

Appendix N.1 – Structural Inspection Report

Kennedy Road Environmental Assessment between Steeles Avenue and Major Mackenzie Drive



Structural Inspection Report

Class Environmental Assessment for Kennedy Road from Steeles Avenue to Major Mackenzie Drive

August 30, 2017

DRAFT

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1. Introduction

York Region is reviewing opportunities for improvements to Kennedy Road from Steeles Avenue to Major Mackenzie Drive. HDR has been retained to carry out a Municipal Class Environmental Assessment (Schedule 'C') study. The scope of the Environmental Assessment (EA) study includes Structural Assessment based on a visual inspection of all the structures included in the Kennedy Road study corridor. Site visits were conducted by HDR Structural staff on June 8, 2017. The preliminary structure assessment presented in this report is based on review of the available materials and visual observation of these bridges and may be modified as design progresses or when additional information becomes available.

2. Existing Structures

The structures included in the study corridor are located along Kennedy Road between Steeles Avenue and Major Mackenzie Drive and include the following bridges:

- CN Rail Underpass
- 407ETR Overpass
- Rouge River Bridge

These site visits were conducted under the supervision of Sardar Nabi, P.Eng., during day time without traffic interruption. Weather at time of inspection was as follows:

• Sunny, +22 C degrees, June 8, 2017

The photographs of each structure are included in **Appendix A** to this Report.

2.1 CN Rail Underpass

The existing bridge, Structure No. 03-03 B0380, is owned by York Region.

2.1.1 Location

The CN York Subdivision Bridge over Kennedy Road is located approximately 380m north of 14th Avenue, in the City of Markham. It currently carries two rail tracks over two northbound and two southbound lanes of traffic.

2.1.2 Existing Structure

Constructed in 1963, the CN Rail Underpass is simply supported, one span bridge with a steel ballast tray deck on transverse floor beams and two steel through plates. The structure has a span length of 22.1m and a width of 9.3m. The bridge deck is covered with railway ballast and carries two railway tracks.

The bridge spans over four traffics lanes (13.7m total), two sidewalks/boulevards (8.4m total), and has a vertical clearance of 4.57m (derived from existing drawings).

The substructure consists of reinforced concrete abutments and wingwalls supported on concrete footings.



The Ontario Structure Inspection Manual (OSIM) report, found in **Appendix B**, which was carried out on October 3, 2016, showed that the bridge was in good condition, but needed minor repairs for the following:

- Wide, stained, and map cracks on abutments
- Minor impact damage on Southeast girder's bottom flange
- Light to moderate corrosion of soffit

The site visual inspection carried out on June 8, 2017, verified that the 2016 OSIM report findings and recommendations are consistent with the current site conditions, with the addition of missing sections of the South trainmen's walk and wet areas on the soffit.

2.2 407ETR Overpass

The existing bridge is located at Site No. 37-1485.

2.2.1 Location

The 407ETR Overpass at Kennedy Road is located in the City of Markham. It currently carries three northbound and three southbound lanes of Kennedy Road over five eastbound and five westbound lanes of 407ETR.

2.2.2 Existing Structure

The 407ETR Overpass is a continuous, two span, cast-in-place concrete slab deck on 26 PCG 1900 girders (13 girders per span), bridge that was constructed in 1997. The structure has spans of 41.0m and 41.0m, with total length of 82.4m and a width of 30.46m.

The bridge deck is 0.225m deep and carries four 3.5m (inner) traffic lanes, two 3.75m (outer) lanes, two 1.5m shoulders, two 1.5m sidewalks, two 0.48m barrier walls, and one 2.0m median, and has a vertical clearance of 5.05m.

The substructure consists of reinforced concrete abutments and piers supported on steel piles, and wingwalls.

The OSIM reports for this bridge are not available at this time to verify. The site visual inspection carried out on June 8, 2017, found that the bridge is in good condition, but with the following defects:

- Impact damage on all guiderails
- Asphalt cracks and deterioration on newly paved transverse strip at both approach slabs
- Cracking on all sidewalks
- Cracking and spalling on all barrier walls
- Long vertical cracks on North abutment
- Concrete segregation at top of both abutments
- Concrete curb spalling by Northeast catch basin
- Northeast guiderail missing
- Partially filled pothole on Southeast road surface



- Impact damage on Southeast guiderail/barrier wall connection
- Delamination and cracks on South abutment

2.3 Rouge River Bridge

The existing bridge, Structure No. 03-06 B0400, is owned by York Region.

2.3.1 Location

Rouge River Bridge is located approximately 0.4km north of Regional Road 7 (Hwy 7), in the City of Markham. It currently carries two northbound and two southbound lanes of Kennedy Road over the Rouge River.

2.3.2 Existing Structure

The Rouge River Bridge is a simply supported, single span, cast-in-place concrete topping slab on fourteen precast concrete side by side boxgirders, bridge that was constructed in 1981. The structure has a span length of 30.5m and a width of 17m.

The box beams are 1.07m deep, and the topping slab is 0.127m deep and carries four traffic lanes (15.2m total) and two 1.83 m sidewalks (including railings).

The substructure consists of reinforced concrete abutments supported on steel tube piles, and wingwalls.

The OSIM report, found in **Appendix B**, which was carried out on September 15, 2016, showed that the bridge was in good condition, but needed minor repairs, including:

- Wide cracks and delamination on North abutment
- Spalls, stained, and wet areas on Northwest abutment
- Wide cracks, medium raveling, sealed cracks, and pot holes on asphalt road surface
- Spalls and delamination on North concrete end post
- Abrasion damage, unsecured, and missing end caps on railings
- Spalling at girder ends, exposed rebars
- Delamination on soffit, exposed rebar
- Missing blocks on abutment slope protection
- Spalls, cracks, and asphalt patches at top of expansions joints
- Cracking and spalling on sidewalks
- Local rail separation at railing post

The site visual inspection carried out on June 8, 2017, verified that the 2016 OSIM report findings and recommendations are consistent with the current site conditions, with the additions/exceptions of:

- Cracks on abutments and wingwalls not visible due to paint
- Paint peeling off and graffiti
- Spalling of Northwest bearing seat
- Missing cover of Northeast electrical box with spalling



- Dents on Northeast, Northwest, and Southwest guiderails
- Loss of concrete at underside of Northeast expansion joint
- Spalling of guiderail connections at Southwest, Northwest, and Northeast concrete end posts
- Exposed tie rod anchor at Southeast girder end
- Recommendation to replace existing handrails with new PL2 concrete barrier walls with railings
- Bridge found to be in moderate condition

2.4 Structural Evaluation

As part of this study an evaluation of the structures has not been carried out in accordance with the CHBDC CAN/CSA-S6-06 (CHBDC) and MTO Structural Manual.

3. Conclusion

Recommendations for the rehabilitation/modification/strengthening, or replacement of existing structures will be updated as the study progresses and alternative designs for Kennedy Road are developed. The preliminary design of each structure shall include, but is not limited to, consideration of structural bearing capacity, remaining service life, and constructability.

Inspected by Matthew Zalecki, Bridge EIT.
Checked by Vladimir Rogachyov, P.Eng., Structural Project Manager.
July 17, 2017.



Appendix A – 2017 Site Visit Photos

Kennedy Road Environmental Assessment between Steeles Avenue and Major Mackenzie Drive



Exhibit 01 – Kennedy Rd – CN Rail Underpass North Elevation with Overhead Cable (view from North)



Exhibit 02 – Kennedy Rd – CN Rail Underpass East Abutment (view from West)



Exhibit 03 – Kennedy Rd – CN Rail Underpass Wide Crack on East Abutment, Base of Middle Portion (view from West)



Exhibit 04 – Kennedy Rd – CN Rail Underpass Wide & Map Cracking on East Abutment, Top of Middle Portion (view from West)



Exhibit 05 – Kennedy Rd – CN Rail Underpass Stained Map Cracks on Southeast Wingwall (view from Southwest)



Exhibit 06 – Kennedy Rd – CN Rail Underpass Northeast Girder End with Utilities (view from North)



Exhibit 07 – Kennedy Rd – CN Rail Underpass

Map Cracks and Efflorescence on Southwest Bearing Seat (view from South)



Exhibit 08 – Kennedy Rd – CN Rail Underpass South Exterior Girder & Trainmen's Walk, Missing Sections (view from West)



Exhibit 09 – Kennedy Rd – CN Rail Underpass Soffit (view from West)

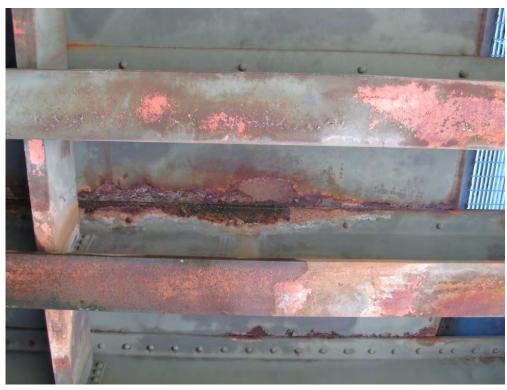


Exhibit 10 – Kennedy Rd – CN Rail Underpass Corrosion & Wet Areas on Southwest Soffit (view from West)



Exhibit 11 – Kennedy Rd – CN Rail Underpass
Impact Damage on Bottom Flange of Southeast Girder (view from Southeast)



Exhibit 12 – Kennedy Rd – CN Rail Underpass Top of Deck (view from West)



Exhibit 13 – Kennedy Rd – 407ETR Overpass West Elevation (view from West)



Exhibit 14 – Kennedy Rd – 407ETR Overpass North Abutment (view from West)



Exhibit 15 – Kennedy Rd – 407ETR Overpass

Delamination on Southeast Abutment (view from North)



Exhibit 16 – Kennedy Rd – 407ETR Overpass Concrete Segregation on North Abutment, Top of Middle Portion (view from South)



Exhibit 17 – Kennedy Rd – 407ETR Overpass Southeast Wingwall (view from Northeast)



Exhibit 18 – Kennedy Rd – 407ETR Overpass Soffit & Piers (view from North)

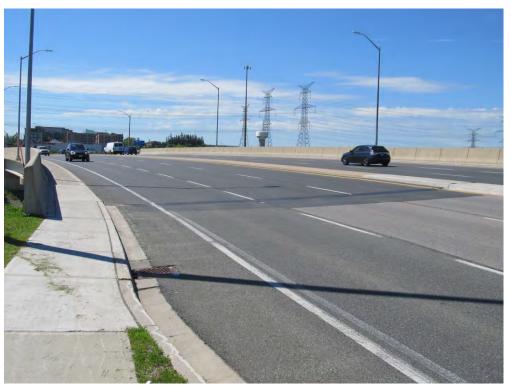


Exhibit 19 – Kennedy Rd – 407ETR Overpass Road Surface on Deck (view from Northeast)



Exhibit 20 – Kennedy Rd – 407ETR Overpass Cracks and Deterioration on North Approach (view from West)

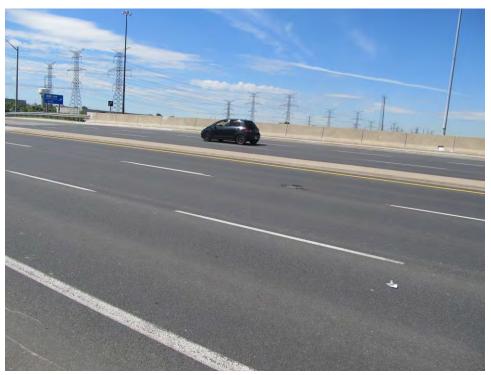


Exhibit 21 – Kennedy Rd – 407ETR Overpass Pot Hole on Southeast Road Surface (view from East)



Exhibit 22 – Kennedy Rd – 407ETR Overpass Missing Guiderail at Southeast Barrier Wall & Sidewalk (view from North)



Exhibit 23 – Kennedy Rd – 407ETR Overpass Wide Crack on Southeast Sidewalk (view from North)



Exhibit 24 – Kennedy Rd – 407ETR Overpass Cracks & Spalls on East Barrier Wall at Middle Light Pole (view from West)



Exhibit 25 – Kennedy Rd – 407ETR Overpass Impact Damage at Southeast Barrier Wall/Guiderail Connection (view from North)



Exhibit 26 – Kennedy Rd – 407ETR Overpass Damage on Southwest Guiderail (view from East)



Exhibit 27 – Kennedy Rd – Rouge River Bridge East Elevation (view from Southeast)



Exhibit 28 – Kennedy Rd – Rouge River Bridge North Abutment, Graffiti & Missing Slope Protection Blocks (view from Southeast)



Exhibit 29 – Kennedy Rd – Rouge River Bridge Soffit (view from North)



Exhibit 30 – Kennedy Rd – Rouge River Bridge Delamination & Exposed Rebar on North End of Soffit (view from South)



Exhibit 31 – Kennedy Rd – Rouge River Bridge Spalling on Northwest Bearing Seat (view from West)



Exhibit 32 – Kennedy Rd – Rouge River Bridge Exposed Rebar on Southwest Girder End (view from West)



Exhibit 33 – Kennedy Rd – Rouge River Bridge Loss of Concrete under Northeast Expansion Joint (view from East)



Exhibit 34 – Kennedy Rd – Rouge River Bridge Southeast Wingwall (view from Northeast)



Exhibit 35 – Kennedy Rd – Rouge River Bridge Road Surface on Deck (view from North)



Exhibit 36 – Kennedy Rd – Rouge River Bridge South Expansion Joint, Cracks/Deterioration/Patches (view from West)



Exhibit 37 – Kennedy Rd – Rouge River Bridge West Sidewalk & Railing, Cracks & Spalling (view from North)



Exhibit 38 – Kennedy Rd – Rouge River Bridge Spall & Missing Cover from Northeast Electrical Box (view from West)



Exhibit 39 – Kennedy Rd – Rouge River Bridge Spalling & Loose End Caps on Southeast Railing (view from West)



Exhibit 40 – Kennedy Rd – Rouge River Bridge Dent & Missing Bolt on Northeast Guiderail (view from West)



Appendix B–
2014 and 2016
Ontario Structure
Inspection Manual
Reports (by others)

Kennedy Road Environmental Assessment between Steeles Avenue and Major Mackenzie Drive

Summary Action Report Structure 03-03 B0380 (MTO Site No. 037-0671) Kennedy CNR Underpass

Inspection Date 09/18/2014 mm/dd/yyyy **Condition Index Value (BCI)** 73.6 Next Biennial Inspection 09/18/2016 mm/dd/yyyy **Current Rep. Value** \$3,017,495 **Additional Investigations** Investigation **Priority** Cost Investigation **Priority** Cost No additional investigations required. **Performance Deficiencies** No Performance Deficiencies **Maintenance Needs Element Group** Element **Maintenance Required Priority** Comment Sidewalks/curbs Sidewalks/Medians Other Reweld trainmen's walk to 2 yr bracket Repair/Rehabilitation **Element Group Element** Repair/Rehabilitation Priority Cost Abutments Abutment Walls Rehab Seal cracks \$5,000 1-5 yrs Total Repair/Rehabilitation Cost \$5,000 Region of York 100 % \$19,000.00 **Total Associated Work Cost** \$14,000 0 % \$0.00 **Total Cost** \$19,000 **Overall Comments** Seal cracks in abutment.



Municipal Structure Inspection Form

| Structure Number: | 03-03 B0380 |
|-------------------|-------------|
|-------------------|-------------|

| Inventory Data | | | | | |
|------------------------|-------------------------------------|---------------------------|--|--|--|
| Structure Name | Kennedy CNR Underpass | Hwy No. | 3 Key Photo | | |
| Cross. Type Over | ☐Road ✔ Rail ☐ Ped ☐ Nav. | Water Non-Nav. Wat | Other | | |
| Cross. Type Under | ✓ Road Rail Ped Nav. | Water Non-Nav. Wat | Other | | |
| Road Name | Kennedy Road | | | | |
| Structure Location | 0.38km North of 71 - 14th Avenue | | | | |
| Latitude | 43.84695 Longitude -79.30592 | Cur. Rep.Value \$3,01 | 7,495 | | |
| Owner(s)/ | Region of York | 100 % | ** | | |
| % Share | | 0 % Heritage Status | Not Considered for Designation | | |
| MTO Region | Central | Road Side Env. | Urban | | |
| MTO District | Central | Road Class | Arterial | | |
| Old County | York | Lane Type | | | |
| Geographic Twp. | | Posted Speed | 60 No. of Lanes 4 | | |
| Structure Type | I-Beam or Girders | AADT | 37825 Pct. Trucks 6 | | |
| Structure Material | Structural Steel | Inspection Route S | equence | | |
| Articulation | Simply Supported | Interchange Numbe | er | | |
| Total Deck Length | 23.1 m Road Width | 3.7 m Interchange Structu | ure Number | | |
| Overall Width | 9.3 m Vert. Clear. | 0 m Detour Length | 0 km Skew Angle 0 ° | | |
| Total Deck Area | 214.83 m ² No. of Spans | 1 Fill on Structure | 0 m Struct. Dir. East/West | | |
| Special Routes | ✓ Transit ✓ School ☐ Truck ☐ | Bicycle Insp. Duration | 2 hr | | |
| Spans | | | cture and calculated using benchmark costs. Capital irements for widening or lengthening of the structure. | | |
| Span Name | Span Length | Span Name | Span Length | | |
| Span 1 | 22.1 m | | | | |
| Historical Data | | | | | |
| Year Built | 1963 yyyy | Year of Last Major Rehab | уууу | | |
| Last OSIM Inspection | n 08/09/2012 mm/dd/yyyy | Contract No. When Built | | | |
| Last Enhanced OSIN | mm/dd/yyyy | Last Evaluation | mm/dd/yyyy | | |
| Last Enhanced Acce | ss mm/dd/yyyy | Current Load Limit | | | |
| Last Underwater Ins | p. mm/dd/yyyy | Load Limit By-Law No. | mm/dd/yyyy | | |
| Last Condition Surv | ey mm/dd/yyyy | By-Law Expiry Date | mm/dd/yyyy | | |

Rehab History

| Municipal Structure Inspection Form | | | : | Structure Number: | | | 03-03 B0380 | | |
|-------------------------------------|---|----------------------|-----------------|-------------------|-------------|--------------|--------------|-----------------|--|
| Field Inspe | ection Information | : | | | | | | | |
| Inspection Date | 9 09/18/2014 mr | n/dd/yyyy 🔲 i | Multi Day Inspe | ection | ✓ (| OSIM E | nhanced OSIM | BCI 73.6 | |
| Inspector | T. Fediw | | Eng | . Respons | sible D. L. | Baxter, P. E | ng. | | |
| Others in Party | P. Adams | | | | | | | | |
| Access Equip. | | dder Boa | at Brid | lge Master | Other | | | | |
| Other Equip. | Camera, Hammer, | Other Hand Tools | | | | | | | |
| Weather | Rain | | | | Tempera | ture | 18 °C | | |
| Additional | Investigations Re | quired: | | | | | | | |
| Investigation | | | | | Priority | | | Estimated Cost | |
| Detailed Deak C | andition Survey | | | None | Normal | Urgent | | C O | |
| Detailed Deck C | ondition Survey irvey of Asphalt-Covered D | ack | | | | | | \$0 \$0 | |
| | ructure Condition Survey | GUN | | | | | | \$0 | |
| | Condition Survey | | | | | | | \$0 | |
| Detailed Timber | - | | | | | | | \$0 | |
| Post-Tensioned | Strand Investigation | | | | | | | \$0 | |
| Underwater Inve | estigation | | | | | | | \$0 | |
| Fatigue Investiga | ation | | | | | | | \$0 | |
| Seismic Investig | ation | | | | | | | \$0 | |
| Structure Evalua | ation | | | | | | | \$0 | |
| Monitoring of De | eformations, Movements ar | d Settlements | | | | | | \$0 | |
| Monitoring of Cra | ack Widths | | | | | | | \$0 | |
| Investigation N | lotes | | | | | | Total Cost | \$0 | |
| | | | | | | | | | |
| | ucture Notes: | None | Dahah | | Replace | Remo | 21.0 | | |
| | Work on Structure | None | ✓ Rehab Now | _ | to 5 years | _ | 0 years | | |
| Overall Comments | Seal cracks in abutment. | | | | , | | 3,555 | | |
| BCI Change Justification | | | | | | | | | |
| Next Inspection | 09/18/2016 n | nm/dd/yyyy | | Estimate | ed Load Lim | i t t | t | t | |



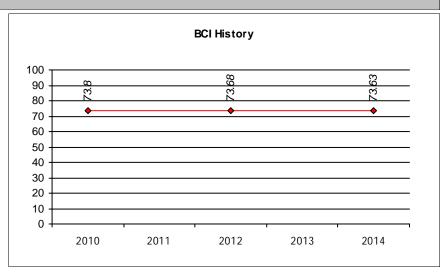
Municipal Structure Inspection Form

Structure Number:

03-03 B0380

BCI History

| Insp. Date | BCI | Inspector |
|------------|-------|-----------|
| 11-Nov-10 | 73.8 | J.M. Youk |
| 09-Aug-12 | 73.68 | D. Kelly |
| 18-Sep-14 | 73.63 | T. Fediw |



All BCI values are based on the MTO BCI methodology published in April 2008. As a result, BCI values for 2007 and earlier are approximate only, with potential discrepancies resulting from changes (over time) in the way quantities for certain elements are calculated.

Standard Codes

Suspected Performance Deficiencies

- 00
- 01 Load carrying capacity
- Excessive deformations (deflections/rotations) 02
- 03 Continuing settlement
- 04 Continuing movements
- 05 Seized bearings
- **Maintenance Needs**
- Lift and Swing Bridge Maintenance
- 02 Bridge Cleaning
- Bridge Handrail Maintenance
- Painting Steel Bridge Structures
- Bridge Deck Joint Repair
- Bridge Bearing Maintenance

- Bearing not uniformly loaded/unstable 06
- Jammed expansion joint 07
- 08 Pedestrian/vehicular hazard
- 09 Rough riding surface
- 10 Surface ponding
- 11 Deck drainage

- 12 Slippery surfaces
- Flooding/channel blockage 13
- Undermining of foundation 14
- 15 Unstable embankments
- 16 Other

- 07
 - Repair to Structural Steel Repair of Bridge Concrete 08
 - Repair of Bridge Timber 09
 - 10 Bailey Bridges - Maintenance
 - Animal/Pest Control
 - 12 Bridge Surface Repair
- **Erosion Control at Bridges** 13
- Concrete Sealing 14
- 15 Rout and Seal
- 16 Bridge deck Drainage
- Scaling (Loose Concrete or ACR Steel) 17
- 18

Municipal Structure Inspection Form

Structure Number:

03-03 B0380

| Element Data | | | | | | | |
|---------------------------|-------------------|-------------------|----------|--------------------|-------------------------|--|--|
| Beams/MLE's - G | irders | | | | | | |
| Element Group | Beams/MLE's | | | Length 2 | 3.00 Width 0.45 | | |
| Element Name | Girders | | | Height | 2.50 Count 2.00 | | |
| Location | All | | | To | otal Quantity 292.10 | | |
| Material | Steel | | | ☐ Limited Insp | pection | | |
| Element Type | I-type | | | Environment | | | |
| Protection System | Red lead primer/s | alkyd | | ✓ Benign | | | |
| Condition Data | Units Exc | ell. Good Fair | Poor | Moderate | | | |
| Comments | sq. m | 0.00 292.10 0 | .00 | Severe | | | |
| Light corrosion. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | _ | | | | | | |
| Performance Deficience | eies | Maintenance Needs | Priority | Comments | | | |
| None | | | | | | | |
| Rehab/Repair Recomm | MLE's - Girders | | | | | | |
| • | | · | | | | | |
| Beams/MLE's - F | loor Beams | | | | | | |
| Element Group | Beams/MLE's | | | Length | 9.30 Width 0.25 | | |
| Element Name | Floor Beams | | | Height | 0.60 Count 25.00 | | |
| Location | Between Girders | | | To | tal Quantity 453.38 | | |
| Material | Steel | | | Limited Inspection | | | |
| Element Type | | | | Environment | | | |
| Protection System | Red lead primer/s | alkyd | | ☑ ☑ Benign | | | |
| Condition Data | Units Exc | ell. Good Fair | Poor | Moderate | | | |
| 0 | sq. m | 0.00 453.38 0 | .00 0.00 | Severe | | | |
| Comments Light corrosion. | - | | | | | | |
| _g | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Performance Deficience | eies | Maintenance Needs | Priority | Comments | | | |
| None | | | | | | | |
| Rehab/Repair Recomm | nendations | Priority Cost Co | mments | | | | |
| · · · · · · | | • | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



Region of York **Municipal Structure Inspection Form Structure Number:** 03-03 B0380 **Abutments - Abutment Walls Element Group Abutments** Length 11.00 Width 0.00 2.00 **Element Name** Abutment Walls Height 4.40 **Count** Location East Side and West Side 96.80 **Total Quantity** ☐ Limited Inspection Material Cast-in-place concrete Conventional Closed **Element Type Environment Protection System** None Benign **Condition Data** Moderate Units Excell. Good Fair Poor 0.00 1.00 1.00 sq. m 94.80 ✓ Severe Comments Narrow stained crack, wet area, wide cracks. **Performance Deficiencies Maintenance Needs** Priority **Comments** None Rehab/Repair Recommendations **Priority** Cost Comments Rehab 1-5 yrs Seal cracks \$5,000 **Abutments - Bearings** 0.00 0.00 Width **Element Group** Abutments Length 0.00 Count 4.00 **Element Name Bearings** Height **Total Quantity** 4.00 Location Top of Abutments Limited Inspection Material Steel **Element Type** Other **Environment Protection System** Red lead primer/alkyd ✓ Benign Units Moderate **Condition Data** Excell. Good Fair Poor Each 0.00 4.00 0.00 0.00 Severe Comments **Performance Deficiencies Maintenance Needs** Priority Comments None



Rehab/Repair Recommendations

Cost

Comments

Priority

| \Malla | | | ture Nu | | | 380 |
|--|---|---|---|--|--|-----------------------|
| : Walls | | | | | | |
| outments | | | | Length | 11.00 Width | 0.00 |
| allast Walls | | | | Height | 1.40 Count | 2.00 |
| ast Side and W | est Side | | | | Total Quantity | 30.80 |
| ast-in-place co | ncrete | | | Limite | d Inspection | |
| | | | | Environment | | |
| one | | | ✓ Benig | n | | |
| its Exc | ell. Good | Fair | Poor | ☐ Mode | rate | |
| sq. m 0.00 30.80 0.00 0.00 | | | | Severe | | |
| | Maintenance Needs | | Priority | Comments | | |
| | | | | | | |
| | | | | | | |
| dations | Priority Co | ost Comment | ts | | | |
| | | | | | | |
| alls | | | | | | |
| outments | | | | Length | 5.60 Width | 0.00 |
| ingwalls | | | | Height | 4.00 Count | 4.00 |
| I Quadrants | | | | _ | Total Quantity | 89.60 |
| ast-in-place co | ncrete | | | Limited Inspection | | |
| | | | | Environm | ent | |
| one | | | | Benign | | |
| its Exc | ell. Good | Fair | Poor | ✓ Mode | rate | |
| . m | 0.00 89.60 | 0.00 | 0.00 | Sever | е | |
| | | | | | | |
| | | | | | | |
| | Maintenance Needs | i | Priority | Comments | | |
| | | | · · · · | Comments | | |
| dations | | s ost Comment | · · · · | Comments | | |
| dations | | | · · · · | Comments | | |
| dations | | | · · · · | Comments | | |
| dations | | | · · · · | Comments | | |
| | dations dations alls outments ingwalls Quadrants ast-in-place contains one its Exc | Maintenance Needs dations Priority Co alls cutments ingwalls Quadrants ast-in-place concrete one its Excell. Good | Maintenance Needs Maintenance Needs Priority Cost Comment alls outments ingwalls Quadrants ast-in-place concrete its Excell. Good Fair | Maintenance Needs Priority Priority Cost Comments alls putments ingwalls Quadrants ast-in-place concrete its Excell. Good Fair Poor | Environm Its Excell. Good Fair Poor Moder | Environment Benign |



Municipal Structure Inspection Form Structure Number: 03-03 B0380

| Embankments & | Streams - En | nbankments | | | | |
|------------------------|------------------|-------------------|----------|----------|-------------------|------|
| Element Group | Embankments 8 | Streams | | Length | 0.00 Width | 0.00 |
| Element Name | Embankments | | | Height | 0.00 Count | 4.00 |
| Location | All Quadrants | | | | Total Quantity | 4.00 |
| Material | Other | | | Limite | d Inspection | |
| Element Type | | | | Environm | ent | |
| Protection System | Vegetation | | | Benigr | า | |
| Condition Data | Units Exc | ell. Good Fai | r Poor | Moder | ate | |
| Comments | Each | 0.00 4.00 | 0.00 | Severe | Э | |
| Performance Deficience | cies | Maintenance Needs | Priority | Comments | | |
| None | | | | | | |
| Rehab/Repair Recomm | nendations | Priority Cost C | omments | | | |
| Embankments & | Streams - Slo | ope Protection | | | | |
| Element Group | Embankments 8 | Streams | | Length | 0.00 Width | 0.00 |
| Element Name | Slope Protection | | | Height | 0.00 Count | 4.00 |
| Location | All Quadrants | | | | Total Quantity | 4.00 |
| Material | Vegetation | | | Limite | d Inspection | |
| Element Type | Vegetation | | | Environm | ent | |
| Protection System | None | | | Benigr | า | |
| Condition Data | Units Exc | ell. Good Fai | r Poor | Moder | ate | |
| Comments | Each | 0.00 4.00 | 0.00 | Severe | e | |
| Performance Deficience | cies | Maintenance Needs | Priority | Comments | | |
| 140116 | | | | | | |
| Rehab/Repair Recomm | nendations | Priority Cost C | omments | | | |



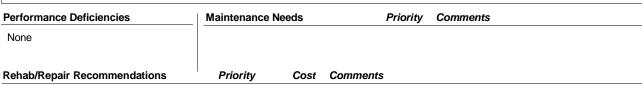
Municipal Structure Inspection Form

Structure Number: 03-03 B0380

| Foundations - F | oundations (k | pelow ground leve | el) | | | | |
|------------------------|------------------|-------------------|-------------|-------------|-------------|-------------------|--------|
| Element Group | Foundations | | | | Length | 0.00 Width | 0.00 |
| Element Name | Foundations (be | low ground level) | | | Height | 0.00 Count | 0.00 |
| Location | Below Abutment | ts | | | | Total Quantity | 0.00 |
| Material | | | | | ✓ Limite | d Inspection | |
| Element Type | | | | | Environm | ent | |
| Protection System | | | | | Benigi | n | |
| Condition Data | Units Exc | cell. Good | Fair | Poor | Moder | ate | |
| Comments | | | | | Severe | е | |
| Limited inspection. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Performance Deficien | aiaa | Maintenance Needs | | Duiovitu | Comments | | |
| None | cies | waintenance Needs | • | Priority | Comments | | |
| None | | | | | | | |
| Rehab/Repair Recom | mendations | Priority Co | ost Comment | s | | | |
| | | | | | | | |
| Coatings - Struc | tural Steel | | | | | | |
| Element Group | Coatings | | | | Length | 0.00 Width | 0.00 |
| Element Name | Structural Steel | | | | Height | 0.00 Count | 0.00 |
| Location | Girders | | | | | Total Quantity | 760.00 |
| Material | Other | | | | Limite | d Inspection | |
| Element Type | Red lead primer | /alkyd | | | Environm | ent | |
| Protection System | None | | | | Benigi | n | |
| Condition Data | Units Exc | cell. Good | Fair | Poor | Moder Moder | ate | |
| Comments | sq. m | 0.00 490.00 | 270.00 | 0.00 | ✓ Severe | е | |
| Breakdown of coating r | noted. | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Dawfarman Daffaian | -1 | Maintananaa Naada | | Duin vite : | 0 | | |
| Performance Deficient | cies | Maintenance Needs |) | Priority | Comments | | |
| None | | | | | | | |
| Rehab/Repair Recom | mendations | Priority Co | ost Comment | s | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



Region of York **Municipal Structure Inspection Form Structure Number:** 03-03 B0380 Decks - Soffit - Thick Slab **Element Group** Decks Length 23.10 Width 9.30 1.00 **Element Name** Soffit - Thick Slab Height 0.00 **Count** Location 214.83 Underside of Deck **Total Quantity** ☐ Limited Inspection Material Steel **Element Type Environment Protection System** Red lead primer/alkyd Benign Excell. Moderate **Condition Data** Units Good Fair Poor 0.00 0.00 0.00 sq. m 214.83 Severe Comments Light to moderate corrosion. **Performance Deficiencies Maintenance Needs** Priority **Comments** None Comments Rehab/Repair Recommendations **Priority** Cost Beams/MLE's - Stringers Beams/MLE's 0.60 Width 0.10 **Element Group** Length Stringers 48.00 **Element Name** Height 0.50 **Count Total Quantity** 48.00 Location On Floor Beams Limited Inspection Material Steel **Element Type** I-type **Environment Protection System** Red lead primer/alkyd ✓ Benign Units Moderate **Condition Data** Excell. Good Fair Poor Each 0.00 48.00 0.00 0.00 Severe Comments Light corrosion. **Performance Deficiencies Maintenance Needs Priority Comments**





Region of York **Municipal Structure Inspection Form Structure Number:** 03-03 B0380 Sidewalks/curbs - Sidewalks/Medians **Element Group** Sidewalks/curbs Length 21.30 Width 0.78 2.00 **Element Name** Sidewalks/Medians Height 0.00 **Count** Location North Side and South Side 33.23 **Total Quantity** ☐ Limited Inspection Steel Material **Element Type Environment Protection System** None ✓ Benign **Condition Data** Moderate Units Excell. Good Fair Poor 0.00 1.00 1.00 sq. m 31.23 Severe Comments Trainmen's walk in Northeast quadrant is not welded to the support bracket. **Performance Deficiencies Maintenance Needs** Priority **Comments** Other None 2 yr Reweld trainmen's walk to bracket Comments Rehab/Repair Recommendations **Priority** Cost **Accessories - Utilities** 0.00 0.00 Width **Element Group** Accessories Length 1.00 **Element Name** Utilities Height 0.00 **Count Total Quantity** 1.00 Location North Side Limited Inspection Material Steel **Element Type Environment Protection System** ✓ Benign Hot dip galvanizing Moderate **Condition Data** Units Excell. Good Fair Poor 0.00 1.00 0.00 0.00 Each Severe Comments Light corrosion. **Performance Deficiencies Maintenance Needs Priority** Comments None Rehab/Repair Recommendations **Priority** Cost Comments



Region of York

Municipal Structure Inspection Form Structure Number: 03-03 B0380

| Accessories - Si | igns | | | | | | |
|------------------------|--------------------|------------------|-------------|----------|----------|-----------------------|------|
| Element Group | Accessories | | | | Length | 0.00 Width | 0.00 |
| Element Name | Signs | | | | Height | 0.00 Count | 2.00 |
| Location | North and South | h Sides | <u> </u> | | | Total Quantity | 2.00 |
| Material | | | | | ☐ Limite | ed Inspection | |
| Element Type | | | | | Environm | nent | |
| Protection System | | | | | Benig | n | |
| Condition Data | Units Ex | cell. Good | Fair | Poor | ✓ Moder | rate | |
| Comments | Each | 0.00 2.00 | 0.00 | 0.00 | Sever | е | |
| Minor collision damage | to sign walkway no | oted. | | | | | |
| Performance Deficien | ncies | Maintenance Need | ls | Priority | Comments | | |
| None | | | | | | | |
| Rehab/Repair Recom | mendations | Priority (| Cost Commen | ts | | | |



Municipal Structure Inspection Form

Structure Number:

03-03 B0380

| Repair/Reh | abilitation Required | d | | |
|---------------|----------------------|-----------------------|----------------------------------|---------|
| Element Group | Element | Repair/Rehabilitation | Priority | Cost |
| Abutments | Abutment Walls | Rehab | 1-5 yrs | \$5,000 |
| | | | Total Repair/Rehabilitation Cost | \$5,000 |
| | 147 1 | | | |

| Estimated Cost |
|-------------------|
| \$0 |
| \$0 |
| \$5,000 |
| \$0 |
| \$0 |
| \$0 |
| \$0 |
| ** \$1,000 |
| ** \$8,000 |
| st \$14,000 |
| st \$5,000 |
| st \$19,000 |
| % \$19,000 |
| |
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| |





Looking East Over Bridge



North Elevation



South Elevation



Trainmans Walk not Welded Down



Typical Soffit



Typical Soffit



Vehicle Strike Damage on Exterior Sign



Vehicle Strike Damage on Sign



Fascia



Corrosion on Girder



Corrosion on Girder



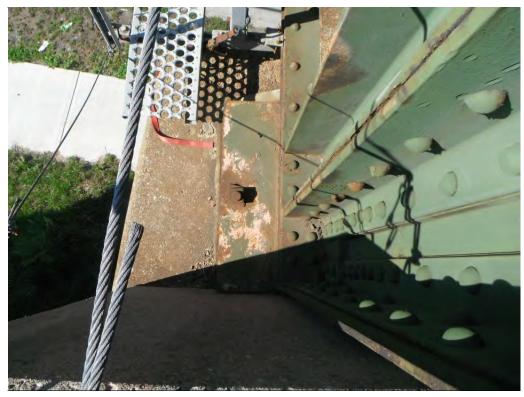
Crack on Abutment



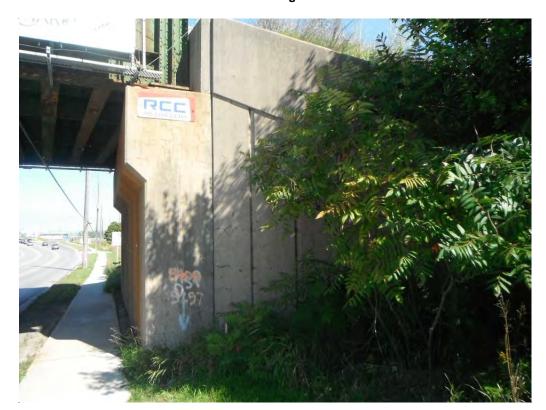
Crack on Abutment



West Abutment



Bearing



Typical Wingwall



Map Cracking on Wingwall



Southeast Wingwall



Northeast Wingwall



Top of Retaining Wall



Bridge Inspection Form

| Struct. ID | 03-03 B | 0380 | | | | | | | | | |
|-----------------------------|---------------|---------|-----------------|----------------|------------------|--------------|-------|----------|--|----------|-------|
| Inventory Data | | | | | | | | | | | |
| Structure Name | Kennedy (| CNR | Underpass | | | | 2 | 1 | | OP 3 | 3 / |
| Structure Location | | | 71 - 14th Avenu | ue | | | | | | | |
| Road Number | 3 | | On | | Under X | | | | | | |
| Road Name | Kennedy I | Road | | | | | P.Lo. | 1 | | | - |
| Watercourse Name | | | | | | | | | Mann's Policy Strong Course of Strong | | - 1 m |
| Crossing Type: | Road River | = | Rail Other | Water Creek | Navigable wa | aterway [| | | No. | | |
| Hwy Direction | 2-EAST/V | VEST | | | | | | | | | |
| Owner Category | | | | | | | | | | - Walter | 1 |
| Maint.Resp. | | | | | Northing | | | 43.846 | 95 | | |
| Region | York Regi | on | | | Easting | | | -79.305 | 592 | | |
| District | Southeast | | | | National Highw | ay System | | | | | |
| Municipality | Markham | | | | Highway Desig | nation | | | | | |
| Township | | | | | Hwy Functiona | l Classifica | ation | | | | |
| Structure Category | Bridge | | | | AADT | | | No. of I | _anes | | 4 |
| Main Struct. Subcateg. | Beam/Gire | der | | | Trucks (%) | | 6 | Posted | Speed | | 60 |
| Main Struct. Type | Half-throu | igh Be | ams / Girders | | District Bridge | Engineer | | | | | |
| Deck Length (Total) | | | 23.10 (m) | | Road Authority | | | | | | |
| Overall Structure Width | | | 9.30 (m) | | Bridge Plan # | | | | | | |
| Deck Area (Total) | | | 214.83 (Sq. | .m) | Min. Vertical Cl | earance | | | | (m) |) |
| Width (Traffic) | | | 13.70 (m) | | Detour Distanc | e | | | | (km | 1) |
| Skew Angle | | | 0.00 | | Speed on Deto | ur | | | | (kpl | n) |
| Number of spans | | | 1 | | Fill Height | | | | | (m) | |
| Total Length / Spans (m) | Total = 22 | 2.10; (| 1) = 22.1 | | | | | · | | | |
| Historical Data | | | | | | | | | | | |
| Year Built | | 19 |)63 | Eva | luation Year | | | | | | |
| Last Biennial Inspection | | Octo | ber 03, 2016 | Cur | rent Load Limit | | | | | | |
| Last Bridge Master Inspecti | ion | | | Cur | rent BCI | | | | 73.44 | | |
| Last Condition Survey | | | | Cur | rent BCU | | | | 43.00 | | |
| Last Underwater Inspection | 1 | | | Cur | rent SI | | | | 13.04 | | |
| Rehab. History | | | | | | | | | | | |



Bridge Inspection Form

| Struct. ID | 0 | 3-03 B0380 | | | | | | |
|--------------|---|------------|----|--|------------|----------|---|--|
| Scheduled | Improvements | | | | | | | |
| Regional Pri | iority Number | | | | Programmed | Wo | rk Year | |
| Nature of P | rogrammed Work | - | | | | | - | |
| | J | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| Appraisal I | ndices | | | | Com | nmer | nts | |
| Lood Conce | ity lodov | | | | | | | |
| Load Capac | | | | | | | | |
| Flood Index | | | | | | | | |
| Barrier Inde | × | | | | | | | |
| Curb Index | | | | | | | | |
| Seismic Ind | ex | | | | | | | |
| Fatigue Inde | ex | | | | | | | |
| Scour Index | (| | | | | | | |
| Structure In | dex | | | | | | | |
| | | | | • | | | | |
| | | | | | | | | |
| Suspected P | erformance Deficiencies | | | | | | | |
| 00 | None | | | Bearings not uniformly loaded/unstab | | 12 | Slippery surface | |
| 01 02 | Load carrying capacity Excessive deformations (deflections | | | Jammed expansion joint Pedistrian/vehicular hazard | | 13 14 | Flooding/channel blockage Undermining of foundation | |
| 03 | Continuing settlement | | | Rough riding surface | | 15 | Unstable embankments | |
| 04 | Continuing movements | | | Surface ponding | | 16 | Other | |
| 05 | Seized bearings | | 11 | Deck drainage | | 10 | 0.00 | |
| Maintenand | ce Needs | | | | | | | |
| 01 | Lift and Swing Bridge Maintenance | | 07 | Repairs to Structural Steel | | 13 | Erosion Control at Bridges | |
| 02 | Bridge Cleaning | | 08 | Repair of Bridge Concrete | | 14 | Concrete Sealing | |
| 03 | Bridge Handrail Maintenance | | | Repair of Bridge Timber | | 15 | Rout and Seal | |
| 04 | Painting Steel Bridge Structures | | | Bailey bridges - Maintenance | | 16 | Bridge Deck Drainage | |
| 05 06 | Bridge Deck Joint Repair Bridge Bearing Maintenance | | | Animal/Pest Control Bridge Surface Repair | | 17 | Other | |
| | , | | | | | | | |



Bridge Inspection Form

| Struct. ID | 03-03 B0380 | | | | | | | | |
|---|-------------------------|---|-----------------|----------|--------------------|---------------------|------------------------|------------------------------|-------------------|
| Field Inspection Informat | tion | | | | | | | | |
| Inspection Date | October 03, 2 | 016 | | | | Weather | | Cloudy | |
| Inspector | | | | | | Temperat | ure | 16 | |
| Others in Party | Shane McDad | le, Ritesh Pat | el, Jigish Naik | | | | | • | |
| Equipment Used | Camera, Hami | | | | | | | | |
| Access Equipment Used | Ladder | | Boat | | | Bucket ⁻ | Γruck Π | Hip Waders | ₁ |
| 7.00000 Equipment 0000 | | _ s Key ∏ | | Climbin | g Inspec | | _ | nder Bridge Inspection Unit | |
| Special Notes | 7.0000 | - · · · · · · · · · · · · · · · · · · · | | - | 9 | <u></u> | | nder Bridge mepeetion erit [| |
| Overall in good condition. Mair flagging. | ntenance needs ident | ified on the a | butment wall. S | Some ele | ements w | ere not ac | cessible due to | unavailability of rail | |
| Upcoming Inspections ar | nd Investigations | | | | | | | | |
| Inspection Type | | Due Date | | Pric | ority | | Comment | | |
| , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | | | | | $\neg \uparrow$ |
| Recommended Inspection | ns and Investigation | ons | | | | | | | |
| Recommended Inspection Typ | oe e | | Due Date | None | Priority Normal | , Urgent | Estimated Cost (\$) | Comments | |
| Material Condition Survey: | | | | | | | | | |
| Detailed Deck Condition Survey | | | | | | | | | |
| Non-destructive Delamination Su | rvey of Asphalt-Covered | Deck | | | | | | | |
| Concrete Substructure Condition | Survey | | | | | | | | |
| Detailed Coating Condition Surve | у | | | | | | | | |
| Detailed Timber Investigation | | | | | | | | | |
| Post-Tensioned Strand Investigat | ion | | | | | | | | \longrightarrow |
| Underwater Investigation | | | | _무 | _무 | <u> </u> | | | \longrightarrow |
| Fatigue Investigation | | | | | <u> </u> | 뮤 | - | | \longrightarrow |
| Seismic Investigation | | | | | | <u> </u> | | | \longrightarrow |
| Structure Evaluation Monitoring | | | | | | | | | \dashv |
| Monitoring of Deformations, Settle | ements and Movements | | | | | | | | $\neg \uparrow$ |
| Monitoring Crack Widths | | | | | | | | | $\neg \uparrow$ |
| Overall Structure Recom | mendations: | | | | | _ | | | |
| Work Category Non | e 🛚 | Minor Reh | ab 📗 | | М | ajor Rehal | · 🗆 | Replacement | |
| Timing None | = X | Urgent | | < 1 ye | ear 🔲 | | 1 - 5 year [| 6 - 10 year | 一 |
| Est. Total Cost | _ | <u> </u> | | | | | <u> </u> | • | |
| Comments | | | | | | | | | |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | | | |
|---|-------------------|--|----------------------|---------|-------|-------------------------------|---|-----------|---|-----------------------------|
| Element Data | 1 | | | | | | | | | |
| | | | | | | | Т | 1 | | |
| Group | Abutme | nts | | | | 3 | Length | N/A | 11.00 | (m) |
| Element | Abutme | nt walls | | | | | Width | | 0.00 | (m) |
| Span Num | | | | | | | Height | | 4.40 | (m) |
| Material | Cast-in- | -place concre | ete | | | | Count | | 2.00 | |
| Туре | Conver | ntional closed | t | | | _ | Quantity | | 96.800 | (Sq.m) |
| Env't | ı | Benign 🗌 | Mode | erate 🗌 | Sev | ere 🛛 | Not Inspected | | | |
| Location | East Si | de and West | Side | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Sq.m | 0.000 | 93.800 | 2.000 | 1.000 | | | | | |
| Comments | | | | | | | | | CR = | 5 |
| Narrow stained | l crack, w | et area, wide | cracks. | | | | | | | |
| Maintenance N | Needs | | | | | Need | Timing | | | |
| 8-Repair of B | ridge Cor | ncrete | | | | 2 Yea | = | | | |
| Performance D | eficienci | es | | | | | | | | |
| 0-None | | | | | | | | | | |
| Recommended | d Work | | | 0-4 | | | | | | |
| | | | | Catego | ry | Timing | Quantity U | Init Cost | Total C | ost (\$) |
| | | | | Minor R | | Timing 1 - 5 year | Quantity U 0.000 | Init Cost | | ost (\$) |
| | | | | | | _ | _ | Init Cost | | |
| Group | Abutme | nts | | | | _ | 0.000 | Init Cost | | |
| Group Element | Abutme Ballast | | | | | 1 - 5 year | 0.000 | | 5 | 1 |
| | | | | | | 1 - 5 year | 0.000 Length | | 11.00 | (m) |
| Element | Ballast | | ete | | | 1 - 5 year | 0.000 Length Width | | 11.00 | (m) (m) |
| Span Num | Ballast | walls | ete | | | 1 - 5 year | 0.000 Length Width Height | | 11.00 0.00 1.40 | (m) (m) (m) |
| Element Span Num Material | Ballast v | walls -place concre | | | dehab | 1 - 5 year | 0.000 Length Width Height Count | | 11.00 0.00 1.40 2.00 | (m) (m) (m) |
| Span Num Material Type | Ballast Cast-in- | walls -place concre N/A | Mode | Minor R | dehab | 1 - 5 year 5 | 0.000 Length Width Height Count Quantity | | 11.00 0.00 1.40 2.00 | (m) (m) (m) |
| Span Num Material Type Env't | Ballast Cast-in- | walls -place concre N/A Benign X | Mode | Minor R | dehab | 1 - 5 year 5 | 0.000 Length Width Height Count Quantity | N/A | 11.00 0.00 1.40 2.00 | (m) (m) (m) (sq.m) |
| Span Num Material Type Env't Location | Cast-in- | walls -place concre N/A Benign X de and West | Mode : Side | Minor R | Sev | 1 - 5 year 5 ere Description | 0.000 Length Width Height Count Quantity Not Inspected | N/A | 11.00 0.00 1.40 2.00 30.800 | (m) (m) (m) (sq.m) |
| Span Num Material Type Env't Location Condition | Cast-in- | walls -place concre N/A Benign X de and West Excellent | Mode Side Good | Minor R | Sev | 1 - 5 year 5 ere Description | 0.000 Length Width Height Count Quantity Not Inspected | N/A | 11.00 0.00 1.40 2.00 30.800 | (m) (m) (m) (Sq.m) |
| Span Num Material Type Env't Location Condition Data | Cast-in- | walls -place concre N/A Benign X de and West Excellent | Mode Side Good | Minor R | Sev | 1 - 5 year 5 ere Description | 0.000 Length Width Height Count Quantity Not Inspected | N/A | 11.00 0.00 1.40 2.00 30.800 | (m) (m) (m) (Sq.m) |
| Span Num Material Type Env't Location Condition Data | Cast-in- | walls -place concre N/A Benign X de and West Excellent | Mode Side Good | Minor R | Sev | 1 - 5 year 5 ere Description | 0.000 Length Width Height Count Quantity Not Inspected | N/A | 11.00 0.00 1.40 2.00 30.800 | (m) (m) (m) (Sq.m) |
| Span Num Material Type Env't Location Condition Data | Cast-in- | walls -place concre N/A Benign X de and West Excellent 0.000 | Mode Side Good | Minor R | Sev | 1 - 5 year 5 ere Description | 0.000 Length Width Height Count Quantity Not Inspected | N/A | 11.00 0.00 1.40 2.00 30.800 | (m) (m) (m) (Sq.m) |
| Element Span Num Material Type Env't Location Condition Data Comments | Cast-in- | walls -place concre N/A Benign X de and West Excellent 0.000 | Mode Side Good | Minor R | Sev | 1 - 5 year 5 ere Description | 0.000 Length Width Height Count Quantity Not Inspected | N/A | 11.00 0.00 1.40 2.00 30.800 | (m) (m) (m) (Sq.m) |
| Element Span Num Material Type Env't Location Condition Data Comments | Cast-in- | walls -place concre N/A Benign X de and West Excellent 0.000 | Mode Side Good | Minor R | Sev | 1 - 5 year 5 ere Description | 0.000 Length Width Height Count Quantity Not Inspected | N/A | 11.00 0.00 1.40 2.00 30.800 | (m) (m) (m) (Sq.m) |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | | | |
|---------------|-----------|---------------|---------|---------|-------|-------------|-----------------------|----------|---------|--------|
| Element Data | 1 | | | | | | | | | |
| | | | | | | | T | | | |
| Group | Abutme | | | | | 4 | _ <u> </u> | N/A | 0.00 | (m) |
| Element | Bearing | js | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | _ | Count | | 4.00 | |
| Туре | Other | | | | | | Quantity | <u> </u> | 4.000 | (Each) |
| Env't | | Benign X | Mode | erate 🗌 | Sev | ere 🗌 | Not Inspected | | | |
| Location | Top of | Abutments | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data ——— | Each | 0.000 | 4.000 | 0.000 | 0.000 | | | | | |
| Performance D | Deficienc | ies | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 3 |
| Group | Abutme | ents | | | | 6 | Length | | 5.60 | (m) |
| Element | Wingwa | alls | | | | • | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | _ | Height | | 4.00 | (m) |
| Material | Cast-in | -place concre | ete | | | | Count | | 4.00 | |
| Туре | Reinfo | rced concrete | ; | | | | Quantity | | 89.600 | (Sq.m) |
| Env't | | Benign 🔲 | Mode | erate 🛛 | Sev | ere 🗌 | Not Inspected | | | |
| Location | | adrants | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Sq.m | 0.000 | 89.600 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Narrow map cr | acking. | | | | | | | | | |
| Performance D |)eficienc | ies | | | | | | | | |
| 0-None | | - | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | | | |
|-------------------|--------------|-----------------|----------------|-----------------|---------------|-------------|-----------------------|-----------------|---------|---------|
| Element Data | ı | | | | | | | | | |
| | | | | | | | | 1 | | |
| Group | | nents, Signs, a | nd Utilities | | | 15 | Length | N/A | 0.00 | (m) |
| Element | Signs | | | | | _ | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | N/A | 2.00 | |
| Туре | | N/A | | | | | Quantity | <u> </u> | 2.000 | (Each) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | North a | and South Sid | des | ī | T | Description | | 1 | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Each | 0.000 | 2.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Minor collision | damage | to sign walkwa | y noted. | | | | | | | |
| | | | | | | | | | | |
| Performance D | eticienc | ies | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 5 |
| Croun | Attachn | nents, Signs, a | nd I Itilities | | | 1/ | Length | N/A | 0.00 | (122) |
| Group Element | Utilities | | ind Othlics | | | '- | Width | N/A | | , , |
| | | | | | | _ | | N/A | 0.00 | (m) |
| Span Num | | N/A | | | | | Height Count | N/A | 1.00 | (m) |
| Material | | | | | | | Quantity | IN/A | | (Each) |
| Туре | | N/A | Mode | erate 🗍 | Sove | ere 🗌 | • | $\vdash \vdash$ | 1.000 | (Lacii) |
| Env't | | Benign | IVIOUE | erate \square | Seve | Description | Not Inspected | | | |
| Location | North S | 1 | Cood | Fain | Deer | · · | Perform. Deficiencies | Mainten | anaa Na | odo |
| Condition Data | Unit Each | Excellent 0.000 | Good 1.000 | Fair 0.000 | Poor 0.000 | V. Poor | Perform. Deliciencies | Iviainten | ance ne | eus |
| | Eacii | 0.000 | 1.000 | 0.000 | 0.000 | | | 1 | | |
| Comments | | | | | | | | | CR = | 1 |
| Light corrosion | | | | | | | | | | |
| Performance D |)eficienc | ies | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 6 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | |
|-------------------|-------------|--------------------|-----------------|---------------|---------------|-------------|-----------------------|-------------------|
| Element Data | ì | | | | | | | |
| - | - | | | | | | I | |
| Group | Beams/ | | | | | 2 | Length | 9.30 (m) |
| Element | Floor B | eams ———— | | | | _ | Width | 0.25 (m) |
| Span Num | | | | | | | Height | 0.60 (m) |
| Material | Steel | | | | | | Count | 25.00 |
| Туре | I type | | | | | | Quantity | 453.375 (Sq.m |
| Env't | | Benign X | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | |
| Location | | en Girders | | | | Description | | |
| Condition Data | Unit | Excellent 0.000 | Good 453.375 | Fair 0.000 | Poor 0.000 | V. Poor | Perform. Deficiencies | Maintenance Needs |
| | Sq.m | 0.000 | 400.070 | 0.000 | 0.000 | | | |
| Comments | | | | | | | | CR = 1 |
| Light corrosion | 1. | | | | | | | |
| Performance I | Deficienci | ies | | | | | | |
| 0-None | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Group | Beams/ | MLE's | | | | 1 | Length | 23.00 (m) |
| Element | Girders | | | | | , | Width | 0.45 (m) |
| Span Num | | | | | | | Height | 2.50 (m) |
| Material | Steel | | | | | | Count | 2.00 |
| Туре | I type | | | | | | Quantity | 292.100 (Sq.m |
| Env't | | Benign X | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | |
| Location | All | | | | | Description | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenance Needs |
| Data | Sq.m | 0.000 | 291.100 | 1.000 | 0.000 | | | <u> </u> |
| Comments | | | | | | | | CR = 1 |
| Light corrosion | ı, minor ir | npact damage | on bottom fla | nge over NBL | | | | |
| Performance I | Deficienci | ies | | | | | | |
| 0-None | | - | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | | | |
|-----------------|------------|---------------|---------|---------|-------|-------------|-----------------------|---------|---------|--------|
| Element Data | 1 | | | | | | | | | |
| | | | | | | | | | | |
| Group | Beams/ | | | | | 12 | Length | | 0.60 | (m) |
| Element | Stringer | rs | | | | | Width | | 0.10 | (m) |
| Span Num | | | | | | Height | | 0.50 | (m) | |
| Material | Steel | | | | | | Count | | 48.00 | |
| Туре | I type | | | | | | Quantity | | 48.000 | (Each) |
| Env't | I | Benign X | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | On Floo | or Beams | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainter | ance Ne | eds |
| Data ——— | Each | 0.000 | 48.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Light corrosion | - | | | | | | | | | |
| | . | | | | | | | | | |
| Performance D |)eficienci | es | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 9 |
| | | | | | | | I | l | | |
| Group | Coating | | | | | 10 | Length | N/A | 0.00 | · , |
| Element | Structur | ral Steei | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | N/A | 0.00 | |
| Туре | | ad primer/alk | | | | | Quantity | | 760.000 | (Sq.m) |
| Env't | | Benign _ | Mode | erate 🗌 | Seve | ere 🛛 | Not Inspected | | | |
| Location | Girders | S | | | 1 | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Sq.m | 0.000 | 490.002 | 269.998 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Breakdown of | coating n | oted. | | | | | | | | |
| | | | | | | | | | | |
| Performance D |)eficienci | es | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 4.0 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | | | |
|-----------------|------------|---------------|---------|---------|-------|-------------|-----------------------|----------|---------|--------|
| Element Data | l | | | | | | | | | |
| | | | | | | | | | | |
| Group | Decks | | | | | 11 | Length | | 23.10 | (m) |
| Element | Soffit - 7 | Thick Slab | | | | | Width | <u> </u> | 9.30 | (m) |
| Span Num | | | | Height | N/A | 0.00 | (m) | | | |
| Material | Cast-in- | -place concre | ete | | | _ | Count | N/A | 1.00 | |
| Туре | | N/A | | | | | Quantity | 2 | 214.830 | (Sq.m) |
| Env't | E | Benign X | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | Unders | ide of Deck | | _ | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Sq.m | 0.000 | 209.830 | 5.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Light to modera | ate corros | sion. | | | | | | | | |
| Performance D | aficianci | | | | | | | | | |
| 0-None | Jencienci | es | | | | | | | | |
| 0 1101.5 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 11 |
| Group | Embank | ments & Strea | ams | | | 7 | Length | N/A | 0.00 | (m) |
| Element | Embank | | | | | • | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | _ | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | N/A | 4.00 | |
| Туре | | N/A | | | | | Quantity | | 4.000 | (Each) |
| Env't | i | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | All Qua | | | _ | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Each | 0.000 | 4.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Performance D | eficienci | es | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 12 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | | | |
|----------------|------------|--------------------------|-------------|---------|-------|-------------|-----------------------|----------|---------|--------|
| Element Data | 1 | | | | | | | | | |
| | | | | | | | <u> </u> | 1 | | |
| Group | | ments & Strea | ams | | | 8 | | N/A | 0.00 | (m) |
| Element | Slope p | rotection | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | N/A | 4.00 | |
| Туре | Vegetat | tion | | | | | Quantity | <u> </u> | 4.000 | (Each) |
| Env't | E | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | All Qua | drants | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data ——— | Each | 0.000 | 4.000 | 0.000 | 0.000 | | | | | |
| Performance D |)eficienci | es | | | | | | | | |
| Group | Foundat | tions | | | | 9 | Length | N/A | 0.00 | (m) |
| Element | | tions tion (below gro | ound level) | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | , | | | - | Height | N/A | 0.00 | (m) |
| Material | Unknov | vn | | | | | Count | N/A | 0.00 | () |
| Туре | Unknov | vn | | | | | Quantity | | 1.000 | (Sq.m) |
| Env't | | Benign 🔲 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | \Box | | |
| Location | | Abutments | | | | Description | • | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Sq.m | 0.000 | 1.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Limited inspec | tion. | | | | | | | | | |
| Performance D |)eficienci | es | | | | | | | | 14 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 3 B0380 | | | | | | |
|--------------------------|---|--------------|---------|---------|----------|-------------|-----------------------|----------------|-----|
| Element Data | | | | | | | | | |
| | | | | | | | | | |
| Group | Sidewal | ks/curbs | | | | 13 | Length | 21.30 | (m) |
| Element | Sidewalk and medians | | | | | Width | 0.78 | (m) | |
| Span Num | | | | | | | Height | 0.00 | (m) |
| Material | Cast-in-place concrete | | | | | | Count | 2.00 | |
| Туре | N/A | | | | Quantity | 33.228 | (Sq.m) | | |
| Env't | I | Benign 🛚 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | X | |
| Location | North S | Side and Sou | th Side | | | Description | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenance Ne | eds |
| Data | Sq.m | 0.000 | 31.228 | 1.000 | 1.000 | | | | |
| | Comments Trainmen's walk in Northeast quadrant is not welded to the support bracket. Condition quantities and comments carried forward from previous inspection. | | | | | | | 5 | |
| Maintenance N | leeds | | | | | Need | Timing | | |
| 17-Other | 7-Other 2 Years | | | | | | | | |
| Performance Deficiencies | | | | | | | | | |
| 0-None | | | | | | | | | 15 |



Bridge Inspection Form

Struct. ID 03-03 B0380

| Recommended Work (Element Level) | | | | | | | | |
|--|---------|------|---------------|----------|------------|--------------------|-----------|--|
| | | | | | | | Estimated | |
| <u> </u> | <u></u> | None | <u>Urgent</u> | < 1 year | 1 - 5 year | <u>6 - 10 year</u> | Cost (\$) | |
| Abutments / Abutment walls / Conventional closed | | | | | Х | | 5,000 | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | Total Cost | 5,000 | |

| Recommended Work (Structure Level) | | | | | |
|--------------------------------------|-----------------|----------------------|--|--|--|
| Associated Work | <u>Comments</u> | Estimated Cost (\$) | | | |
| Approaches | | | | | |
| Detours | | | | | |
| Other | | | | | |
| Traffic Control | | | | | |
| Utilities | | | | | |
| | Tota | I Cost | | | |
| | Grand Total | Cost: \$5,000 | | | |



Bridge Inspection Form

Struct. ID

03-03 B0380



Description

South elevation, general photo

Elem Grp/Class

Elem Type

Sub Element

Material Type

Locator

Defect Descript1

Defect Descript2

Defect

Other

File Name

DSCN7303.JPG



Description

Southeast wingwall

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2
Defect
Other

Abutments/Abutment walls

Conventional closed

Cast-in-place concrete

South

File Name

DSCN7304.JPG



Bridge Inspection Form

Struct. ID

03-03 B0380



Description

West abutment, narrow map crack/stained crack

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2
Defect
Other

Abutments/Abutment walls
Conventional closed

Cast-in-place concrete

West

File Name DSCN7306.JPG



Description

West abutment, narrow crack

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2
Defect

Other

Abutments/Abutment walls

Cast-in-place concrete

Conventional closed

West

File Name DSCN7308.JPG



Bridge Inspection Form

Struct. ID

03-03 B0380



Description

General photo

Elem Grp/Class **Elem Type** Sub Element

Material Type Locator

Defect Descript1

Defect Descript2

Defect Other

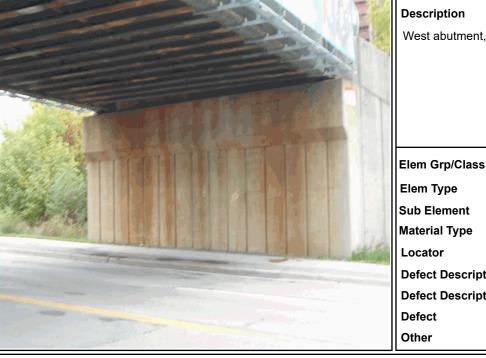
Beams/MLE's/Girders

I type

Steel

File Name

DSCN7310.JPG



Description

West abutment, general photo

Elem Type Sub Element Material Type

Locator **Defect Descript1 Defect Descript2**

Defect Other

Abutments/Abutment walls

Cast-in-place concrete

Conventional closed

West

File Name

DSCN7318.JPG

2017/1/20 16:07 RptInspection



Bridge Inspection Form

Struct. ID 03-03 B0380



Description

East abutment, wide crack

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect
Other

Abutments/Abutment walls
Conventional closed

Cast-in-place concrete
East
Poor condition

Crack

File Name DSCN7322.JPG



Description

South girder impact damage, northbound lane

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2
Defect
Other

File Name DSCN7327.JPG



Bridge Inspection Form

Struct. ID 03-03 B0380

Summary Action Report Structure 03-06 B0400 (MTO Site No. 037-1103-) **Rouge River Bridge**

Inspection Date 09/18/2014 mm/dd/yyyy **Condition Index Value (BCI)** 73.3 Next Biennial Inspection 09/18/2016 mm/dd/yyyy **Current Rep. Value**

Additional Investigations

| Investigation | Priority | Cost | Investigation | Priority | Cost |
|--|----------|------|---------------|----------|------|
| | | | | | |
| | | | | | |
| | | | | | |
| No additional investigations required. | | | | | |

Performance Deficiencies

No Performance Deficiencies

Maintenance Needs

| Element Group | Element | ement Maintenance Required | | Comment |
|---------------|-----------------|-----------------------------|--------|-----------------|
| Decks | Wearing Surface | Bridge Surface Repair | Urgent | Patch pot hole |
| Approaches | Wearing Surface | Bridge Surface Repair | Urgent | Fill pothole |
| Barriers | Railing Systems | Bridge Handrail Maintenance | 2 yr | Secure end-caps |

Repair/Rehabilitation

| Element Group | Element | | Repair/Rel | nabilitation | Priority | Cost |
|--------------------------|-----------------------|------------|------------|--------------------------------|--------------|-----------|
| Decks | Wearing Surface | | Rehab | Seal cracks and patch pot hole | 1-5 yrs | \$5,000 |
| Approaches | Wearing Surface | | Rehab | Seal cracks | 1-5 yrs | \$5,000 |
| Sidewalks/curbs | Sidewalks/Medians | | Rehab | Patch repair | 6-10 yrs | \$5,000 |
| Barriers | Barrier/Parapet Walls | