VENISON CREEK BRIDGE

Site Number 986001

COUNTY ROAD 60, CONCESSION 5 SOUTH, SOUTH WALSINGHAM

2.8 km W of County Highway 59

Venison Creek Bridge

Inventory Data:

Structure Name

Main Hwy/Road #	NORFOLK COUNT RD 60	Y X On		Road Navig. Water Other X Non-Navig. Water
Hwy/Road Name	COUNTY ROAD 60	, CONCESSION 5 SOUTH,	SOUTH WALSINGHAM	
Structure Location	2.8 km W of County	/ Highway 59		
Latitude	42d 39' 12" N		Longitude 80d 32' 55.5" W	
Owner(s)	Norfolk County		Heritage X Not Cons. Designation: Cons./not App	Desig./not List & List
MTO Region	30 South	western	Road Class: Freeway	Arterial Collector X Local
MTO District	31 Londo	on / Stratford	Posted Speed 80	No. of Lanes 2
Old County	20 Norfo	lk	AADT 131	% Trucks
Geographic Twp.	585 South	Walsingham	Inspection Route Sequence	
Structure Type	15 Rigid	Frame, Vertical Legs	Interchange Number	
Total Deck Length	6.7 (m)		Interchange Structure Number	
Overall Str. Width	19.5 (m)		Min. Vertical Clearance	3.1 (m)
Total Deck Area	130.7 (m ²)		Special Route	mergency X School Bicycle
Roadway Width	7 (m)		Detour Length Around Bridge	10 (km)
Skew Angle	(Degr	ees)	Direction of Structure	North / South
No. of Spans	1		Fill on Structure	0.5 (m)
Span Length	6.1			(m)
Historical Data:				
Year Built	1958		Year of Last Major Rehab.	
Last OSIM Inspect	ion July 2	2, 2014	Last Evaluation	
Last Enhanced OS	SIM Inspection		Current Load Limit	/ / (tonnes)
Enhanced Access (ladder, boat, lift, e			Load Limit By-Law #	
Last Underwater Ir	spection		By-Law Expiry Date	
Last Condition Sur	vey			
Rehab History:	(Date/description)			

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Field Inspection Information:										
Date of Inspection:	July 12, 2016	Type of Inspection:	X OSIM	Enhanced OSIM						
Inspector:	Matt Alderson, G. Douglas Vallee Ltd.									
Others in Party:	N/A	N/A								
Access Equipment Used:	Hammer, Binoculars, Measuring Tape, C	Hammer, Binoculars, Measuring Tape, Camera, etc.								
Weather:	Sunny									
Temperature:	31 [°] C									

۸da	litional Investigation Required:	Priority						
Auc	nuonai nivestigation Required.	None	Normal	Urgent				
Mat	erial Condition Survey							
Х	Detailed Deck Condition Survey:		X					
Х	Non-destructive Delamination Survey of Asphalt-Covered Deck:	Х						
Х	Concrete Substructure Condition Survey:	Х						
Х	Detailed Coating Condition Survey:	Х						
Х	Detailed Timber Investigation	Х						
Х	Post-Tensioned Strand Investigation	Х						
Unc	erwater Investigation:	Х						
Fati	gue Investigation:	Х						
Seis	smic Investigation:	Х						
Stru	cture Evaluation:	Х						
Mor	itoring							
Х	Monitoring of Deformations, Settlements and Movements:	X						
Х	Monitoring Crack Widths:	Х						
Inve	stigation Notes:		•	•				
DCS	S recommended to assess salt damage to top.							

