0.35						
Location:		Timber Trest	le Spans					Hei	ght:			0.35						
Material:		Timber						Со	unt:			6						
Element Type:								Tot	al Quant	ity:		42.0						
Environment:		Benign						Insp	ected				Yes	Χ	No		mited	
Protection System	:	Creosote														F	erforma	ance
Condition Data:		Units		E	xcell	ent		Go	od		Fair			Poor*		[Deficien	cies
Sonation Bala.		sq.m						37	.4		4.2			0.4				
Comments: Ligh	it weatherin	g, typical. Loc	alized lig	ht to	seve	ere me	dium	cheo	cks and a	spli	ts.		Nee	4				
Recommended w			Rena			кер —	lace:			1	Iviainter	nance	INEE	as:		1		<u> </u>
Urgent:	ommended Work: Rehab: Repla Urgent: 1-5 Years: 6-10 Years:										Urgent:			1 Yea	:		2 Year:	
Element Photo:																		
Description of F	Photo:	Pile Cap																

Element Data:																		
Element Group:		Piers						Le	ngth:									
Element Name:		Bearings						Wi	dth:									
Location:								He	eight:									
Material:		Steel						Co	ount:			12						
Element Type:								To	tal Quan	tity:		12						
Environment:		Benign						Insp	pected				Yes		No	li	mited	X
Protection System	1:						_			_			_			P	erforma	ance
Condition Data:		Units		E	xce	llent		Go	bod		Fair			Poor'			Deficien	cies
		each							6		6							
Comments: Lim	ited inspecti	on due to hei	ght restrie	ction	. De	ck Pl	late Gi	rder	span, be	arin	gs appea	ar to I	have	mediu	m corı	rosion	at eas	t end.
Rem	naining bear	ings assumed	I to be in	good	to t	fair c	onditio	on as	a result	t of c	corrosior	۱.						
Decembranded W	le el c		Daha	Г	_				1		Mainta		. No.	da				
Recommended w			Rena			к —	epiace		<u> </u>		wante	nance		eus.				
Urgent:	1-	5 Years:	6-10	Year	rs:			Ν	one: X		Urgent			1 Yea	r:	:	2 Year:	
Element Photo:																		
Description of I	Photo:	Pier Bearing	IS															



Description of Photo: Pier Bearings

Element Data:									
Element Group:	Retaining W	alls		Length:		40.0)		
Element Name:	Walls			Width:					
Location:	Southwest			Height:		1.2			
Material:	Concrete			Count:		2			
Element Type:	Cast-in-Plac	e		Total Quant	ity:	96.0)		
Environment:	Benign			Inspected			Yes	No	
Protection System:									Performance
Condition Data:	Units		Excellent	Good	Fair		P	'oor*	Deficiencies
	sq.m			96.0					
Recommended Work:		Doh	ah: 🔲 Popl	200:	Mainte	mance	Needer		
		Rena			1			1 <u> </u>	
Urgent:	1-5 Years:	6-10) Years:	None: X	Urgent	.:] 1	Year:	2 Year:
Element Photo:									
Description of Photo	o: Retaining W	all							

Element Data:																	
Element Group:		Retaining Wa	alls					L	eng	ith:			40	.0			
Element Name:		Railing Syste	em on W	alls				V	Vidt	h:							
Location:		Southwest						ŀ	leig	ht:			1.	1			
Material:		Timber						C	Cour	nt:			2				
Element Type:								T	otal	Quant	ity:		80	.0			
Environment:		Benign						In	spec	cted				Yes		No	limited
Protection System	1:						_							_			Performance
Condition Data:		Units		E	Exce	llent		(3000	d		Fai	•		Poor	*	Deficiencies
		m							50.0)		20.0)		10.0		
una	ttached.	, , , , , , , , , , , , , , , , , , ,	, oken p				9 90										
Recommended W	ork:		Reh	ab:		R	Repla	ce:				Main	tenan	ce Nee	eds:	3 - Ra	ailing System Repair
Urgent:	Urgent: 1-5 Years: 6-10 Years:											Urger	nt:		1 Yea	ar:	2 Year: X
						Repla top ra	ice m ail.	issing	and b	roken	pickets, anchors and						
Element Photo:	:																
Description of I	Photo:	Railing Syste	em														

Element Photo:



Description of Photo: Railing System

Element Data:	:											
Element Group:		Embankments a	& Strea	ams	Le	ength:						
Element Name:		Streams and Wa	aterwa	iys	W	idth:						
Location:		North and Sout	h		He	eight:						
Material:					C	ount:						
Element Type:					Тс	otal Quanti	ity:		1			
Environment:		Benign			Ins	pected			Ye	s X	No[limited
Protection System	1:											Performance
Condition Data:		Units		Excellent	G	ood		Fair		Poor*		Deficiencies
		all		X				-				
Comments: Arm	iour around	east end barriers	s. wate	Prway is free flow	ving. No	observed		ects.				
Recommended W	/ork:		Reha	ab: Repl	ace:	<u> </u>		Maintena	ance Ne	eds:		
Urgent:	1-	5 Years:	6-10	Years:	Ν	lone: X		Urgent:		1 Yea	r:	2 Year:
Element Photo:	:											
Description of I	Photo:	Waterway Look	king U	pstream								



Description of Photo: Waterway Looking Upstream

Element Data:	:																
Element Group:		Embankmen	ts & Stre	ams			Leng	gth:									
Element Name:		Embankmen	ts				Widt	th:									
Location:		All Quadrant	s				Heig	jht:									
Material:		Trees, Shrub	s and Ea	arth			Cou	nt:			4						
Element Type:		Vegetation					Tota	I Quanti	ity:		4						
Environment:		Benign				I	Inspe	cted			· ·	Yes	X	No	lii	mited	
Protection System	1:								_		<u> </u>				P	erforma	nce
Condition Data:		Units		Ex	cellent		Goo	d		Fair			Poor*		D	eficien	cies
Condition Data.		each			4												
Comments: No o	observed de	rects. Embank	iments a	re vege	etated and	d appe	ear st	able.									
Recommended W	/ork:		Reh	ab:	Rep	lace:				Mainter	nance	Nee	ds:				
Urgent:	1-	5 Years:	6-1) Years			Nor	ne: X		Urgent:			1 Year	:	2	Year:	
Element Photo:	:																
				の対応になった。これには、これになっていた。										シートートートートートートートートートートートートートートートートートートート			
Description of I	Photo:	Embankmer	nt														





Description of Photo: Embankment

Element Data	:																
Element Group:		Accessories					Len	gth:									
Element Name:		Signs					Wid	Ith:									
Location:		East End					Hei	ght:									
Material:							Соι	int:			3						
Element Type:							Tota	al Quanti	ity:		3						
Environment:		Benign					Inspe	ected			\ \	Yes	X	No	lir	nited	1
Protection System	ו:											L			Pe	rformance) ;
Condition Data [.]		Units		Exc	ellent		Go	bc		Fair			Poor*		D	ficiencies	
Condition Data.		each					2			1							
Comments: One	e caution sig	n in poor con	dition ar	id has b	een dam	laged,	, beni	t and is v	weat	thered. C	one st	top s	sign ah	ead si	gn has	graffiti.	
Recommended W	/ork:		Reh	ab:	Rep	blace:				Mainten	ance	Nee	ds:				
Urgent:	1-	5 Years:	6-1	0 Years:			No	ne: X		Urgent:			1 Year	:	2	Year:]
Element Photo	:																
Description of	Photo:	Signs	EGU	IIN- ST ST CAUT PEDESTI FITNESS IN USE SNOWMO USE EXTIN	RIV RIV ION IANS TRAIL BILES REME		Rm										
		Signo															

Element Data:														
Element Group:		Accessories				Length:								
Element Name:		Utilities				Width:								
Location:		Along Bridge)			Height:								
Material:		Steel Light Po	osts			Count:			4					
Element Type:		Lighting				Total Quant	tity:		4					
Environment:		Benign				nspected				Yes	X	No	limited	
Protection System		Paint			_							- ì	Performance	
1 Toteotion Oystem		Unite		Excellent		Good		Fair			Poor*	_	Deficiencies	
Condition Data:		onito		LAGenerit		4		i ali			1 001		Denciencies	
		each				4								
Recommended W	ork.		Reh	ah: 🗌 Re	onlace.			Mainten	ance	Nee	15.			
							1	Mainten		Need				
Urgent:	1-	5 Years:	6-1	0 Years:		None: X		Urgent:			1 Year	:	2 Year:	
Element Photo:	1													
Description of F	Photo:	Light Utility												

Element Data:														
Element Group:		Accessories				Ler	igth:							
Element Name:		Other				Wic	Ith:							
Location:		Length of Stru	cture			Hei	ght:							
Material:		PVC				Со	unt:			1				
Element Type:		Electrical				Tot	al Quant	tity:		1				
Environment:		Benign				Inspe	ected			L 1	Yes		No[limited X
Protection System	:	Conduit			_					_				Performance
Condition Data:		Units		Excellent	t	Go	bd		Fair			Poor*		Deficiencies
		each		1 		-l - f 4								
Recommended W	ork:	5 Years	Reh		Replac			1	Mainter	nance	Needs	S:		2 Vear
	'-		0-1					J	orgent.			rear	·	
Element Photo:	1													
Description of I	Photo:	Electrical Utility	ties											
			ແຮວ											

Element Data:	:														
Element Group:		Approaches				L	ength:		6.0	0					
Element Name:		Wearing Sur	face			V	/idth:		3.(0					
Location:		West and Ea	st End			ŀ	eight:								
Material:		Gravel				(ount:		2						
Element Type:						Т	otal Quant	ity:	36	.0					
Environment:		Benian				In	pected			Yes	X	ΝοΓ	lir	nited [
Protection System														rformo	200
Frotection System	I.	l Unite		Evcol	llont	(Sood	F	air		Poor*	_		oficiono	ice
Condition Data:		Units		EXCE	lient		000		all		FUUI		U	encienc	162
		sq.m					36.0								
Comments: Ligr Recommended W	nt wear typic	al. No other o	bserved	nab:	Repla	ace:		Ма	intenand	ce Nee	eds:				
Urgent:	1-	5 Years:	6-1	0 Years:			None: X	Urg	ent:		1 Year	:	2	Year:	
								<u> </u>		_					
Element Photo:	:														
Description of	Photo:	Approach S	urface												

Element Data:											
Element Group:		Approaches				Length:		3.65	j		
Element Name:		Barrier				Width:					
Location:		East End				Height:		1.1(SW), 1.3 (SE)		
Material:		Timber				Count:		2			
Element Type:						Total Quanti	ty:	7.3			
Environment:		Benign				Inspected			Yes X	No	
Protection System	1:	Pressure Tre	ated	F ace lless t		Orad	Fair		D*	_	Performance
Condition Data:		Units		Excellent		G000	Fair		Poor	_	Deficiencies
	2 0m light a		ooot tor	timber No othe		U./					
Comments: One											
Recommended W	ork:		Reh	nab: 📃 Rep	lace:		Mainter	nance	Needs:		
Urgent:	1	-5 Years:	6-1	0 Years:		None: X	Urgent:		1 Year:		2 Year:
Element Photo:	:										
Description of I	Photo:	Approach Ba	arrier								

Repair and Rehabilit	ation Required:		Pric	ority		Estimated Structural	
Element ¹	Repair and Rehabilitation Required ²	6 to 10 Years	1 to 5 Years	Within 1 Year	Urgent	Cost	
Structure	Demolition						
Structure	Replacement						
OR							
Deck	Rehab. =						
Sidewalk/Curb	Rehab. =						
Barrier	Rehab. =						
Joints	Rehab. =						
Beams	Rehab. = Repair steel	Х				\$80,000.00	
Abutment	Rehab. = Repair Concrete	х				\$15,000.00	
Pier	Rehab. = Repair Concrete	Х				\$600,000.00	
Wingwalls	Rehab. =						
Retaining Wall	Rehab. =						
Estimated Rehabilitate	ed or Replacement Structure Dimensions ³						
Total Deck Lengt	h (m) Overall Str. Width (m)			Total Str	uctural Cost	\$695,000.00	

1 - Indicate specific costs for structure replacement OR for rehabilitation under the given headings

2 - Give a very brief description of the rehabilitation work required.

3 - Estimated structure dimensions after completion of the proposed work - if it is expected to change.

Associated Work	Comments	Estimated Associated Work Cost
Approaches		
Detours	Trail Closure Signage	\$2,000.00
Traffic Control		
Utilities		
Other	Engineering and Contingency	\$100,000.00
	Mobilization / Demobilization, General, Insurance	\$100,000.00
	Access / Dewatering / Environmental	\$150,000.00
	Total Associated Work Cost	\$352,000.00
	Total Construction Cost	\$1,047,000.00

Justification:

The most westerly Span 12 Through Plate Girder has several vertical stiffeners with 100% section loss at the interface with the bottom flange, and there is isolated severe corrosion and section loss on other members generally towards the abutment, however load carrying capacity is not a concern at this time. The three concrete piers supporting Spans 10, 11 and 12 have severe concrete deterioration along the waterline. Rehabilitation is recommended to include Span 12 steel repairs and concrete repairs for the three piers. For maintenance, timber member replacements will be ongoing, and the west abutment bearings should be cleaned to remove debris and other deleterious material. Note that the barrier height could be considered to be increased to 1.37 m to meet current code requirements for cyclists, however 1.2 m can be used based on owner approval.

				MTO Site Number:	
Inventory Data:					
Structure Name	Seguin Street Bri	dge			
Main Highway #	Seguin Street	On X or Under Structure	Service on Structure	Navig. Water Non-Navig. Water Rail X Road X Ped. Other	
Location Description	0.08km West of R	ver Street	Service under:	X Navig. Water Non-Navig. Water Rail Road Ped. Other	
Owner/Custodian	Town of Parry Sou	ind			
MTO Region	Northeastern		Latitude	45° 20' 37" N Longitude 80° 01' 52" W	1
Regional Engineer			Heritage Designation:	X Not Cons. Cons./Not App. List/Not I Desig. Desig./Not List Desig. & List	Desig.
MTO Area	52 - Huntsville		Hwy Class:	Freeway Arterial X Collector Local	
Old County	44 - Parry Sound		Posted Speed	50 No. of Lanes 4	
Township	452 McDougall		AADT	Unknown % Truck Unknown	
Structure Type 1	Trapezoidal Box	Beam Girders			
Structure Material 1	Weathering Steel		Traffic Directional B	ound W-E	
Structure Type 2	Concrete Deck				
Structure Material 2	Cast-in-Place Co	ncrete	Inspection Frequen	cy 2 (years)	
Total Deck Length	55.9	(m)	Inspection Year	2022	
Overall Str. Width	20.6	(m)	Inspection Duration	3 (hrs)	
Culvert Length	0	(m)			
Total Deck Area	1151.54	(sq.m)			
Roadway Width	15.0	(m)	Min. Vertical Cleara	nce (m)	
Skew Angle	0	(Degree)	Detour Distance	2.2 (km)	
No. of Spans	1		Fill on Structure	0 (m)	
Span Lengths	55.0			(m)	
For retaining wall:					
Total Wall Length		(m)	Max. Wall Height	(m)	
Total Wall Area		(sq.m)	Ave. Wall Height	(m)	
			Angle of Backfill	(Degrees)	
Historical Data					
Year Built	1987		Year of superstruct.	Constructed 1987	
Last Reg. OSIM Inspe	ection 2020		Year of Last Minor F	Rehab. N/A	
Last Enh. OSIM Inspe	ection		Year of Last Major I	Rehab N/A	
Mark History (Data/d	accentration)		Current Load Limit	/ / (to	nnes)
<u>איטוג הוגנטיץ: (Uate/d</u>	<u>escripuon)</u>			an evaluation for load capacity was completed	l and

MTO Site Number: **Field Inspection Information:** Type of Inspection: Reg. OSIM Enh. OSIM Date of Inspection: June 29, 2022 Alison Friebel Inspected By Others in Party: Brian Wood P.Eng, Bill Glover Rescue Technician from Safety Design Systems Eng. Access Equipment: Tape measure and Camera Special Access Equipment Access ladder, Air monitor, Flashlight, Restraining harness, Retrieval system Temperature °C Sun and Cloud Weather 20 Priority Additional Investigations Required: Estimated Cost Urgent None Normal Material Condition Survey Х Detailed Deck Condition Survey: Х Non-destructive Delamination Survey of Asphalt-Covered Deck: Х Concrete Substructure Condition Survey: Х Х **Detailed Coating Condition Survey:** Detailed Timber Investigation: Х Post-Tensioned Strand Investigation: Х Underwater / Boat Access Investigation Χ \$20,000.00 Χ Fatigue Investigation Seismic Investigation Χ Х Structure Evaluation: Χ Monitoring Deformations, Settlements and Movements: Х Crack Widths: Χ RSS Horizontal movements of face: Х RSS Vertical movements of overall structure: Χ Х RSS Local movements or deterioration of face elements: RSS Horizontal movements within overall structure: Х RSS Vertical movements within overall structure Х RSS Lateral earth pressure at the back of facing elements Х "Underwater/Boat Access Investigation" refers to using a Investigation Notes: **Total Cost** \$20,000.00 Bridgemaster to inspect outside faces of box girders, and **Overall Structure Notes:** Recommended Work on Structure None X Minor Rehab. Major Rehab. Replace Timing of Recommended Work X 1 to 5 years 6 to 10 years Urgent Bridge is in generally good condition. Rehabilitation is recommended to clean inside of girder Overall Comments: ends and apply a new coating, repair sidewalk concrete, and upgrade approach guide rail to bridge connections. Built in 1987, a Bridgemaster inspection of the exterior of the girders should be undertaken, it is unknown when if any previous Bridgemaster inspection was conducted. Date of Next inspection: 2024 **Overall Bridge Condition** % Poor in Deck % Poor in Beams % Poor in Substructure % Poor in Barrier Bridge Condition Index (BCI or BCIp) BClp BCI 0% 0% 0% 0% 99.87 81.72 **Overall Bridge Sufficiency** Traffic Economic Width Alignment Bridge Sufficiency Index (BSI) 76.72 0 5 0 0

Element Data:									
Element Group:	Decks		Length:		55.9				
Element Name:	Wearing Surface		Width:		15.0				
Location:			Height:		0.1				
Material:	Asphalt		Count:		1				
Element Type:			Total Quantity	r:	838.5				
Environment:	Severe		Inspected		Yes X No	limited			
Protection System:				-		Performance			
Condition Data:	Units	Excellent	Good	Fair	Poor*	Deficiencies			
Condition Bata.	sq.m		726.7	111.8					
Comments: Light ravelling,	typical. Center 2 land	es have medium whe	el rutting full leng	yth of bridge	e (55.9m x 0.5m x 4).				
Recommended Work:	R	ehab: Replac	:e:	Maintena	ance Needs:				
Urgent: 1	-5 Years: 6	10 Years:	None: X	Urgent:	1 Year:	2 Year:			
Element Photo:									
Description of Photo:	Wearing Surface								

Element Data:	:											
Element Group:		Decks			Length:		55.9					
Element Name:		Deck Top (wit	h Thin	Slab)	Width:		20.6					
Location:					Height:		0.25					
Material:		Concrete			Count:		1					
Element Type:		Cast-in-Place			Total Quant	ity:	1151.5					
Environment:		Moderate			Inspected		Yes	No	X limited			
Protection System	ı:								Performance			
Condition Data:		Units		Excellent	Good	Fair		Poor*	Deficiencies			
		sq.m	lan haa	ad an aankali	1151.5							
Comments: ASS		n good condit		eu on asphait.								
Recommended W	/ork:		Reh	ab: Repl	ace:	Mainten	nance Need	ls:				
Urgent:	1-	5 Years:	6-1) Years:	None: X	Urgent:		1 Year:	2 Year:			
Element Photo	:											
Description of	Photo:	Deck Top										

Element Data:													
Element Group:	Decks					Length:		55.9					
Element Name:	Soffit - Thin S	Slab				Width:		1	14.0				
Location:	Exterior Soff	it				Height:							
Material:	Concrete					Count:		1	1				
Element Type:	Cast-in-Place	;				Total Quant	ity:	7	782.6				
Environment:	Benign					Inspected			Yes X	limited			
Protection System:											Performance		
Condition Data:	Units		Exce	ellent		Good		Fair	Poo	r*	Deficiencies		
		772.6		8.0	2.0								
Comments: Light scalin c/c avg.). Se	g typical. Narrow t veral cracks with v	ng overha	ang soffit at r	egular i	ntervals (+/- 2.0m								
Recommended Work:		Reh	ab:	Rep	lace:		٦	Maintena	nce Needs:				
Urgent:	1-5 Years:	6-10) Years:			None: X] l	Jrgent:	1 Ye	ar:	2 Year:		
Element Photo:													
Description of Photo:	Exterior Soff	it											



Seguin Street Bridge

Element Data:	1														
Element Group:		Decks					Length:			55.9					
Element Name:		Soffit - Insid	e Boxes				Width: 2.2								
Location:		Inside Boxes	5				Height:								
Material:		Concrete					Count:			3	3				
Element Type:		Cast-in-Place	9				Total Qua	antity:		368.9	9				
Environment:		Benign					Inspected			`	Yes	Χ	No[limited	
Protection System	1:													Performance	
Condition Data:		Units		Exc	ellent		Good		Fair			Poor*		Deficiencies	
Condition Data.		sq.m					363.9		4.0			1.0			
Comments: Ligh isola Rem	nt scaling, ty ated areas of nainder of so	pical. North g f efflorescenc offit areas hav	l.0 m of o and g / to me	narro irder t dium t	w to mediu op flange in ransverse (um cra nterfac cracks	cks with ce, and or s.	efflor ne 0.5	esce 5 m c	nce. Sou rack wit	uth gi h effl	irder soffit has orescence.			
Recommended W	'ork:		Reha	ab:] Re	place:			Mainten	ance	Need	ds:			
Urgent:	1-	5 Years:	6-10	Years:			None:	X	Urgent:			1 Year:		2 Year:	
Element Photo:	1														
	14														
Description of I	Photo:	North Girder	Interior	Soffit											





Element Data:	:												
Element Group:		Decks				Length:		0.5					
Element Name:		Drainage Sys	tem			Width:		0.2					
Location:		Along face of	f sidewa	lks		Height:							
Material:		Steel				Count:		8					
Element Type:		Metal Drain P	ipes			Total Quant	ity:	8					
Environment:		Severe				Inspected			Yes	X	No	limited	
Protection System	n:	Hot Dip galva	nizing								Ī	Performar	nce
Osmalition Data:		Units		Excellent		Good	Fair			Poor*		Deficienc	ies
Condition Data:		each				8							
Comments: Ligh	ht corrosion a	at bottom of d	rain pip	es, typical. No	o other o	observed def	ects. No dek	oris bu	uilduj	p in dra	in grat	tes.	
Recommended W	/ork:		Reh	ab: F	Replace:		Mainte	nance	Nee	ds:			
Urgent:	1-	5 Years:	6-10) Years:		None: X	Urgent	:		1 Year:		2 Year:	
Element Photo:	:												
Description of l	Photo:	Drainage					H						
Description of I	Photo:	Drainage											

Element Data:										
Element Group:		Joints			Length:					
Element Name:		Seals/sealant	ts		Width:					
Location:		East and Wes	st		Height:					
Material:		Neoprene			Count:		2			
Element Type:		Strip Seal			Total Quant	ity:	2			
Environment:		Severe			Inspected		Yes X	Yes X No limited		
Protection System	1:								Performance	
Condition Data:		Units		Excellent	Good	Fair	Poc	r*	Deficiencies	
Comments: Sea	ls are in gen	each erally good co	ondition.	No evidence of I	2 eakage or other p	performance	e deficiencies.			
Recommended VV	Ork:		Reh	ab: Repl		Mainte	enance Needs:	2 -	Bridge Cleaning	
Urgent:	1-	-5 Years:	6-1	0 Years:	None: X	Urgent	:: <u> </u>	ear: X	2 Year:	
						Clean	joint gap and se	∍als yea	rly.	
Element Photo:										
Description of I	Photo:	Joint Seals								

Element Data:												
Element Group:		Joints				Length:		15.0				
Element Name:		Concrete End	Dams			Width:		0.5				
Location:		East and Wes	st			Height:						
Material:		Concrete				Count:		4	4			
Element Type:						Total Quant	ity:	30.0	30.0			
Environment:		Severe				Inspected		Y	′es X	No	limited	
Protection System	1:										Performance	
Condition Data:		Units		Excellen	ıt	Good	Fair		Poor*	_	Deficiencies	
		sq.m				30.0						
App	roximately 1	.0m of light cr	acks.	ah:	Papiag		Maint	ananca	Needs:			
							1		Neeus.			
Urgent:	1-	5 Years:	6-10) Years:	<u> </u>	None: X	Urgen	t:	1 Year		2 Year:	
Element Photo:												
Description of I	Photo:	Joint Concret	te End I	Dam								



Description of Photo:

Element Data:												
Element Group:		Joints			Length:		20.6					
Element Name:		Armouring/R	etaining	Devices	Width:							
Location:		East and We	st		Height:							
Material:		Steel			Count:		8					
Element Type:		Angle			Total Quant	ity:	164.8	164.8				
Environment:		Severe			Inspected		Yes X No limited			limited		
Protection System	:									Performance		
Condition Data:		Units		Excellent	Good	Fair		Poor*		Deficiencies		
Condition Data.		m			160.8	4.0						
Recommended W	ork:		Reh	ab: Repl	ace:	Mainter	nance Nee	eds:				
Urgent:	1-	-5 Years:	6-10) Years:	None: X	Urgent:	\square	1 Year:		2 Year:		
								_				
Liement i noto.			1									
Description of F	Photo:	Joint Armou	r									

Element Data:									
Element Group:	Sidewalk/Cur	.p	Length:	55	5.9				
Element Name:	Sidewalks an	d Medians	Width:	2.	8				
Location:	North and So	outh	Height:	0.	25				
Material:	Concrete		Count:	2					
Element Type:	Sidewalk		Total Quant	ity: 31	13.0	0			
Environment:	Severe		Inspected		Yes X No	limited			
Protection System:						Dorformanaa			
	Linite	Excellent	Good	Fair	Poor*	Deficiencies			
Condition Data:	Units	LACENETIL	Guu	i ali	FOOI	8 - Pedestrian / vehicular			
	sq.m		307.7	3.1	2.2	hazard			
Comments: Light scali	ng, typical. Wear an	d abrasions along top edg	ges, typical. Nort	h sidewalk has	11 - 2.0 m narrow t	o medium cracks, 2 -			
1.5m narro	w cracks and 1 ligh	t spall. South sidewalk has	s 13 - 2.0m light	to medium cra	cks, severe 2.0x0.6	m spall with rebar			
exposed re	bar, 300x300x25mm	n medium spall at east end	d, and 3-500x100	mm light spalls	s. One 1.0x1.0m are	a of delamination.			
Recommended Work:		Rehab: X Repla	ce:	Maintenan	ce Needs:				
Urgent:	1-5 Years: X	6-10 Years:	None:	Urgent:	1 Year:	2 Year:			
Repair spalls and delan	nination area.								
Element Photo:									
			X		3				
	A.								
	A Comment								
	for a series	the second second with the second							
		the states							
RN V		Fr. A							
DIND	and the second second	/	A STATISTICS	CAR-	1.				
			1722 (S)	- Aller					
	1	and the second	1 month						
			A. Star	K					
		and the second second		C.P.S.					
		and the second sec		and the second					
		and the second second	Sale Barrense	and for the second					
A.		and the state							
		and the second	and the second						
State Street									
Departmention of Dhata	Sidowalk Co	norate Spall and Deleging	ation						
Description of Photo:	Sidewalk CO	norete opan and Delanina	auOH						

Element Photo:



Description of Photo:

Sidewalk Concrete Delamination

Element Photo:



Description of Photo:

Sidewalk Concrete Delamination

Element Data	:																
Element Group:		Barriers					Lei	ngth:			72.0)					-
Element Name:		Railing Syste	ems				Wi	dth:									_
Location:		North and So	outh				He	ight:									
Material:		Aluminum					Co	unt:			2						
Element Type:		4 Rail Metal	Railing				To	tal Quant	ity:		144	.0					
Environment:		Severe					Insp	ected				Yes	X	No	llim	nited	
Protection System	י.													1	 	formance	
Trolection bysten		 Linits		Fv	ollont		Go	od		Fair			Poor*			Imited Performance Deficiencies of aluminum	
Condition Data:		Offita			Sellent	-	Good			1 011			1 001	_	Deliciencies		
Comments: Two sur	 o 100x100mn face.	n deformation	s with p	erforatio	ons on	north	rail. L	ocalized	l abr	asions f	throu	ghout	U.2 t with s	ome	wear of	aluminum	
Recommended W	/ork:		Reh	ab:	R	eplace	:			Mainte	nance	e Need	ds:				
Urgent:	1-	-5 Years:	6-1	0 Years:			N	one: X		Urgent:]	1 Year		2	Year:	
Element Photo	:																
Description of	Photo:	Railing Syst															
Description of	Photo:	Railing Syste	em														



Description of Photo:

Seguin Street Bridge

Element Data:	:													
Element Group:	Beams/Ma	n Longitudin	al Eleme	ents	Le	ngth:		2						
Element Name:	Girders Ex	erior	ior					2.2						
Location:	Ends							2.8						
Material:	Steel							6						
Element Type:	Trapezoida	l Box	Jox			Total Quantity:			93.6					
Environment:	Moderate					Inspected			Yes		limi	ed X		
Protection System	: Weathering	Steel with E	poxyma							ormance				
Condition Data:	Units		Excelle	ent	Go	bod	Fair			Poor*	Defi	ciencies		
Comments: Five	200x200mm areas of m	edium corros	sion at th	he bott	om flang	ge at drai	n holes. Liç	ght cor	rrosio	on at top	of so	outhwes	t girder.	
2														
Recommended W		Rehab:		Repla	ace:		Mainte	enance						
Urgent:	1-5 Years:	6-10 Y	ears:	<u> </u>	N	one:	Urgent	:		1 Year:		2 Y	ear:	
Clean and recoat Boxes regarding	t in conjunction with inte cleaning.	rior cleaning	g. Refer t	to Bear	ns - Insi	de								
Element Photo	:													
Description of	<image/>	tterior End			26									
Description of	FIIOLO. GIIUEI - EX													

Element Photo:



Girder - Exterior End

Element Photo:



Girder - Exterior End Description of Photo:
Element Data:							
Element Group:		Beams/Main Longit	udinal Elements	Length:		52.7	
Element Name:		Girders Exterior		Width:		2.2	
Location:		Middle		Height:		2.8	
Material:		Steel		Count:		3	
Element Type:		Trapezoidal Box		Total Quan	tity:	1233.2	
Environment:		Benign		Inspected		Yes No	limited X
Protection System	1:	Weathering Steel					Performance
Condition Data:		Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data.		sq.m	1233.2				
Recommended W Urgent:	/ork:	Re 5 Years: 6-	hab: Replace 10 Years:	ce: None: X	Mainte	nance Needs:	2 Year:
Element Photo:	:						
Description of I	Photo:	Girders - Exterior N	liddle				

Element Data:	:													
Element Group:		Beams/Main	Longitu	dinal Elem	ents		Length:		5	55.9				
Element Name:		Inside boxes					Width:		2	2.2				
Location:		North Girder					Height:		2	2.8				
Material:		Steel					Count:		1					
Element Type:		Trapezoidal	Box				Total Quanti	ity:	4	436.0				
Environment:		Benign				I	nspected			Yes X No				
Protection System	ו:	Weathering	Steel wit	h Epoxyma	astic Co	pating	g at Ends		-		Performance			
Condition Data:		Units		Excelle	ent		Good		Fair	Poor*	Deficiencies			
Condition Data.		sq.m		414.	0		12.0		7.0	3.0				
Comments: Med	lium corrosio	on along botte	om, 8.0n	nx200mm a	t west a	and e	east end of g	jirde	er. The coa	ting along the botton	n flange and			
stiff	ieners has fa	iled exhibiting	g Catego	ory 2 to 4 s	urface r	rust a	at west end.	1 sc	q.m of whit	te deposits on bottom	n. Steel stiffeners			
have	e areas of lo	calized severe	e corros	ion with se	ction lo	oss at	t ends of gir	der.	20m from	west end 4.0m of effl	orescence			
dep	osits at top f	lange and de	ck interf	ace. Both e	ends ha	ve si	gnificant bu	ild-i	up of debri	is.				
	Recommended Work: Rehab: X Replace: Maintenance Needs:													
Recommended W	/ork:		Maintena	nce Needs:										
Urgent:	1-	5 Years: X	6-1	0 Years:			None:		Urgent:	1 Year:	2 Year:			
Clean debris fror	m girder end	s, recoat the g	girder er	ıds.										
									I					
Element Photo:														
	•													
						1		-						
									1					
	- Come							1			and the second se			
ALC: NO							N	-			anter an			
and the second second		The.		Land and the second			- Cartestant							
and the state							41							
			i				•							
and the second							· · ·		1	sinte all	1. 1. 1.			
1 15	, M				2	13	14		Martin		115.64			
1 the the	1 17	13	1			18	11 B	111			ll http://www.com/article/arti			
1 11111	1\ \\										19/1			
1 1111			14			1								
									1		11			
	¥	11 112		1-4-1										
A = VV		10		Ne-p-		- die								
			K	1-4-	1									
11 - 11 6			W			10		4						
		T .				and a second				B. HILL	812 - S			
Sec. 18	V St					2.			A.//	T Will Die of	Here			
CONTRACTOR OF		A State			5-1	-	1.5				134			
and the second		a produce												
		14	- 2	-1.5										
	100		6	1 23	Sec. 1	St.	-				115			
1 11 11	Carlo	Constant of the second	2244	4.524	1.55	i.e.								
Ris C	9/C	MAN	1.6.8		12		and for the second		1. N					
				914		1.	1993 A.	1	100	The Lat				
Description of I	Photo:	East Girder	End											



Element Photo:



Description of Photo: West Girder End

Element Data:														
Element Group:		Beams/Main	Longitu	dinal Elen	nents		Length:		Į.	55.9				
Element Name:		Inside boxes					Width:		2	2.2				
Location:		Center Girde	r				Height:		2	2.8				
Material:		Steel					Count:		1	1				
Element Type:		Trapezoidal	Box				Total Quan	ntity:	4	436.0				
Environment:		Benign				I	nspected			Ye	es X	No[limited	
Protection System	1:	Weathering S	Steel wit	h Epoxym	astic C	oatin	g at Ends	_	E e in		Deer		Performance	
Condition Data:		Units		Excel			2.0		Fair		Poor		Deficiencies	
Comments: 8.0n Boti	Comments: 8.0mx100mm of light corrosion along bottom flange at east end of girder. One area of white deposits on the bottom flange. Both ends have some build-up of debris. Recommended Work: Rehab: X Replace: Maintenance Needs: Urgent: 1-5 Years: X 6-10 Years: None: Urgent: 1 Year: 2 Year: Clean debris from girder ends, recoat the girder ends. Item in the girder ends. Item in the girder ends.													
Recommended Work: Rehab: X Replace: Maintenance Needs: Urgent: 1-5 Years: X 6-10 Years: None: Urgent: 1 Year: 2 Year:														
Urgent: 1-5 Years: X 6-10 Years: None: Urgent: 1 Year: 2 Year: Clean debris from girder ends, recoat the girder ends. Urgent: 1 Year: 2 Year:														
Clean debris fror	n girder end	s, recoat the g	jirder en	ds.										
Element Photo:	:								1					
	Photo:													
Description of I	Photo:	Center Girde	er West	End										



Description of Photo: Center Girder

Element Data:														
Element Group:		Beams/Main	Longitu	dinal Elements		Length:		55.9	9					
Element Name:		Inside boxes	;			Width:		2.2						
Location:		South Girder				Height:		2.8						
Material:		Steel				Count:		1						
Element Type:		Trapezoidal	Box			Total Quant	ity:	436	.0					
Environment:		Benign				Inspected			Yes X No	o limited				
Protection System	1:	Weathering S	Steel wit	h Epoxymastic Co	oatir	ng at Ends		E e la	Deast	Performance				
Condition Data:		Units		Excellent		G000			P001"	Deficiencies				
Comments: Ligh bott corr 20m corr	Comments: Light to medium corrosion along bottom, 15.0mx200mm at west and 6.0mx100mm at east end of girder. The coating along the bottom flange and stiffeners has failed exhibiting Category 2 to 4 surface rust at west end. One section of girder has light corrosion (4.0x2.2m) on bottom. Steel stiffeners have areas of localized severe corrosion with section loss at ends of girder. 20m from west end 4.0m of efflorescence at top flange and deck interface. Isolated areas of efflorescence deposits with corrosion on webs and top flange. Both ends have significant build-up of debris. Recommended Work: Rehab: X Replace: Maintenance Needs: Urgent: 1-5 Years: X 6-10 Years: None: X Urgent: 1 Year: 2 Year: Clean debris from girder ends, recoat the girder ends. If the girder ends. If the girder ends. If the girder ends.													
Recommended Work: Rehab: X Replace: Maintenance Needs: Urgent: 1-5 Years: X 6-10 Years: None: X Urgent: 1 Year: 2 Year:														
Urgent:	1-	5 Years: X	6-1	0 Years:		None: X		Urgent:	1 Year:	2 Year:				
Clean debris fror	n girder end	s, recoat the ç	girder en	ds.										
Element Photo:	:													
Description of I	Photo:	Girder West	End											



Description of Photo: South Girder

Seguin Street Bridge



Element Data:																	
Element Group:		Beams/Main	Longitu	dinal E	leme	nts	Le	ngth:			6.8						
Element Name:		Diaphragms	(steel, w	ood, e	tc.)		W	idth:									
Location:		End					He	eight:			2.4						
Material:		Steel					C	ount:			4						
Element Type:							To	tal Quant	tity:		4						
Environment:		Benign					Ins	pected				Yes		No	lii	nited	Χ
Protection System	:	Weathering	Steel and	l Paint					_			_			P	erforma	nce
Condition Data:		Units		E>	cellen	nt	G	bod		Fair			Poor*		D	eficienc	ies
		each			3			1							<u></u>		
Comments: Grat	titi was pres	sent at the west	st end, b bhraom h	ut no (pottom	leterio flanc	oratio ne has	n of the areas o	steel wa f light co	as no orros	oted. The	e coa	ting a	ppear	s to st	ill be i	n good	
CON		iwest end diap		i ligiti co	1103												
			_														
Recommended W	ork:			Mainter	nance	Need	ds:										
Urgent:	1-	s:]	Ν	lone: X]	Urgent:			1 Year	:	2	Year:				
Element Photo:																	
		A A								1			the second secon				
1 A				1:n	nl	6					1		32.				
	"T TWO		G Y	ACE -	50	HIG	et s	7					5	R	3		
	NE AL NE				CT NOW		C A					k	A	A.			
	2. A.L			7						43			ATT.	AL IT	1.		
Description of I	Photo:	End Diaphra	igms														

Element Data: Element Group: Coating Length: 2																	
Element Group:		Coating					Ler	ngth:			2						
Element Name:		Structural St	eel				Wie	dth:			2.2						
Location:		End of Girde	rs				He	ight:			2.8						
Material:							Co	unt:			6						
Element Type:							Tot	al Quant	ity:		93.6	i					
Environment:		Moderate					Insp	ected				Yes		No	lir	nited	Χ
Protection System	:	Lipito		Evo	allant		<u> </u>	od		Foir			Door*	_	Pe	rforma	nce
Condition Data:		sam		EXC	ellent		45			30.6			18.0		D	encienc	les
Comments: Interior coating at ends of north and south girder have failed along the bottom flange and stiffener plates exhibiting Category 3 and 4 rusting. Category 2 to 3 rusting around the drain holes in the bottom flange. Remaining coating exhibiting chalking and Category 2 rusting, typical. Recommended Work: Rehab: X Replace: Maintenance Needs: Urgent: 1-5 Years: X 6-10 Years: None: X Urgent: 1 Year: 2 Year: Clean debris from girder ends, recoat the girder ends. Item for the girder ends. Item for the girder ends. Item for the girder ends.																	
Recommended W	Recommended Work: Rehab: X Replace: N Urgent: 1-5 Years: X 6-10 Years: None: X U																
Urgent:	1-	one: X]	Urgent:		11	Year	:	2	Year:							
Clean debris fron	n girder end	s, recoat the g	girder er	ıds.													
Element Photo:																	
Description of F	Photo:	Coating															

Element Data:																	
Element Group:		Abutments				Le	ngth:										
Element Name:		Abutment W	alls			W	dth:			19.5							
Location:						He	eight:			5.7							
Material:		Concrete				Co	ount:			2							
Element Type:		Conventiona	I Closed			Тс	tal Quant	ity:		223.5	j	s No Iimited X Performance Poor* Deficiencies graffiti present. 5.7m long					
Environment:		Benign				Insp	pected			Υ	/es		No	li	mited	Х	
Protection System	:													Р	erforman	се	
Condition Data:		Units		Excell	ent	G	bod		Fair		F	Poor*		۵)eficienci	es	
		sq.m				22	2.0		1.5								
med	lium vertical	Nore: Maintenance Needs: 1-5 Years: 6-10 Years: None: X Urgent: 1 Year: 2 Year:															
							<u></u>	1	Widiriton		10040						
Urgent:	1-	-5 Years:	6-1	0 Years:		N	one: X		Urgent:		1	Year:			2 Year:		
	Dhoto:	Abutment W	P P P P P		A BAN	tion with the second seco	Res and a second	「しんとし」	A. 2.2.2 Max Pa								
Description of I	Photo:	Abutment W	all														



Description of Photo: Abutment Wall

Element Data:													
Element Group:		Abutments				Le	ngth:						
Element Name:		Ballast Walls				W	idth:		19.	5			
Location:						He	eight:		3.2				
Material:		Concrete				Co	ount:		2				
Element Type:						Тс	tal Quant	ity:	126	6.0			
Environment:		Moderate				Insi	pected			Yes		No	limited X
Protection System	<u>י</u>												Performance
		Units		Exce	llent	G	boc	Fair			Poor*		Deficiencies
Condition Data:		sa.m				12	5.2	0.8					
Commonto: Limi	ited inspecti	on portions h	idden h	l v the diar	hranns	lights	caling ty	vnical 3.0n	n med	lium cra	ack at s	outh	vest area
Recommended Work: Rehab: Replace: Maintenance Needs: Urgent: 1-5 Years: 6-10 Years: None: X Urgent: 1 Year: 2 Year:													
Recommended Work: Rehab: Replace: Maintenance Needs: Urgent: 1-5 Years: 6-10 Years: None: X Urgent: 1 Year: 2 Year:													
Urgent:	1-	5 Years:	6-1	0 Years:		Ν	one: X	Urgen	t:] ^	1 Year:		2 Year:
Element Photo:	:												
Description of H	Photo:	Ballast Wall											
Description of I													

Element Data:	:													
Element Group:		Abutments				Length:		8.5						
Element Name:		Wingwalls				Width:								
Location:		All Quadrants	6			Height:		2.1						
Material:		Concrete				Count:		4						
Element Type:		Cast-in-Place				Total Quant	tity:	71.4	1					
Environment:		Benign				Inspected			Yes X	No[limited			
Protection System	ו:										Performance			
Condition Data:		Units		Excellent	t	Good	Fair		Poor*		Deficiencies			
	t cooling tu	sq.m		ad defecto		71.4								
Recommended W Urgent:	/ork:	5 Years:	Rehab: Replace: Years: 6-10 Years: None: X Urgent: 1 Year: 2 Year:											
Element Photo														
Description of	Photo:	Wingwall												

Element Data:														
Element Group:		Abutments		Length:		0.5								
Element Name:		Bearings		Width:		0.6								
Location:		Bearings Seats		Height:		0.1								
Material:		Elastomeric		Count:		6								
Element Type:				Total Quanti	ity:	6								
Environment:		Benign		Inspected		Yes	No	limited X						
Protection System	1:		Eventlant	Orad	Est:	Dee	*	Performance						
Condition Data:		each	Excellent	G000	Fair	P00	r	Deficiencies						
Comments: Eas	t end bearing	pads were not acces	sible and were n	ot inspected. Bea	rings on wes	st end are in go	ood cor	l ndition.						
Recommended Work: Rehab: Replace: Maintenance Needs: Urgent: 1-5 Years: 6-10 Years: None: Vrgent: 1 Year: 2 Year:														
Recommended W	ork:	Reh	ab: Repl	ace:	Mainten	ance Needs:								
Urgent:	1-	5 Years: 6-1	0 Years:	None: X	Urgent:	1 Ye	ar:	2 Year:						
Element Photo:	:													
Description of I	Photo:	Bearings												

Element Data:	Element Data:													
Element Group:		Retaining Wa	alls			Le	ngth:		4	40.2				
Element Name:		Walls				Wi	dth:							
Location:		NW and SW	Quadrar	its		He	eight:		4	4.0				
Material:		Concrete				Co	ount:		1	1				
Element Type:		Cast-in-Place	e			То	tal Quant	ity:	1	160.8				
Environment:		Benign				Insp	pected			Yes	Χ	No	limited	
Protection System	1:	Linita		Бура	llant		ad		Foir		Deer*	_	Performance	е
Condition Data:		eam		EXCE	enent	15			1 0		P001		Deliciencies	5
Comments: Light scaling, typical. Northwest side has cracks at 7th and 11th railing post and one 300x500mm light spall. Southwest side has medium cracks at 1st, 2nd and 7th railing post. Recommended Work: Rehab: Replace: Maintenance Needs: Urgent: 1-5 Years: 6-10 Years: None: X Urgent: 1 Year: 2 Year:												ide		
Recommended W	ork:		Reh		Maintena	ince Nee	eds:							
Urgent:	1-	5 Years:	0 Years:		N	one: X		Urgent:		1 Year:	:	2 Year:		
Element Photo:	:													
Description of l	Photo:	Retaining W	all											
Description of I	Photo:	Retaining W	all											



Description of Photo:

Seguin Street Bridge

Element Data:						
Element Group:	Retaining Walls		Length:		50.0	
Element Name:	Railing System on	Walls	Width:			
Location:	Under Bridge		Height:			
Material:	Steel	-	Count:		1	
Element Type:	Pedestrian Handrai		Total Quantity	r:	50.0	
Environment:	Benign		Inspected		Yes X No	limited
Protection System:	Hot-Dip Galvanized					Performance
Condition Data:	Units	Excellent	Good	Fair	Poor*	Deficiencies
Comments: Pedestrian han narrow crack in	m drail along path unde the concrete base o	r the west end of the	50.0 e bridge. Localize	d light corre	bsion and abrasion th	roughout. 0.5 mm
Recommended Work:	Re	ehab: Replac	ce:	Maintena	ance Needs:	
Urgent: 1	-5 Years: 6-	10 Years:	None: X	Urgent:	1 Year:	2 Year:
Element Photo:						
Description of Photo:	Retaining Wall Rai	ling				



Description of Photo:

Retaining Wall Railing

Element Data:							
Element Group:		Embankments & Str	eams	Length:			
Element Name:		Streams and Waterw	ays	Width:			
Location:				Height:			
Material:				Count:			
Element Type:		Waterway		Total Quant	ity:	1	
Environment:		Benign		Inspected		Yes No	limited
Protection System	1:		_				Performance
Condition Data:		Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data.		all	X				
Comments: No o Recommended W Urgent:	observed de ork:	Fects.	nab: Repl 0 Years:	ace: None: X	Mainten Urgent:	ance Needs:	2 Year:
Element Photos							
Description of I	Photo:	Waterway					

Element Data:							
Element Group:		Embankments & Stre	ams	Length:			
Element Name:		Embankments		Width:			
Location:		All Quadrants		Height:			
Material:		Trees, Vegetation		Count:		4	
Element Type:				Total Quant	tity:	4	
Environment:		Benign		Inspected		Yes X No	b limited
Protection System:		_					Performance
		Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data:		each	4				
Comments: No of Recommended Wor Urgent:	rk:	fects. Reh 5 Years: 6-1	ab: Repla 0 Years:	ace: None: X	Mainter	nance Needs:	2 Year:
Element Photo:							- 1.
Description of PI	hoto:	Embankments					
Description of Pl							

Element Data:															
Element Group:		Embankmen	ts & Stre	ams			Lei	ngth:							
Element Name:		Slope Protec	tion				Wi	dth:							
Location:		- ·					He	ight:							
Material:		Rocks and G	abion B	asket			Co	unt:			2				
Element Type:							To	tal Quanti	ity:		2				
Environment:							Insp	ected				Yes		No	limited X
Protection System												L			Performance
		Units		Ex	cellent		Go	od		Fair			Poor*		Deficiencies
Condition Data:		each			1			1							
Comments: No o ben	observed de eath walkwa	fects for rock y along the w	protecti aterline.	on in fr	ont of	east	abutme	nt. West	side	e has < 2	20% 10	055 0	f mate	rial alo	ong gabion baskets
Recommended W	lork:		Poh	ah:		Donla				Mainter	nance		de ·		
			Nell		<u> </u>			 	1	manner		1	us.		
Urgent:	1-	5 Years:	6-1	0 Years	:		N	one: X		Urgent:			1 Yea	:	2 Year:
Element Photo	:														
Description of	Photo:	Rock Protec	tion												

Element Data	:													
Element Group:		Accessories					Length:							
Element Name:		Utilities					Width:							
Location:							Height:							
Material:							Count:			6				
Element Type:		Various					Total Quanti	ity:		6				
Environment:							Inspected				Yes		No	limited X
Protection System	n:						•						Ť	Performance
Condition Data:		Units		Excell	ent		Good		Fair		F	Poor*		Deficiencies
Condition Data.		each					6							
Comments: Lim	ited inspecti	on due to acc	ess. The	ere is gas l	ine sup	oporte	ed along the	nor	th face of	f the	bridge	, insu	lated	pipe (likely a
wat	ermain) unde	er the north in	terior so	offit, electri	cal and	d bell	also appear	to t	pe suppo	rted	under	the n	orth ir	nterior soffit. There
are	some punctu	ures in the wa	termain	insulation	protec	tive c	covering. Ele	ectri	cal lines	are a	also su	ppor	ted alo	ong both ballast
wal	ls. The drawi	ngs indicate t	hat ther	e could als	o be h	ydro	ducts within	the	sidewalk	ks. El	lectrica	al box	at no	orthwest quadrant
has	a damaged l	latch and can	be oper	ied.										
Recommended W	/ork		Reh	ah'	Rent	ace · [Mainten	ance	Needs		18 - (Other Maintenance
		<u></u>						1				·		
Urgent:	<u> </u>	o rears:	6-1	U Years:			None: X		Urgent:		1 - احمد ط	rear		
									Internace	idiCl	n and e ockod	Insur	e elec	uncai box cañ de
											JUNEU.			
Flement Photo														
Liement i noto	•													
STATISTICS STATISTICS	I TOTAL		5232			QUART		-	52885S	8852	222259	22255	5522223	
		and the second second		- 1										
REVINE AND				- Change - Change		2		1						
and share					- 1	X.	- A							
	and a state of the					0	C.	4	17	388		328		
		The second s					Contraction of the							
												and a		and the second s
						7							- Alt	
										_		100		
				1 Martin	1					No.			and the	
<u>(.)</u>										S. M.				
														100
			7							-			R	
		1		1/				/			-			
Louis and Constant			- Per	<u>2h//</u>	1	1								
			at the start				Contractory N		-	is it.				
	· ·			/			////			A HILL				
					14		1.1							and the second
State of the Astron				- 11	/	A CONTRACTOR					a.des		TO AL	
and the paint	1100		3 10	11	D			1						
								111					18 in	
ferre A a						-	1		1 11	and a state	I - Witcow	No.	2 miles	
ME						1		2.						A REAL PROPERTY AND A REAL
Participation Providence	74. T	-	1	- PARTY	AND IN THE REAL	and a	and the second	in the second		and and a second			1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
Jan Ball		The second		1				i poli	All March Har -		an et al		ALL AND	
	The second se				8638 00 822 7 7 6 ()	A GHER A CA		28. 1 22"						
Description of	Photo:	Utilities												



