

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

INVENTORY DATA:			
Structure Name	<u>Andrewsville Bridge (B40)</u>		
Main Hwy/Road #	-	On <input type="checkbox"/> Under <input checked="" type="checkbox"/>	Crossing Type: Rail <input type="checkbox"/> Road <input type="checkbox"/> Ped. <input type="checkbox"/> Other <input type="checkbox"/>
Road Name	<u>Andrewsville Main Street</u>		
Structure Location	<u>Lot 2, Concession A - 1.0 km South of County Road 43</u>		
Latitude	<u>44° 57.069'</u>	Longitude:	<u>75° 49.148'</u>
Owner(s)	<u>County of Lanark</u>	Heritage Not Cons. <input checked="" type="checkbox"/> Cons./not App. <input type="checkbox"/> List/not Desig. <input type="checkbox"/>	Designation: Desig./not List <input type="checkbox"/> Desig. & List <input type="checkbox"/>
MTO Region	<u>Eastern</u>	Road Class:	Freeway <input type="checkbox"/> Arterial <input checked="" type="checkbox"/> Collector <input type="checkbox"/> Local <input type="checkbox"/>
MTO District	<u>Kingston</u>	Posted Speed	<u>20 km/hr</u> No. of Lanes <u>1</u>
Old County	<u>Lanark</u>	AADT	<u>-</u> % Trucks <u>-</u>
Geographic Twp.	<u>Montague</u>	Special Routes:	Transit <input type="checkbox"/> Truck <input type="checkbox"/> School <input type="checkbox"/> Bicycle <input type="checkbox"/>
Structure Type	<u>Steel Through Truss with Wooden Deck and Steel I-Girders with Wooden Deck</u>		Detour Length Around Bridge <u>10.0</u> (km)
Total Deck Length	<u>44.2</u> (m)	Fill on Structure	<u>-</u> (m)
Overall Str. Width	<u>5.5</u> (m)	Skew Angle	<u>150</u> (Degrees)
Total Deck Area	<u>243.1</u> (sq.m)	Direction of Structure	<u>N / S</u>
Roadway Width	<u>4.4</u> (m)	No. of Spans	<u>2</u> (m)
Span Lengths	<u>36.6 , 7.6</u> (m)		

HISTORICAL DATA:			
Year Built	<u>1915</u>	Last Biennial Inspection	<u>2012</u>
Current Load Limit	<u>5.0</u> (tonnes)	Last Bridge Master Inspection	<u>-</u>
Load Limit By-Law #	<u>-</u>	Last Evaluation	<u>-</u>
By-Law Expiry Date	<u>-</u>	Last Underwater Inspection	<u>-</u>
Min. Vertical Clearance	<u>2.4</u> (m)	Last Condition Survey	<u>-</u>
Rehab. History: (Date / Description)			

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

FIELD INSPECTION INFORMATION:	
Date of Inspection:	May 26, 2015
Inspector:	Sam Fawson
Others in Party:	Grant Young
Equipment Used:	Camera, tape and hand tools
Weather:	Sunny
Temperature:	+27°C

ADDITIONAL INVESTIGATIONS REQUIRED:	Priority			Estimated Cost
	None	Normal	Urgent	
Detailed Deck Condition Survey:	x			
Bridge Rehabilitation / Replacement Study:		x		\$6,000.00
DART Survey:	x			
Detailed Coating Condition Survey:	x			
Underwater Investigation:	x			
Fatigue Investigation:	x			
Seismic Investigation:	x			
Structure Evaluation:	x			
Load Posting - Estimated Load		Total Cost		\$6,000.00
Special Notes: <div style="color: red;">A rehabilitation/replacement study is recommended as noted above to determine the most feasible approach for the asset in the future.</div> Traffic barrier does not conform to current design requirements.				
Next Detailed Inspection:		2017		

Suspected Performance Deficiencies

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

Maintenance Needs

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

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Deck	Length:	44.2 m				
Element Name:	Wearing Surface	Width:	4.4 m				
Location:	Top of Deck	Height:	-				
Material:	Timber	Count:	-				
Element Type:	Wearing Surface	Total Quantity:	194.5 m ²				
Environment:	Severe	Not Inspected:	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
	Units	Exc.	Good	Fair	Poor		
	m ²		189.5		5	16	18
Comments: 2x10 running boards along wheel tracks with crushing, abrasions and slits. Deck top appears to be in good condition. Significant movement at north end under loading.							
None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Deck	Length:	44.2 m				
Element Name:	Soffit	Width:	4.9 m				
Location:	Underside of Deck	Height:	0.15 m				
Material:	Wood	Count:	-				
Element Type:	Timber Deck	Total Quantity:	216.6 m ²				
Environment:	Benign	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
	Units	Exc.	Good	Fair	Poor		
	m ²		216.6			0	0
Comments: Some minor wear and wet stains.							
None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Sidewalks / Curb	Length:	44.6 m				
Element Name:	Curbs	Width:	0.21 m				
Location:	Edges of Deck (East / West)	Height:	0.21 m				
Material:	Wood	Count:	2				
Element Type:	Curbs	Total Quantity:	37.5 m				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
	Units	Exc.	Good	Fair	Poor		
	m		37.5			-	-
Comments: Moderate weathering and minor splits.							
None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Barriers	Length:	44.6 m				
Element Name:	Railing System	Width:	-				
Location:	Edges of Deck (East / West)	Height:	-				
Material:	Steel	Count:	2				
Element Type:	Double Pipe	Total Quantity:	89.2 m				
Environment:	Severe	Not Inspected	<input type="checkbox"/>				
Protection System:	Coating					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m				89.2	08	18	
Comments: Moderate corrosion and severe coating deterioration throughout element. Several areas of vehicular damage. Traffic barrier does not conform to current design requirements							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Barriers	Length:	-				
Element Name:	Railing System - Posts	Width:	-				
Location:	Edges of Deck (East / West)	Height:	1.2 m				
Material:	Steel	Count:	70				
Element Type:	Bolted Members	Total Quantity:	70				
Environment:	Severe	Not Inspected	<input type="checkbox"/>				
Protection System:	Coating					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m				70	01	18	
Comments: Moderate corrosion. Traffic barrier does not conform to current design requirements.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Beams	Length:	5.0 m				
Element Name:	Floor Beams	Width:	0.2 m				
Location:	Underside of North Span	Height:	0.5 m				
Material:	Steel	Count:	7				
Element Type:	I-Type	Total Quantity:	56.0 m ²				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	Coating					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²		50.0	6.0		0	04	
Comments: Light to moderate corrosion at ends of beams. Limited inspection due to high water level.							
None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Beams / MLE's	Length:	33.6 m				
Element Name:	Stringers	Width:	0.2 m				
Location:	Underside of North Span	Height:	0.3 m				
Material:	Steel	Count:	5				
Element Type:	I-Type	Total Quantity:	201.6 m ²				
Environment:	Severe	Not Inspected	<input type="checkbox"/> 80% visible				
Protection System:	Coating					Performance Deficiencies	Maintenance Needs
	Units	Exc.	Good	Fair	Poor		
	m ²			201.6		0	04
Comments: Moderate corrosion and coating failure. Limited inspection due to high water level <div style="display: flex; justify-content: space-around;"> None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/> </div>							

Element Group:	Trusses	Length:	36.6 m				
Element Name:	Truss	Width:	0.33 m				
Location:	Edges of North Span (East / West)	Height:	4.0 m				
Material:	Steel	Count:	2				
Element Type:	Steel Through Truss	Total Quantity:	-				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	Grey Paint					Performance Deficiencies	Maintenance Needs
	Units	Exc.	Good	Fair	Poor		
	%		20%	80%		0	04
Comments: Light to moderate corrosion throughout truss. Deterioration worse where exposed to road salts. <div style="display: flex; justify-content: space-around;"> None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/> </div>							

Element Group:	Beams / MLE's	Length:	7.6 m				
Element Name:	Girders	Width:	0.15 m				
Location:	Underside of South Span	Height:	0.5 m				
Material:	Steel	Count:	1				
Element Type:	I-Type	Total Quantity:	110 m ²				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	Paint					Performance Deficiencies	Maintenance Needs
	Units	Exc.	Good	Fair	Poor		
	m ²			110.0		0	04
Comments: Light to moderate corrosion. <div style="display: flex; justify-content: space-around;"> None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/> </div>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Coatings	Length:	-				
Element Name:	Structural Steel	Width:	-				
Location:	Girders, Trusses, Floor Beams and Stringers	Height:	-				
Material:	Paint	Count:	-				
Element Type:	Coatings	Total Quantity:	-				
Environment:	Severe	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
%	%		25	75	0	04	
Comments: Moderate to severe deterioration of paint, including extensive flaking.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Abutments	Length:	-				
Element Name:	Abutment Walls	Width:	7.5 m				
Location:	Abutment (North / South)	Height:	2.2 m				
Material:	Cast-In-Place Concrete	Count:	2				
Element Type:	Conventional Closed	Total Quantity:	33.0 m ²				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²			18.0	15.0	0	08	
Comments: A few large spalls and stained cracks. Also light to sever scaling, disintegration and efflorescence staining with wide cracks on west wall.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Abutments	Length:	-				
Element Name:	Ballast Walls	Width:	7.0 m				
Location:	Abutment (North / South)	Height:	0.6 m				
Material:	Cast-In-Place Concrete	Count:	2				
Element Type:	Ballast Wall	Total Quantity:	8.4 m ²				
Environment:	Benign	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²			6.4	2	0	08	
Comments: Wide cracks and spalls, some staining.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Abutments	Length:	2.5 m				
Element Name:	Wingwalls	Width:	-				
Location:	Corners	Height:	2.5 m				
Material:	Cast-In-Place Concrete	Count:	3				
Element Type:	Wingwalls	Total Quantity:	16.5 m ²				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²	m ²		14.5	2.0	0	08	
Comments: Some wide cracks, spalling, light scaling, efflorescence stains.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Abutments	Length:	-				
Element Name:	Bearings	Width:	-				
Location:	Abutment (North)	Height:	-				
Material:	Brick or Steel	Count:	7				
Element Type:	Roller Bearings (Steel), Bricks	Total Quantity:	-				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
each		5		2	0	06	
Comments: Steel roller bearings supporting trusses are in poor condition. The plates maintaining the roller alignment are broken and bent, one roller is missing, and the entire assembly is severely corroded. Brick blocks are supporting steel stringers. Bearings not accessible at south abutment.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Piers	Length:	2.0 m				
Element Name:	Shaft	Width:	8.0 m				
Location:	Pier	Height:	2.2 m				
Material:	Cast-In-Place Concrete	Count:	1				
Element Type:	Shaft	Total Quantity:	44.0 m ²				
Environment:	Severe	Not Inspected:	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²			30	14.0	0	08	
Comments: Shaft is severely spalled at the top at either end and at bearing seats. Severe efflorescence was noted in spalled areas and wide horizontal cracks were noted on pier face. Severe scaling exists at and below high water level. Also severe stained random cracks, delimitation and exposed re-bar.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Piers	Length:	-				
Element Name:	Bearings	Width:	--				
Location:	Pier	Height:	--				
Material:	Wood / Steel	Count:	3				
Element Type:	Fixed Bearings (Steel), Wooden Members	Total Quantity:	3				
Environment:	Severe	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
Each			3		0	0	
Comments: Steel bearings supporting truss are severely corroded. Wooden members supporting steel stringers and girders have some minor rot. Vegetation growing on pier at bearings.							
None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Retaining Walls	Length:	200.0 m (total)				
Element Name:	Retaining Walls	Width:	-				
Location:	North	Height:	2.5 m				
Material:	Dry Masonry	Count:	2				
Element Type:	Dry Masonry Wall	Total Quantity:	1000.0 m ²				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²			900.0	100.0	0	18	
Comments: Some missing stones and debris. Light weathering of stones. East wall bulging slightly.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Retaining Wall	Length:	5.0 m				
Element Name:	Retaining Wall	Width:	0.4 m				
Location:	South	Height:	2.25 m				
Material:	Cast-In-Place Concrete	Count:	2				
Element Type:	Retaining Walls	Total Quantity:	22.5 m ²				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²			22.5		0	0	
Comments: Efflorescence, small spalls and map cracking. Several wide and medium cracks with severe efflorescence.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Foundations	Length:	-				
Element Name:	Foundations (below ground level)	Width:	-				
Location:	-	Height:	-				
Material:	-	Count:	-				
Element Type:	Unknown	Total Quantity:	-				
Environment:	Benign	Not Inspected:	<input checked="" type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
N/A					0	0	
Comments: No evidence of instability. Also large spalls and exposed corroded re-bar at south footings.							
None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Embankments and Streams	Length:	-				
Element Name:	Streams and Waterways	Width:	-				
Location:	East and West of Structure	Height:	-				
Material:	Cobbles and Boulders	Count:	-				
Element Type:	Rideau River	Total Quantity:	All				
Environment:	Benign	Not Inspected:	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
All		All			0	0	
Comments:							
None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:	Embankments and Streams	Length:	-				
Element Name:	Embankments	Width:	-				
Location:	All four quadrants	Height:	-				
Material:	-	Count:	4				
Element Type:	Embankments	Total Quantity:	4				
Environment:	Moderate	Not Inspected:	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
Each		3		1	0	13	
Comments: Severe erosion of SE embankment.							
None <input type="checkbox"/> 1 - 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

ELEMENT DATA							
Element Group:	Signs	Length:	-				
Element Name:	Signs	Width:	-				
Location:	Approaches and Corners	Height:	-				
Material:	Steel	Count:	8				
Element Type:	Signs	Total Quantity:	8				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	Hot Dip Galvanised and Coated					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
Each		8				0	0
Comments: 4 hazard markers at corners of structure is in good condition. 2 Load Limit signs and 2 narrow structure signs <div style="display: flex; justify-content: space-around;"> None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/> </div>							

Element Group:	Approaches	Length:	6.0 m				
Element Name:	Wearing Surface	Width:	5.5 m				
Location:	Approaches (North / South)	Height:	-				
Material:	Asphalt	Count:	2				
Element Type:	Wearing Surface	Total Quantity:	66.0 m ²				
Environment:	Moderate	Not Inspected	<input type="checkbox"/>				
Protection System:	None					Performance Deficiencies	Maintenance Needs
Units	Exc.	Good	Fair	Poor			
m ²		59.0	5.0	2		0	15
Comments: Moderate ravelling more severe at structure. A few transverse cracks, wide crack and depression at south approach. <div style="display: flex; justify-content: space-around;"> None <input checked="" type="checkbox"/> 1 - 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/> </div>							

MUNICIPAL STRUCTURE INSPECTION FORM

BRIDGES

Site Number: 015-0013

REPAIR AND REHABILITATION REQUIRED		Priority			Estimated Cost
Element	Repair and Rehabilitation Required	1 to 5 years	Within 1 year	Urgent	
Railing System	Replace Traffic Barrier and on approaches	x			\$100,000.00
Coating	Re-Coat Structural Steel	x			\$100,000.00
Abutments	Concrete Repair	x			\$40,000.00
Bearings	Replace Bearings	x			\$20,000.00
Pier - Shafts	Concrete Repairs	x			\$50,000.00
Retaining Walls	Masonry Repairs	x			\$50,000.00
Embankments	Repair SE quadrant	x			\$2,000.00
Total cost					\$362,000.00

ASSOCIATED WORK	Comments	Estimated Cost
Approaches		
Detours		\$50,000.00
Traffic Control		\$5,000.00
Utilities		
Right of Way		
Environmental Study		
Other		
Contingencies		\$40,000.00
Total Cost		\$95,000.00

JUSTIFICATION
<p>It is estimated that the bridge will need a rehabilitation in the next ten years to remain open to the public.</p>

Andrewsville Bridge



Approach view of the structure



Elevation view

The County of Lanark 2015 OSIM Bridge Inspections



View of timber curb and railing system



View of soffit and truss stringers and floor beams



View showing severe spalls and disintegration on abutment



View showing cracking with efflorescence and spalling on the abutment



View showing severe spalling of abutment and replaced bolted end plates



View of pier showing major spalling and efflorescence

The County of Lanark 2015 OSIM Bridge Inspections



View showing cross bracing and corrosion on girders



View showing mass spalling and corrosion stains



View of deck wearing surface with rot, splits, and checks