Overall Structure Notes:							
Recommended Work on Structure:	None Maintenance	X Minor Rehab. Major Rehab.	Replace				
Timing of Recommended Work:	1 to 5 years	X 6 to 10 years					
Overall Comments:	South fascia and slope prote	ection / drainage improvements.					
Date of next Inspection:	July 12, 2018						

Suspected Performance Deficiencies

Load carrying capacity 01

- 02 Excessive deformations (deflections & rotations)
- 03 Continuing settlement
- 04 Continuing movements
- 05 Seized bearings

Maintenance Needs

- 01 Lift and swing bridge maintenance
- 02 Bridge cleaning
- 03 Bridge handrail maintenance
- Painting steel bridge structures 04 05
- Bridge deck joint repair 06 Bridge bearing maintenance

- 08 Jammed expansion joint
- 09 Pedestrian/vehicular hazard
- 10 Rough riding surface
- 07 Repair to structural steel Repair of bridge concrete
- 08 09 Repair of bridge timber
- 10 Bailey bridges - maintenance
- Animal/pest control 11
- Bridge surface repair 12

- Slippery surfaces 12
- Flooding/channel blockage 13
- 14 Undermining of foundation

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- 13 Erosion control at bridges
- 14 Concrete sealing
- 15 Rout and seal 16
- Bridge deck drainage Scaling (Loose concrete or ACR steel) 17
- 18 Other

- 07 Bearing not uniformly loaded/unstable
- 11 Deck drainage

- 15 Unstable embankments
- 16 Other

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Rehabilitation Required:		Element		Priority								
Rehab	Replace		Urgent	Within 1 yr	1-5 yrs	6-10 yrs	Construction Cost					
		Barrels										
		Inlet Components										
		Outlet Components										
		Wearing Surface										
Х		Embankments				Х						
		Foundation (below ground level)										
							\$0					
Total Cost												

Associated Work:	Estimated Construction Cost	
Additional Investigations		
Traffic Management		
Utilities		
Road Allowance		
Environmental Assessment		
Engineering		
Other		
Contingencies		
	Total Cost	\$0

Justification:		
Notes:	Construction Cost: Associated Work Cost:	\$0 \$0
	TOTAL Estimated Cost:	\$0

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Element D	Data
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Elomont Bata											
Element Group:	1200 Culv	verts					Le	ngth:			19.5
Element Name:	1203 Barrels						Width: 6.1				6.1
Location:	Inside						Height:				3
Material:							Count:				1
Element Type:	Frames - Rigid						То	tal Quantity:			356.9 sq.m
Environment:	Moderate						Lin	nited Inspect	ion:		
Protection System:	Unk	nown					Pe	rform. Defici	encies		
	Jnits Exc	. Good	Fa	ir	Po	or					
Data:	sq.m 0	356.85	0		()					
Comments: Walls, fascia, under	deck. Deck top	not visible.									
Recommended V	Vork: Reł	nab Repl	ace				Ma	aintenance N	eeds:		
Timing:	Urgent <	1yr 1 -	5 yr 🗌	6 - 10) vr	l	l r	Urgent	1 ye	ar	2 year
Tinning.		lyi l	5 yi	0-10	, yi			orgeni		201	
Element Group:	1200 Culv	verts						ngth:			
Element Name:		t Components						idth:			6.1
Location:		th End						eight:			3
Material:								ount:			1
Element Type:							Total Quantity:				18.3 sq.m
Environment:	Mod	lerate					Limited Inspection:				ere oqui
							Perform. Deficiencies				
Protection System:		nown . Good	Fa		Po	~*	Pe	erform. Defici	encies		
	Jnits Exc sq.m 0	17.8	га 0.{		P0		-				
Minor scaling on fas	cia.										
Recommended V	Vork: Ref	nab Repl	ace				Ma	aintenance N	eeds:		
Timing:	Urgent <	1yr 🗌 1 -	5 yr	6 - 10) yr			Urgent	1 ye	ear	2 year
Element Group:	1200 Culv	verts						nath:			
Element Name:		let Components					Length: Width:				6.1
Location:		th End	5								3.1
Material:		t-in-place Cond	roto				Height: Count:				1
Element Type:	. 043							tal Quantity:			18.9 sq.m
Environment:	Moc	lerate						nited Inspect	ion:		
Protection System:	Unk	nown					Perform. Deficiencies				
	Jnits Exc		Fa	ir	Po	or	-				
	sq.m 0	16.9	1		1						
Comments: Deterioration at SW corner including cracking and efflorescence. Cracks on South fascia. Recommended Work: Rehab Replace Maintenance Needs: Repair of Bridge Concrete											
				6 10) vr	1	[ar	X 2 year
Timing:	Urgent <	1yr 1 -	5 yr	6 - 10	југ			Urgent	1 ye	dl	∧ ∠ year

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Element Data

Element Data													
Element Group:	100 Decks						Length:				20		
Element Name:	101	Wearing	Surface					Width:					7
Location:		Top of D	eck					Height:					
Material:	2	Asphalt						С	ount:				1
Element Type:								Тс	otal Quantity				140 sq.m
Environment:		Severe						Li	mited Inspec	tion	:		
Protection System:		Deck Top)					Pe	erform. Defic	ienc	ies		
	Units	Exc.	Good	Fa	ir	Pc	or			1	Instable F	mb	ankments
Data:	sq.m	0	140	0		()			Ľ		11106	ankments
Comments: Roadway fill slopes stable, however are eroding from road drainage. Road repaved since 2014 inspection. Asphalt in good condition.													
Recommended \		Rehab	Rep				7	101	aintenance I			_	-
Timing:	Urgent	< 1yr	1 -	5 yr	6 - 1	0 yr			Urgent		1 year		2 year
r								_				_	
Element Group:	1400		nents & S	treams				_	ength:			_	
Element Name:	1402	Embankr							'idth:			_	
Location:		Venison						-	eight:			_	
Material:	-	Earth/Na	tive Mater	ial				-	ount:			+	1
Element Type:								1	otal Quantity			+	1.0 Each
Environment:								Limited Inspection:					
Protection System:		Unknowr						Pe	erform. Defic	ienc	ies		
	Units	Exc.	Good	Fa			or						
Data: Comments:	Each	0	0	1		()						
Improve drainage. (Recommended \ Timing:		Rehab	X Rep			0 yr X	_	-	aintenance f			Eı	rosion Control at Bridges
	eigent			<u> </u>	• ·	с <u>у</u> . <u>л</u>	1		o.go		. jeu		
Element Group:	1300	Foundati	ons					Le	ength:			Т	20
Element Name:	1301	Foundati	on (below	ground	level)			_	/idth:				
Location:			ast and W	-				He	eight:				
Material:	4	Cast-in-p	lace Cond	crete				С	ount:				2
Element Type:								Тс	otal Quantity				40 m
Environment:		Moderate	9					Li	mited Inspec	tion	:		
Protection System:		Unknowr	1					Pe	erform. Defic	ienc	ies		
	Units	Exc.	Good	Fa	ir	Po	or						
Data:	m	0	40	0		()						
Comments: Visible at Northwest corner.													
Recommended \		Rehab	Rep				-	Ma	aintenance I				_
Timing:	Urgent	< 1yr	1 -	5 yr	6 - 1	0 yr			Urgent		1 year		2 year



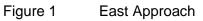




Figure 2 West Approach



Figure 3 North Profile, Inlet



Figure 4 Upstream



Figure 5 Downstream



Figure 6 Barrel, Looking North



Figure 7 Barrel, Looking South



Figure 8 Minor Deterioration on South Fascia



Figure 9 Scaling on Fascia



Figure 10 Staining on Culvert Walls



Figure 11 Damaged Handrail on South Culvert Top

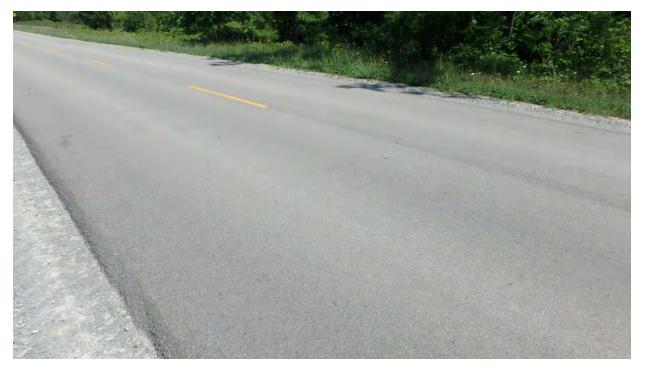


Figure 12 New Asphalt Wearing Surface