Description of Photo: Utilities

Element Data:	:								
Element Group:		Accessories		Length:					
Element Name:		Other		Width:					
Location:				Height:					
Material:				Count:		3			
Element Type:		Light Poles		Total Quant	ity:	3			
Environment:		Moderate		Inspected			Yes X	No	limited
Protection System	וי								Performance
The color by steri	·.	I Inits	Excellent	Good	Fair		Poor*		Deficiencies
Condition Data:		onnto	2	0000	- T Chi		1 001		Denoionoioo
N	l <u> </u>		3						
Comments: NO			shahi 🗖 Daal		Mainta		Noodo:		
Recommended w		RI C				nance		<u> </u>	
Urgent:	<u> </u>	-5 Years: 6	10 Years:	None: X	Urgent:		1 Year:		2 Year:
Element Photo	:								
Description of	Photo:	Light Post							

Element Data:													
Element Group:		Approaches					Length:			6.0			
Element Name:		Wearing Sur	face				Width:			15.0			
Location:		East and We	st				Height:			0.1			
Material:		Asphalt					Count:			2			
Element Type:							Total Qu	antity:		180.0			
Environment:		Severe					Inspected			Yes	X	10	limited
Protection System	1:							_					Performance
Condition Data:		Units		Exc	ellent		Good		Fair		Poor*		Deficiencies
	4 III	sq.m					175.1		4.9		- f		
Comments: Ligr Med	lium loss of	bond (300mm	x 300m	mealun m).	1 wneei	rutting	0.0m x ס	UU X or	nm. Soutr	ieast /m	or mealu	m trar	isverse cracks.
Recommended W	'ork:		Reh	iab:	Re	place:			Maintena	ance Nee	ds:		
Urgent:	1-	-5 Years:	6-1	0 Years:			None:	X	Urgent:		1 Year:		2 Year:
Element Photo:	:												
Description of I	Photo:	West Approa	ach										



Element Data:												
Element Group:		Approaches				Length:		6	6.0			
Element Name:		Approach SI	ab			Width:		1	5.0			
Location:		East and We	st end			Height:		0).25			
Material:		Concrete				Count:		2	2			
Element Type:						Total Quanti	ity:	1	180.0			
Environment:		Moderate				Inspected			Ye	s	No[limited X
Protection System	1:			1			_					Performance
Condition Data:		Units		Excellent		Good		Fair		Poor*		Deficiencies
		sq.m	tion hoo			180.0						
Comments. Add												
Recommended W	ork:		Reh	nab: Re	eplace:			Maintena	nce Ne	eds:		
Urgent:	1-	5 Years:	6-1	0 Years:		None: X		Urgent:		1 Yea	r:	2 Year:
Element Photo:	1											
Description of I	Photo:	Approach Sl	ab									

Element Data:	:												
Element Group:		Approaches				Le	ngth:			14.6 (N	IE) , 11.0	(SW)	
Element Name:		Barrier				Wi	dth:				-		
Location:		SW and NE C	Quadran	ts		He	ight:						
Material:		Steel Beam	Guiderai	l		Co	unt:			2			
Element Type:		Beam				То	tal Quant	ity:		25.6			
Environment:		Moderate				Insp	ected			Ye	s X	No	limited
Protection System	1:	Galvanized		_									Performance
Condition Data:		Units		Exce	llent	Go	bod		Fair		Poor*		8 - Pedestrian / vehicular
		m		10	.5	14	1.6				0.5		hazard
Comments: Ligh	nt coating ch	alking typical	. Northe	ast end i	s flared v	with a sta	andard e	nd to	erminal h	idden l	behind flo	ower t	box with retaining
wall	. 3 posts hav	ve top rot. Co	nnectio	n to the n	orth eas	t barrier	s are sub	stai	ndard. So	uthwe	st rail has	s beer	replaced but has a
SUD	standard col	nnection at br	idge.										
Recommended W	/ork·		Roh	ah X	Ren	aca.	1		Mainten	ance N	eeds.		
			I CI				l 	1					, <u> </u>
Urgent:	1-	-5 Years: X	6-1	0 Years:		N	one:		Urgent:		1 Yea	:	2 Year:
Replace substan	dard connec	ctions approa	ch barrie	er to brid	je conne	ections							
Element Photo:													
				~		The second second second				the second second		A. M. T. M. A.	
		PARS -	A Part		ALS -	Clark .	TRA			Ma	140		
	M.S.		1 A Start	Sin Si	No. 1		the the law	Not 1	and the second			A AS	1.
						Station of		and and		in.	CA IN	VA.	L'E
1/			10 5 7 10 K	S-4L	1	Cap -	Hellering	1		3.5 × 20		A.	1
-			1 Ales	A A	A TATA	1	1	2			The second	100	A.S.
		- Contractor	E F					1					25
		0					- 42	-			MAN AN	J.	A.
					1000	E C E A B	2. 50		1 Alto	3. A	-1-1		1
and the second			. D		~ 1	A PLAN		7	1 mil	3-1-1	ANY.	1-1	
		0		· WHERE THE	the star	C Printing of the second				and the second	0	16	
									1.0	and the second	1 the	22	5-4
A SA			- MP					-		12			192
3	1				C.	and a state						3	P.
	1. 20	- Frank	s - p		MAN.		- Allen			1.5			
			the state										
								Nº C					
and the second	and the		No.						Dark -	M.			
· 20 %											1 De		and the second se
The second	1		1 million	CONTRACT		A Participant		1	CALLY	100	All A	MAS	
	5. 1. 1.	Carl Carl	and in				C. S.		No and a state of the state of		1 ANK		COM N
dela				Vinia	Cot V	NI -			and the second			11	
a second and a sec	1	and the second				Max 2-	-			- Selle			
					A TRADITION	- 1 5							
					25		Visit!	Sec. 1			W. C.		A.A.
				1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	·	A KAN		6		Call!			
Description of	Photo:	Southwest E	Parrier										
Description of I		Southwest	anel										



Element Data:						
Element Group:	Approaches		Length:		6.0	
Element Name:	Sidewalk/Curb		Width:		1.8	
Location:	All Quadrants		Height:			
Material:	Concrete		Count:		4	
Element Type:			Total Quanti	ty:	43.2	
Environment:	Severe		Inspected		Yes X No	limited
Protection System:						Performance
Canditian Data:	Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data:	sq.m		38.9	4.3		
Comments: Light scaling, ty cracks and 2 - 4 cracks and 2.0x	pical. 4 medium 200x 00 x 400mm spalls on 50mm medium spall	200x 25mm spalls o southeast approac on northwest appro	on northeast app h. 7.5 of mediur ach. 300mm of	proach. 200x n cracks on narrow crac	200x25mm medium s southwest approach. king at the edge of wi	pall, 4.5m of medium 3.0m of medium ngwalls.
Recommended Work:	Rel	nab: Replac	ce:	Mainten	ance Needs:	
Urgent: 1	-5 Years: 6-1	0 Years:	None: X	Urgent:	1 Year:	2 Year:
Element Photo:						
Description of Photo:	Approach Sidewalk					



Description of Photo:

Approach Sidewalk

Element Photo:



Description of Photo: Approach Sidewalk

Seguin Street Bridge

Repair and Rehabilit	ation Required:		Pric	ority		Estimated Structural	
Element ¹	Repair and Rehabilitation Required ²	6 to 10 Years	1 to 5 Years	Within 1 Year	Urgent	Cost	
Structure	Demolition						
Structure	Replacement						
OR							
Deck	Rehab. =						
Sidewalk/Curb	Rehab. = Concrete Repairs		X			\$11,000.00	
Barrier	Rehab. =						
Joints	Rehab. =						
Beams	Rehab. =		X			\$60,000.00	
Abutment	Rehab. =						
Pier	Rehab. =						
Other							
Estimated Rehabilitate	ed or Replacement Structure Dimensions ³					* 74 000 00	
I otal Deck Length	n (m) [Overall Str. Width (m)]			I otal Str	uctural Cost	\$ <i>1</i> ,000.00	

1 - Indicate specific costs for structure replacement OR for rehabilitation under the given headings.

 $\ensuremath{\mathbf{2}}$ - Give a very brief description of the rehabilitation work required.

3 - Estimated structure dimensions after completion of the proposed work - if it is expected to change.

Associated Work	Comments	Estimated Associated
		VVork Cost
Approaches	Upgrade Approach Barrier to Bridge Connections	\$20,000.00
Detours		
Traffic Control	Barriers, flagging, etc.	\$20,000.00
Utilities		
Other	Engineering and contingency	\$80,000.00
	Mobilization/Demobilization, General, Insurance	\$50,000.00
	Enviromental and Access	\$30,000.00
	Total Associated Work Cost	\$200,000.00
	Total Construction Cost	\$271,000.00

Justification:

Interior girder ends recommended to be cleaned and re-coated to mitigate continued corrosion. The approach guide rail connections to the bridge should be replaced with standard connections. The sidewalk concrete should be repaired to prevent tripping hazard to pedestrians and to maintain its safe use.

				MTO Site N	umber:		
Inventory Data:							
Structure Name	Waubuno Street B	ridge					
Main Highway #	Waubuno Street	On X or Under Structure	Service on Structure	Navig. Water	Non-Navig. Water	ner	
Location Description	Waubuno Street at	Georgian Bay	Service under:	Navig. Water	Non-Navig. Water	ner	
Owner/Custodian	Town of Parry Sour	ıd					
MTO Region	Northeastern		Latitude	45° 20' 34"N Lo	ngitude 80° 02'	28"W	
Regional Engineer			Heritage Designation:	X Not Cons. Co Desig. Desig./Not L	ns./Not App. Lis .ist Desig. & Lis	t/Not Desig. t	
MTO Area	52 - Huntsville		Hwy Class:	Freeway Arterial	ay Arterial Collector Lo		
Old County	44 - Parry Sound		Posted Speed	N/A No	A No. of Lanes Pathwa		
Township	452 - McDougall		AADT	N/A % Truck Un			
Structure Type 1	Timber Stringers						
Structure Material 1	Timber		Traffic Directional Bou	ind N-S			
Structure Type 2	Timber Deck						
Structure Material 2	Timber		Inspection Frequency	2	(years)	
Total Deck Length	12.9	(m)	Inspection Year	2022			
Overall Str. Width	3.6	(m)	Inspection Duration	2	(hrs)		
Culvert Length		(m)					
Total Deck Area	46.1	(sq.m)					
Roadway Width	3.2	(m)	Min. Vertical Clearance	e 2.96	(m)		
Skew Angle	(Degree)		Detour Distance	N/A	N/A (km)		
No. of Spans	3		Fill on Structure	N/A	(m)		
Span Lengths	3.73, 4.18, 3.53				(m)		
For retaining wall:							
Total Wall Length		(m)	Max. Wall Height	N/A	(m)		
Total Wall Area		(sq.m)	Ave. Wall Height	N/A	(m)		
			Angle of Backfill	N/A	(Degre	es)	
Historical Data							
Year Built	1981		Year of superstruct. C	onstructed N/A]	
Last Reg. OSIM Inspe	ection 2020		Year of Last Minor Re	hab. N/A]	
Last Enh. OSIM Inspe	ction		Year of Last Major Re	hab 2009			
Work History: (Date/d	escription)		Current Load Limit	/ Investigation History: (Dat	/ e/description)	(tonnes)	
<u></u>	<u></u>				<u></u>		

								MTO Sit	e Number:				
Field Inspection Info	rmation:												
Date of Inspection:		June 2	9, 2022	Type of	n:	X Reg. OSIM		SIM	Enh. OSIM				
Inspected By		Alison Friebel											
Others in Party:		Brian Wood, P.Eng.											
Eng. Access Equipment:		Camera, Tape measure, Hammer											
Special Access Equipment		None											
Weather		Sun	un Temperature 24							24 °C			
Additional Investigations Required:						None	Estimated Cost						
Material Condition Survey						None Y	IN	Iormai	Urgent				
Naterial Condition Survey						× Y	-						
Non-destructive Delan	Non doctructive Delemination Survey of Apphalt Covered Deck									+			
Concrete Substructure		y UI ASP		50K.		× v							
Detailed Coating Conc	Concrete Substructure Condition Survey:									-			
Detailed Coating Cont	tigation:					A V				-			
Detaileu Timbel Invest	d Investigation					X	-			+			
Post-Tensioned Strand	u investigation					X	-						
Underwater Investigation						X							
Latigue Investigation										<u> </u>			
Seismic Investigation													
Structure Evaluation:										<u> </u>			
Monitoring							_			ـ			
Deformations, Settlements and Movements:													
Crack Widths:													
RSS Horizontal movements of face:						X							
RSS Vertical movements of overall structure:						Х							
RSS Local movements or deterioration of face elements:						Х							
RSS Horizontal movements within overall structure:													
RSS Vertical movements within overall structure						Х							
RSS Lateral earth pres	ssure at the ba	ack of fa	cing elements			Х							
Investigation Notes:						Total Cost					\$0.00		
Overall Structure Not	tes:												
Recommended Work on St		None Mi	nor Rehab	. X	Major Rehat).	Rep	blace					
Timing of Recommended Work													
Overall Comments:		The	bridge bas a n	umber of ti	mbor m	mbore with	rot u	vith reals	acomont of t	haca	members		
overall Comments: I ne bridge has a number of timber members with recommended. The key members consist of pier of the second sec							olum	ins and s	stringers.	11030	members		
Date of Next inspection: 2024													
Overall Bridge Co	Overall Bridge Condition												
% Poor in Deck	% Poor in B	eams	% Poor in Sub	structure	% F	oor in Barrier		Bridge Condition Inde		ex (BCI or BCIp)			
2% 5%			20%			0% B		BClp 94.48	lp BCI 48 54.96				
Overall Bridge Sufficiency													
Traffic	Econom	Economic Width				Alignment		Bridge Sufficiency Index (BSI)					
2	0		0			0		52.96		6			
Element Data:													
-------------------	-------------	-----------------	-------	----------	---------	------------	--------	-----------	---------	--------	------	-------	---------------
Element Group:		Decks				Length:			12.8				
Element Name:		Deck Top				Width:			3.6				
Location:						Height:			0.04				
Material:		Wood				Count:			1				
Element Type:		Wood Planks	6			Total Quar	ntity:	4	46.1				
Environment:		Benign				Inspected			Ye	es X	Ν	10	limited
Protection System				_			_						Performance
Condition Data:		Units		Exce	ellent	Good		Fair		Poo	or*		Deficiencies
	<u> </u>	sq.m				42.0		3.0		1.	1		
500 S	x 250mm and	d 4 - 300 x 250)mm).		, iy pi				10 1010			vere	
Recommended We	ork:		Reh	ab:	Rep	lace:		Maintena	ance N	leeds:		9 - '	Гimber Repair
Urgent:	1-	5 Years: X	6-1	0 Years:		None:		Urgent:		1 Ye	ear:	X	2 Year:
Replace rottent p	lanks							Fasten lo	oose p	olanks			
Element Photo:													
Description of F	Photo:	Deck Top											



Description of Photo:

Element Data:											
Element Group:	Sidewalk/Cu	rb			Length:			12.8			
Element Name:	Curbs				Width:			0.2			
Location:					Height:			0.2			
Material:	Wood				Count:			2			
Element Type:					Total Quantit	ty:		10.2			
Environment:	Benign				Inspected			Ye	s X	No	limited
Protection System:											Performance
	Units		Excellent		Good		Fair		Poor*		Deficiencies
Condition Data:	sq.m				6.7		1.5		2.0		
Recommended Wo	rk:	Rehab:	F	Replace			Maintena	ance Ne	eeds:		
Urgent:	1-5 Years: X	6-10 Y	'ears:		None:	1	Urgent:		1 Year:		2 Year:
Replace rotten tin	hbers	0-10 1			None.		orgent.		i teal.		
Element Photo:											
Description of P	hoto: Curb										



Element Data:	Element Data:											
Element Group:	Barriers				Length:		12	2.8				
Element Name:	Railing Syste	ems			Width:							
Location:	East and We	st			Height:		1.	3				
Flement Type:	Wood Rail >	83mm Thick			Total Quanti	tv:	2	5.6				
Environment:	Ronign				Increated	ty.		Voc	V	No	limited	
Environment.	. Denign				Inspected			165	X			
Protection System			Evention		Cood		Foir		Door*	_	Performance	
Condition Data:	UTIILS		zcelleni		0000 05.0		rall		FUUI	_	Denciencies	
O	m Aurosthering Auricel Lee				20.0							
Described	- 1.						4-3-4	11				
Recommended Wo	IV	laintenan	ce Nee	eds:								
Urgent: 1-5 Years: 6-10 Years: None:						U	rgent:		1 Year:		2 Year:	
Element Photo:												
Description of F	Photo: Railing											

Element Data:											
Element Group:	Barriers			Length:		0.14					
Element Name:	Posts		-	Width:		0.14					
Location:				Height:		1.0					
Material:	Wood			Count:		18					
Element Type:	6x6 Timber	Post		Total Quanti	ty:	18					
Environment:	Benign			Inspected		Ye	es X	No	limited		
Protection System:				a 1			— •	_	Performance		
Condition Data:	Units	Excelle	ent	Good	Fair		Poor*		Deficiencies		
	each			16	2						
Recommended W/	۰. ۱۰	Rehah.	Replace	<u> </u>	Mainten	ance Ne	eeds:				
					Wallter						
Urgent:	1-5 Years:	6-10 Years:		None: X	Urgent:		1 Year:		2 Year:		
Element Photo:											
Description of F	Photo: Railing Post										
Description of F	noto: Railing Pos	L									

Element Data:												
Element Group:	Beams/Main Longitud	linal Elements	Length:	3.0	6							
Element Name:	Crossties		Width:	0.2	20							
Location:	Under Deck		Height:	0.2	20							
Material:	Wood		Count:	42								
Element Type:	8x8 Timbers		Total Quanti	ty: 60	.0							
Environment:	Benign		Inspected		Yes No	limited X						
Protection System:	Creosote					Performance						
Condition Data:	Units	Excellent	Good	Fair	Poor*	Deficiencies						
Condition Data.	sq.m		43.5	15.0	1.5							
Recommended Wo	ecommended Work: Rehab: Replace: Maintenance Needs:											
Urgont	1.5 Vears: 6.1/		Nono:	Urgont:		2 Voor:						
Element Photo:			-15-1 100 7/1									
Description of P	hoto: Crossties											

Element Photo: **Description of Photo:** Crossties Element Photo: Description of Photo:

Element Data:												
Element Group:		Beams/Main	Longitud	linal Elem	ents	Length:			3.73, 4.	18, 3.53		
Element Name:		Stringers				Width:			0.25			
Location:						Height:			0.45			
Material:		Wood				Count:			18			
Element Type:		Rectangular	Solid			Total Quar	ntity:		288.3			
Environment:		Benign				Inspected			Yes	S X	No	limited
Protection System	:	Creosote										Performance
Condition Data:		Units		Excell	ent	Good		Fair		Poor*		Deficiencies
		sq.m				244.1		28.8		15.4		1 - Load carrying capacity
exte gird 1.0m abut	rior stringers er from west n of rot from a tment. Center	s, likely from v 2.0m of rot fro abutment. Sou r span at sout	vehicle ir om abuti uth span h pier 9t	npact. Nor nent, 6th s at pier 3rd h stringer	th span stringer d and 7t has 1.0	center stringe has 1.0m of rot h stringer has m of rot from p	r 2.0n from 1.0m	n of rot fro abutmen of rot fron id 8th strir	m abut t with s n pier, 7 nger has	ment with evere bulg 'th stringe s 1.0m of i	seve ging r has rot fr	ere bulging, 2nd and 8th stringer has s 1.0 of rot from om north pier.
Recommended we	UIK.		Relia		Керіс		_	Maintena		eus.		
Urgent:	1-	5 Years: X	6-10) Years:		None:		Urgent:		1 Year:		2 Year:
Replace 8 rotten	stringers											
Element Photo:												
Description of F	Photo:	Centre span	9th strin	ger								



Element Data:						
Element Group:	Abutments		Length:			
Element Name:	Abutment Walls/Sill		Width:	3.4	4	
Location:			Height:	0.	69	
Material:	Wood		Count:	2		
Element Type:	Timber Wall		Total Quanti	ity: 4.0	6	
Environment:	Benign		Inspected		Yes X No	limited
Protection System:						Performance
	Units	Excellent	Good	Fair	Poor*	Deficiencies
Condition Data:	sq.m		2.8	1.2	0.6	
Comments: Light has s	weathering, typical. Isolated seve evere check at 4th timber from w	ere checks and spl	its. North sill ha	s severe rot in 3	rd and 6th timbers	from west. South sill
Recommended Wor	rk: Reh	ab: X Repla	ce:	Maintenand	ce Needs:	
Urgent:	1-5 Years: X 6-1	0 Years:	None:	Urgent:	1 Year:	2 Year:
Replace poor timb	er sills					
Element Photo:	<image/>					
Description of P						



Element Data:										
Element Group:	Abutments			Le	ngth:					
Element Name:	Ballast Walls	;		W	idth:		3.4			
Location:				He	eight:		0.70			
Material:	Wood			Co	ount:		2			
Element Type:	Timber Woo	d		То	tal Quanti	ty:	4.7			
Environment:	Benign			Insp	pected		Y	/es	No	limited X
Protection System										Performance
Condition Data	Units	E	xcellent	G	bod	Fair		Poor*		Deficiencies
Condition Data.	sq.m					2.4		2.4		1 - Load carrying capacity
Description of the W			<u></u>		1	M-54				
Recommended wo		Renab:		place:		Mainte	nance	Needs:		
Urgent:	1-5 Years: X	6-10 Yea	rs:	N	lone:	Urgent	:	1 Yea	r:	2 Year:
Replace south ba	illast wall									
Element Photo:										
Description of F	Photo: South Ballas	st Wall, Rot								



Element Data:								
Element Group:	Piers			Length:		0.30		
Element Name:	Shafts/Colun	nns/Pile Bents		Width:		0.30		
Location:				Height:		2.52		
Material:	Wood			Count:		12		
Element Type:	Timber Colu	mns with Capping I	Beam	Total Quanti	ity:	36.3		
Environment:	Benign			Inspected		Ye	es X I	No limited
Protection System:	Creosote							Performance
Condition Data:	Units	Excelle	ent	Good	Fair		Poor*	Deficiencies
Condition Data.	sq.m			17.5	3.6		15.1	1 - Load carrying capacity
outer colur	piles, likely from vehicle nn and rot in top half of c	collisions. North p	ier has fu	Il height rot in	column 1, 2 a	and 5. S	South pier h	as full height rot in 4th
Recommended Wo	rk:	Rehab: X	Replace	:	Mainten	nance N	eeds:	
Urgent:	1-5 Years: X	Urgent:		1 Year:	2 Year:			
Replace 5 timber o	columns							
Element Photo:								
Description of P	hoto: North Pier, C	Column 1						





Description of Photo: South Pier

Element Data:						
Element Group:	Piers		Length:		4.35	
Element Name:	Caps		Width:		0.30	
Location:			Height:		0.30	
Material:	Wood		Count:		2	
Element Type:	Timber Cap		Total Qua	antity:	5.6	
Environment:	Benign		Inspected		Yes	No limited X
Protection System:	Creosote					Performance
Condition Data:	Units	Excelle	ent Good	Fair	Poor*	Deficiencies
Comments: Light	sq.m weathering light to med	ium checks tynical	4.0	1.6		
Recommended Wo	rk:	Rehah [,]	Renlace:	Mainten	ance Needs:	
	1 E Vooro	6 10 Veem	Nonoi	V Urgonti		
	I-5 Years:	6-10 Years:	None:		i Year:	2 Year.
Element Photo:						
Description of P	hoto: Pier Cap					

Element Data:							
Element Group:	Embankmen	ts & Streams	Len	gth:			
Element Name:	Embankmen	ts	Wid	th:			
Location:	All Quadrant	S	Hei	jht:			
Material:	Soil, Rocks a	and Shrubs	Cou	nt:	4		
Element Type:			Tota	I Quantit	ty: 4		
Environment:	Benign		Inspe	cted		Yes X	No
Protection System:							Performance
	Units	Excellen	it Goo	d	Fair	Poor*	Deficiencies
Condition Data:	each		3		1		
Light	erosion at all quadrants.						iaterial at euges of path.
Recommended vvo	rk:	Renab:	Replace:		Maintenan	ice Needs:	
Urgent:	1-5 Years:	6-10 Years:	No	ne: X	Urgent:	1 Year:	2 Year:
Element Photo:							
Description of P	hoto: Northwest E	mbankment					



Description of Photo: Northeast Embankment

Element Data:											
Element Group:		Embankmen	ts & Stre	ams		Length:					
Element Name:		Slope Protec	tion			Width:					
Location:						Height:					
Material:		Rock				Count:		2			
Element Type:		Rock Protect	ion			Total Quanti	ty:	2			
Environment:		Benign				Inspected		Yes	X	No	limited
Protection System:						•					Performance
		Units		Excellen	nt	Good	Fair		Poor*		Deficiencies
Condition Data:		each				1	1				
Recommended Wor	base of the	e slope.	Reha	ab:	Replace:		Mainten	ance Ne	eds:	appea	
Urgont	1	5 Voors:	6 1(Voare:	7	Nono: V	Urgont:		1 Voor		2 Voor
Element Photo:											
Description of P	hoto:	South slope	protectio	n							



Element Data:																
Element Group: Accessories							Length:									
Element Name:	ame: Signs						Width:									
Location:	Nor	th and South	of Bridg	ge			Height:									
Material:	ial: Steel Count:								3							
Element Type:	Element Type: Total Quant									/: 3						
Environment: Benign Inspected									Yes X No limited							
Protection System:														Performance		
Canditian Data:	U	nits		Excel	lent		Good		Fair		Po	oor*		Deficiencies		
Condition Data:	ondition Data: each 1					1		2								
Recommended Wo	Comments: Clearance sign is bent and worn at corners. Still in good condition. 2 no motorized vehicles signs bent and not easily visible.											Other Maintenance				
							<u> </u>									
Urgent:	1-5 Ye	ars:	6-10 Y	ears:			None: X]	Urgent:		1`	Year:		2 Year: X		
								1	Relocate visible.	no m	notorize	ed ve	hicle	s to be easily		
<text></text>																
Description of P	hoto: No	motorized ve	hicles s	sign	_				_	_		_	_			

Element Photo:



Element Data:																	
Element Group: Accessories							Length:										
Element Name:	Element Name: Utilities							Width:									
Location:	Location: North and South of Bridge								Height:								
Material:	Material: Count:									1							
Element Type: Cable Total Quantity:										1							
Environment: Benign Inspected									Yes No limited X								
Protection System:														Performance			
Condition Data:		Units		Excellent			Good		Fair		Poor*			Deficiencies			
		each				<u> </u>											
Decommonded We			Dah						Maintan		Need	da.					
Recommended wo	ork:		Ren		Кер	blace:	<u> </u>	7	Wainten	enance Needs:							
Urgent:	1-	5 Years:	6-10) Years:			None: X	J	Urgent:			1 Year		2 Year:			
Element Photo:																	
		The lift it.															
Description of P	hoto:	Utility															

Element Data:															
Element Group: Approaches Length								6.0							
Element Name:	Wearin	g Surface				Width:			3	3.6					
Location:	ation: North and South end of Bridge Height:														
Material:	Ial: Gravel Count:							L	2						
Liement Type: Total Quantity:								ty:	4	3.2	<u> </u>				
Environment: Benign Inspected										Yes	S X	No	limited		
Protection System:			-			<u> </u>			- ·		• •		Performance		
Condition Data:	Units	Exc	Excellent		Good			⊦aır		Poor*	_	Deficiencies			
O	sq.m	has much dafa			43.2										
Recommended Wo	rk.	Bal	nah:	- 1 _{Во}	onlace.			_	Maintena	nce Ne	ede.				
					place.						cus.				
Urgent:	1-5 Years:	6-	10 Years:			None	e: X		Urgent:		1 Year:		2 Year:		
<section-header></section-header>															
Description of Photo: Approach looking south															



Repair and Rehabilit	ation Required:		Pric	Estimated Structural				
Element ¹	Repair and Rehabilitation Required ²	6 to 10 Years	1 to 5 Years	Within 1 Year	Urgent	Cost		
Structure	Demolition							
Structure	Replacement							
OR								
Deck	Rehab. = Replace Rotten Planks		X			\$2,000.00		
Sidewalk/Curb	Rehab. = Replace Rotten Curbs		X			\$5,000.00		
Barrier	Rehab. =							
Joints	Rehab. =							
Beams	Rehab. = Replace Rotten Stringers		X			\$50,000.00		
Abutment	Rehab. = Replace Ballast Wall		X			\$12,000.00		
Pier	Rehab. = Replace Rotten Columns		X			\$11,000.00		
Other								
Estimated Rehabilitate								
Total Deck Lengt	n (m) Overall Str. Width (m)	Total Structural Cost \$80,000.00						

Indicate specific costs for structure replacement OR for rehabili on under the given headings. 2 - Give a very brief description of the rehabilitation work required.

3 - Estimated structure dimensions after completion of the proposed work - if it is expected to change.

Associated Work	Comments	Estimated Associated
Approaches		Work Cost
Detours		
Traffic Control		\$5,000.00
Utilities		
Other	Engineering and Contingency	\$15,000.00
	General, Mobilization/Demobilization, Access, General	\$40,000.00
	Total Associated Work Cost	\$60,000.00
	Total Construction Cost	\$140,000,00

Justification:

The deteriorated timber deck, curbs, ballast wall, stringers and columns should be replaced as the rot will continue to progress. Signs of bulging and deterioration are already evident for severe rot.