

**CONDITION ASSESSMENT & LOAD EVALUATION
9TH STREET BRIDGE OVER SYDENHAM RIVER
CITY OF OWEN SOUND**

APPENDIX "A"

OSIM REPORT

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Inventory Data:

Structure Name	<input type="text" value="9<sup>th</sup> Street Bridge"/>				
Main Hwy/Road #	<input "="" type="checkbox" value="9<sup>th</sup> St. W.</input></td> <td>On <input checked="/>	Under <input type="checkbox"/>	Crossing Type:	Navig. Water <input checked="" type="checkbox"/> Rail <input type="checkbox"/> Road <input checked="" type="checkbox"/>	
Road Name	<input type="text" value="9<sup>th</sup> Street West"/>				
Structure Location	<input type="text" value="Sydenham River Between 1<sup>st</sup> Ave West and 1<sup>st</sup> Ave East"/>				
Latitude	<input type="text" value="44 deg. 34.01 min"/>	Longitude	<input type="text" value="80 deg. 56.39 min"/>		
Owner(s)	<input type="text" value="The City of Owen Sound"/>	Heritage Designation:	Not Cons. <input type="checkbox"/> Cons./not App. <input type="checkbox"/> List/not Desig. <input type="checkbox"/> Desig./not List <input type="checkbox"/> Desig. & List <input type="checkbox"/>		
MTO Region *	<input type="text" value="30 (Southwestern)"/>	Road Class:	Freeway <input type="checkbox"/> Arterial <input type="checkbox"/> Collector <input checked="" type="checkbox"/> Local <input type="checkbox"/>		
MTO District *	<input type="text" value="33 (Owen Sound)"/>	Posted Speed	<input type="text" value="50 km/hr"/>	No. of Lanes	<input type="text" value="2"/>
Old County *	<input type="text" value="8 (Grey)"/>	AADT	<input type="text"/>	% Trucks	<input type="text"/>
Geographic Twp. *	<input type="text" value="City of Owen Sound"/>	Special Routes:	Transit <input checked="" type="checkbox"/> Truck <input checked="" type="checkbox"/> School <input checked="" type="checkbox"/> Bicycle <input type="checkbox"/>		
Structure Type *	<input type="text" value="7 T-Beam rigid arch"/>	Detour Length Around Bridge	<input type="text" value="1.0"/>	(km)	
Total Deck Length	<input type="text" value="31.3"/>	Fill on Structure	<input type="text" value="0"/>	(m)	
Overall Str. Width	<input type="text" value="13.7"/>	Skew Angle	<input type="text" value="10"/>	(Degrees)	
Total Deck Area	<input type="text" value="482.81"/>	Direction of Structure	<input type="text" value="East / West"/>		
Roadway Width	<input type="text" value="9.43"/>	No. of Spans	<input type="text" value="3"/>		
Span Lengths	<input type="text" value="4.7m, 21.9m, 4.7m"/>				

Historical Data:

Year Built	<input type="text" value="1947"/>	Last Evaluation	<input type="text"/>
Last Biennial Insp.	<input type="text" value="Oct. 12, 2006"/>	Current Load Limit	<input type="text" value="Closed to heavy trucks"/> (tonne)
Last BridgeMaster Insp.	<input type="text"/>	Load Limit By-Law #	<input type="text"/>
Last Condition Survey	<input type="text"/>	By-Law Expiry Date	<input type="text"/>
Last Underwater Insp.	<input type="text"/>		

Rehab. History: (Date/description)

- 1982- Rehab new deck and sidewalks**
- Repairs to deck soffit and beams**
- 1987- Replaced approach sidewalk**
- 1998-Concrete repairs to underside**

GAMSBY & MANNERLOW LTD.
 652 3rd Ave. East
 OWEN SOUND — Ontario
 N4K 2K1



**Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge**

MTO Site Number:

Field Inspection Information:	
Date of Inspection:	May 2, 2007 and May 3, 2007
Inspector:	D. Cowan, P.Eng. (Gamsby and Mannerow Limited)
Others in Party:	D. Brewster (Gamsby and Mannerow Limited)
Equipment Used:	Digital Camera, Measuring Tape, Hammer, Chain
Weather:	Overcast, periodic rain
Temperature:	8°C

Additional investigations Required:	Priority			Estimated Cost
	None	Normal	Urgent	
Detailed Deck Condition Survey:				
Non-destructive Delamination Survey of Asphalt Covered Deck:				
Substructure Condition Survey:				
Detailed Coating Condition Survey:				
Underwater Investigation:				
Fatigue Inspection:				
Seismic Investigation:				
Structure Evaluation:				
Monitoring of Deformations, Settlements and Movements				
			Total Cost	

Special Notes:

Extensive patchwork throughout deck soffit and girder beams. Toning revealed localized delaminations throughout structure.

Next Detailed Inspection:

Suspected Performance Deficiencies

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

Maintenance Needs

01 Lift and Swing Bridge Maintenance	07 Repair to Structural Steel	13 Erosion Control at Bridges
02 Bridge Cleaning	08 Repair of Bridge Concrete	14 Concrete Sealing
03 Bridge Handrail Maintenance	09 Repair of Bridge Timber	15 Rout and Seal
04 Painting Steel Bridge Structures	10 Bailey bridges - Maintenance	16 Bridge Deck Drainage
05 Bridge Deck Joint Repair	11 Animal/Pest Control	17 Other
06 Bridge Bearing Maintenance	12 Bridge Surface Repair	

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Data

Element Group:*		<i>Deck</i>			Length:	31.3m		
Element Name:*		<i>Wearing Surface</i>			Width:	9.4m		
Location:		<i>On Deck</i>			Height:			
Material:*		<i>Cost-in-place concrete</i>			Count:	1		
Element Type:*					Total Quantity:	294.22m ²		
Environment:		Benign / Moderate / Severe			Limited Insp'n	<input type="checkbox"/>		
Protection System:*		None				Perform. Deficiencies	Maint. Needs	
Condition Data:	Units	Exc.	Good	Fair	Poor	09.11	12	
	m ² / m / each / % / all			95	5			
Comments: <i>Longitudinal and transverse narrow cracks across full width on west side of bridge. Localized medium to severe spalling on north side of deck. Very severe delamination noted by toning top of deck.</i>								
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>								

Element Group:*		<i>Deck</i>			Length:	31.3		
Element Name:*		<i>Deck Top</i>			Width:	9.4		
Location:					Height:			
Material:*		<i>Cast-in-place Concrete</i>			Count:	1		
Element Type:*		<i>C-I-P Concrete on support composite</i>			Total Quantity:	294.22m ²		
Environment:		Benign / Moderate / Severe			Limited Insp'n	<input checked="" type="checkbox"/>		
Protection System:*		Wearing Surface				Perform. Deficiencies	Maint. Needs	
Condition Data:	Units	Exc.	Good	Fair	Poor	00		
	m ² / m / each / % / all							
Comments: <i>Toning revealed several patches which have delaminated at the mid and north half of the deck. Spalled areas which have previously been patched have continued to spall.</i>								
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input checked="" type="checkbox"/> Urgent <input type="checkbox"/>								

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Data

Element Group:*	<i>Deck</i>				Length:	<i>29.1</i>	
Element Name:*	<i>Soffit</i>				Width:	<i>11.16m</i>	
Location:					Height:		
Material:*	<i>Cast-In-place concrete</i>				Count:	<i>1</i>	
Element Type:*					Total Quantity:	<i>324.8m²</i>	
Environment:	Benign / <u>Moderate</u> / Severe				Limited Insp'n	<input type="checkbox"/>	
Protection System:*	<i>None</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor		
Data:	m ² / m / each / % / <u>all</u>			82	18	01	08
Comments:	<i>Concrete immediately above the utility box out has delaminated. Recommend lowering box out where it will not be in contact with the deck soffit. Severe spalling exposing reinforcing steel on north and south edges.</i>						
Recommended Work:	None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Element Group:*	<i>Decks</i>				Length:		
Element Name:*	<i>Drainage</i>				Width:	<i>0.15m</i>	
Location:					Height:		
Material:*	<i>Steel</i>				Count:	<i>4</i>	
Element Type:*	<i>4 Metal drain pipes</i>				Total Quantity:	<i>4each</i>	
Environment:	Benign / Moderate / <u>Severe</u>				Limited Insp'n	<input type="checkbox"/>	
Protection System:*	<i>Galvanized</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor		
Data:	m ² / m / each / % / <u>all</u>		X			00	
Comments:	<i>North East drain has a horizontal cut through half the width of the drain.</i>						
Recommended Work:	None <input type="checkbox"/> 6 – 10 years <input checked="" type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Element Group:*	<i>Joints</i>				Length:	<i>9.43m</i>	
Element Name:*	<i>Armouring/Retaining Wall</i>				Width:	<i>2.0m</i>	
Location:					Height:		
Material:*	<i>Steel</i>				Count:	<i>2</i>	
Element Type:*					Total Quantity:	<i>18.86m</i>	
Environment:	Benign / Moderate / <u>Severe</u>				Limited Insp'n	<input type="checkbox"/>	
Protection System:*	<i>none</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor		
Data:	m ² / <u>m</u> / each / % / all			18.36	0.5	09	05
Comments:	<i>Part of armourage is missing at mid span on the west end. Light surface pitting.</i>						
Recommended Work:	None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Data

Element Group:*	<i>Sidewalk/curbs</i>		Length:	31.3m			
Element Name:*	<i>Sidewalk</i>		Width:	2.0m			
Location:			Height:	0.3m			
Material:*	<i>Cast-in-place concrete</i>		Count:	2			
Element Type:*			Total Quantity:	125.2 m ³			
Environment:	Benign / Moderate / Severe		Limited Insp'n	<input type="checkbox"/>			
Protection System:*	None					Perform. Deficiencies	Maint. Needs
Condition Data:	Units	Exc.	Good	Fair	Poor	08,03	
	m ² / m / each / % / all		123.2	2			
Comments:	<i>Typical light to medium scaling along curb edge.</i> <i>Settlement in North East approach sidewalk. 1"-2" elevation difference.</i> <i>Transverse hairline cracks throughout</i>						
Recommended Work:	None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Element Group:*	<i>Barriers</i>		Length:	3.8 m			
Element Name:*	<i>Railing System</i>		Width:				
Location:			Height:				
Material:*	<i>Steel</i>		Count:	14			
Element Type:*	<i>Metal railing -steel</i>		Total Quantity:	53.2m			
Environment:	Benign / Moderate / Severe		Limited Insp'n	<input type="checkbox"/>			
Protection System:*	Paint					Perform. Deficiencies	Maint. Needs
Condition Data:	Units	Exc.	Good	Fair	Poor	00	04
	m ² / m / each / % / all		90		10		
Comments:	<i>Localized medium corrosion at bottom of each vertical member. Approach rail on south west corner-has permanently deformed and is missing sections.</i>						
Recommended Work:	None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Element Group:*	<i>Barriers</i>		Length:	0.45m			
Element Name:*	<i>Posts</i>		Width:	0.25m			
Location:	<i>Interior</i>		Height:	1.15m			
Material:*	<i>Cast in place concrete</i>		Count:	12			
Element Type:*			Total Quantity:	1.55m			
Environment:	Benign / Moderate / Severe		Limited Insp'n				
Protection System:*	None					Perform. Deficiencies	Maint. Needs
Condition Data:	Units	Exc.	Good	Fair	Poor	00	08
	m ² / m / each / % / all			95	5		
Comments:	<i>Localized medium to severe spalling on each post.</i>						
Recommended Work:	None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

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B-1097 9th Street Bridge

MTO Site Number:

Element Data

Element Group:*	<i>Barriers</i>	Length:	<i>1.2m</i>				
Element Name:*	<i>Posts</i>	Width:	<i>0.45m</i>				
Location:	<i>Each corner</i>	Height:	<i>1.15m</i>				
Material:*	<i>Cast-in-place Concrete</i>	Count:	<i>4</i>				
Element Type:*		Total Quantity:	<i>4</i>				
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input type="checkbox"/>				
Protection System:*	None					Perform. Deficiencies	Maint. Needs
Condition Data:	Units <i>m² / m / each / % / all</i>	Exc.	Good	Fair <i>X</i>	Poor	<i>00</i>	<i>08</i>
Comments: <i>Typical wide vertical crack below each lamp post</i>							
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input checked="" type="checkbox"/> < 1 year <input checked="" type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:*	<i>Beams</i>	Length:	<i>31.3m</i>				
Element Name:*	<i>Girders-Interior</i>	Width:	<i>0.66m</i>				
Location:		Height:	<i>Varies</i>				
Material:*	<i>Cast-in-place Concrete</i>	Count:	<i>2</i>				
Element Type:*	<i>T- type</i>	Total Quantity:	<i>190.1 m²</i>				
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input type="checkbox"/>				
Protection System:*	None					Perform. Deficiencies	Maint. Needs
Condition Data:	Units <i>m² / m / each / % / all</i>	Exc.	Good	Fair <i>96</i>	Poor <i>4</i>	<i>01</i>	<i>08</i>
Comments: <i>Toning noted some areas of delamination Extensive patch work on east side of north interior girder. Patch is in fair condition</i>							
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:*	<i>Beams</i>	Length:	<i>31.3m</i>				
Element Name:*	<i>Girders-Exterior</i>	Width:	<i>0.61m</i>				
Location:		Height:	<i>Varies</i>				
Material:*	<i>Cast in place concrete</i>	Count:	<i>2</i>				
Element Type:*	<i>T-type</i>	Total Quantity:	<i>187.2m²</i>				
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input type="checkbox"/>				
Protection System:*	None					Perform. Deficiencies	Maint. Needs
Condition Data:	Units <i>m² / m / each / % / all</i>	Exc.	Good	Fair <i>97</i>	Poor <i>3</i>	<i>01</i>	<i>08</i>
Comments:							
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Group:*	<i>Beams</i>		Length:	<i>10.4m</i>			
Element Name:*	<i>Stringer</i>		Width:	<i>0.381m</i>			
Location:	<i>At midspan</i>		Height:	<i>0.561m</i>			
Material:*	<i>Cast-in-place concrete</i>		Count:	<i>1</i>			
Element Type:*	<i>T-type</i>		Total Quantity:				
Environment:	Benign / <u>Moderate</u> / Severe		Limited Insp'n	<input type="checkbox"/>			
Protection System:*	<i>None</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor		
Data:	<i>m² / m / each / % / all</i>			<i>98</i>	<i>2</i>	<i>00</i>	<i>08</i>
Comments:							
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:*	<i>Beam</i>		Length:	<i>10.4m</i>			
Element Name:*	<i>Diaphragms</i>		Width:	<i>0.457m</i>			
Location:	<i>At piers</i>		Height:	<i>1.4m</i>			
Material:*	<i>Steel</i>		Count:	<i>6</i>			
Element Type:*	<i>Rectangular-Solid</i>		Total Quantity:	<i>10.7m</i>			
Environment:	Benign / <u>Moderate</u> / Severe		Limited Insp'n	<input type="checkbox"/>			
Protection System:*	<i>None</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor		
Data:	<i>m² / m / each / % / all</i>			<i>X</i>		<i>00</i>	
Comments:							
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:*	<i>Barriers</i>		Length:	<i>3.8m</i>			
Element Name:*	<i>Hand Railings</i>		Width:				
Location:			Height:				
Material:*	<i>Steel</i>		Count:	<i>14</i>			
Element Type:*	<i>Single railing</i>		Total Quantity:	<i>53.2</i>			
Environment:	Benign / Moderate / <u>Severe</u>		Limited Insp'n	<input type="checkbox"/>			
Protection System:*	<i>Paint</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor		
Data:	<i>m² / m / each / % / all</i>		<i>X</i>			<i>00</i>	
Comments:							
Recommended Work: None <input checked="" type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Group:*	<i>Coatings</i>	Length:	3.8m			
Element Name:*	<i>Railing Systems/Hand Railings</i>	Width:				
Location:		Height:				
Material:*	<i>Paint</i>	Count:	14			
Element Type:*		Total Quantity:				
Environment:	<i>Benign / Moderate / Severe</i>	Limited Insp'n	<input type="checkbox"/>			
Protection System:*	<i>None</i>				Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	
Data:	m ² / m / each / % / all		90		10	00
Comments: <i>Localized medium corrosion at the bottom of each vertical member.</i>						
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Element Group:*	<i>Abutments</i>	Length:	8.5m			
Element Name:*	<i>Ballast Wall</i>	Width:	0.457m			
Location:		Height:				
Material:*	<i>Paint</i>	Count:	14			
Element Type:*		Total Quantity:				
Environment:	<i>Benign / Moderate / Severe</i>	Limited Insp'n	<input checked="" type="checkbox"/>			
Protection System:*	<i>None</i>				Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	
Data:	m ² / m / each / % / all			92	8	00
Comments:						
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Element Group:*	<i>Abutments</i>	Length:				
Element Name:*	<i>Abutement walls</i>	Width:				
Location:		Height:				
Material:*	<i>Cast in place concrete</i>	Count:				
Element Type:*		Total Quantity:				
Environment:	<i>Benign / Moderate / Severe</i>	Limited Insp'n	<input checked="" type="checkbox"/>			
Protection System:*	<i>None</i>				Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	
Data:	m ² / m / each / % / all					00
Comments:						
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>						

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Group:*		<i>Piers</i>		Length:		0.64m		
Element Name:*		<i>Columns</i>		Width:		± 1.055m (varies)		
Location:		<i>Intermediate Piers</i>		Height:		3.0m		
Material:*		<i>Cast in place concrete</i>		Count:		8		
Element Type:*		<i>Concrete rectangular columns</i>		Total Quantity:		16.2m ³		
Environment:		Benign / Moderate / Severe		Limited Insp'n		<input type="checkbox"/>		
Protection System:*		None				Perform. Deficiencies		Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	00		
Data:	m ² / m / each / % / all		97		3			
Comments: <i>Vertical hairline cracks along front face of each exterior pier</i>								
Recommended Work: None <input checked="" type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>								
Element Group:*		<i>Retaining Walls</i>		Length:		17.5m		
Element Name:*		<i>Walls</i>		Width:		0.5m		
Location:		<i>South West Wall</i>		Height:		1.6m		
Material:*		<i>Other-flagstone</i>		Count:		1		
Element Type:*				Total Quantity:		28m		
Environment:		Benign / Moderate / Severe		Limited Insp'n		<input type="checkbox"/>		
Protection System:*		None				Perform. Deficiencies		Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	01	17	
Data:	m ² / m / each / % / all		98		2			
Comments: <i>Wall immediately below steel culvert has very severe disintegration below steel culverts.</i>								
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>								
Element Group:*		<i>Retaining Walls</i>		Length:		50.0m		
Element Name:*		<i>Walls</i>		Width:		0.5m		
Location:		<i>North West Wall</i>		Height:		2.1m		
Material:*		<i>Other-flagstone</i>		Count:		1		
Element Type:*				Total Quantity:		105m		
Environment:		Benign / Moderate / Severe		Limited Insp'n		<input type="checkbox"/>		
Protection System:*		None				Perform. Deficiencies		Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	00		
Data:	m ² / m / each / % / all		X					
Comments:								
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>								

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Group:*	<i>Foundation</i>	Length:	
Element Name:*	<i>Foundation</i>	Width:	
Location:		Height:	
Material:*		Count:	
Element Type:*		Total Quantity:	
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input checked="" type="checkbox"/>
Protection System:*			
Condition Data:	Units	Exc.	Good
	m ² / m / each / % / all		
Comments:			
Recommended Work: None <input checked="" type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>			

Element Group:*	<i>Culverts</i>	Length:	
Element Name:*	<i>Outlet component</i>	Width:	
Location:	<i>Southeast Corner</i>	Height:	<i>5'0" diameter</i>
Material:*	<i>Precast concrete</i>	Count:	
Element Type:*		Total Quantity:	
Environment:	Benign / <u>Moderate</u> / Severe	Limited Insp'n	<input checked="" type="checkbox"/>
Protection System:*	<i>None</i>		
Condition Data:	Units	Exc.	Good
	m ² / m / each / % / all		<i>X</i>
Comments:			
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>			

Element Group:*	<i>Culverts</i>	Length:	
Element Name:*	<i>Outlet components</i>	Width:	
Location:	<i>South west</i>	Height:	<i>12" diamter</i>
Material:*	<i>Corrugated steel</i>	Count:	
Element Type:*		Total Quantity:	
Environment:	Benign / <u>Moderate</u> / Severe	Limited Insp'n	<input checked="" type="checkbox"/>
Protection System:*	<i>Galvanized</i>		
Condition Data:	Units	Exc.	Good
	m ² / m / each / % / all		<i>X</i>
Comments: <i>Bottom of culvert has very severe corrosion</i>			
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>			

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Group:*	<i>Culverts</i>	Length:					
Element Name:*	<i>Outlet component</i>	Width:					
Location:	<i>South west</i>	Height:	<i>24inches</i>				
Material:*	<i>Corrugated steel</i>	Count:					
Element Type:*		Total Quantity:					
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input checked="" type="checkbox"/>				
Protection System:*	<i>Galvanized</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	16	07
Data:	m ² / m / each / % / <u>all</u>				X		
Comments: <i>Bottom of culvert has very severe corrosion.</i>							
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input checked="" type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:*	<i>Embankment and streams</i>	Length:	<i>15.6m</i>				
Element Name:*	<i>Slope protection</i>	Width:	<i>1.0m</i>				
Location:		Height:	<i>2.2m</i>				
Material:*	<i>Other-gabion baskets</i>	Count:	<i>2</i>				
Element Type:*		Total Quantity:	<i>68.6</i>				
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input checked="" type="checkbox"/>				
Protection System:*	<i>None</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	00	
Data:	m ² / m / each / % / <u>all</u>			X			
Comments:							
Recommended Work: None <input checked="" type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Element Group:*	<i>Signs</i>	Length:					
Element Name:*	<i>Signs</i>	Width:					
Location:		Height:					
Material:*		Count:					
Element Type:*		Total Quantity:	<i>4</i>				
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input type="checkbox"/>				
Protection System:*	<i>Galvanized</i>					Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	00	
Data:	m ² / m / each / % / <u>all</u>	X					
Comments: <i>Signage includes: No left turn sign Stop Sign No heavy truck sign (2)</i>							
Recommended Work: None <input type="checkbox"/> 6 – 10 years <input type="checkbox"/> 1 – 5 years <input type="checkbox"/> < 1 year <input type="checkbox"/> Urgent <input type="checkbox"/>							

Ontario Structure Inspection Manual – Inspection Form
B-1097 9th Street Bridge

MTO Site Number:

Element Group:*	<i>Embankment and streams</i>	Length:	<i>20.0m</i>			
Element Name:*	<i>Streams and Waterways</i>	Width:	<i>2.2m</i>			
Location:		Height:				
Material:*		Count:				
Element Type:*		Total Quantity:				
Environment:	Benign / Moderate / Severe	Limited Insp'n	<input checked="" type="checkbox"/>			
Protection System:*	<i>None</i>				Perform. Deficiencies	Maint. Needs
Condition	Units	Exc.	Good	Fair	Poor	
Data:	m ² / m / each / % / all	<i>X</i>				<i>00</i>

Comments:

Recommended Work: None 6 – 10 years 1 – 5 years < 1 year Urgent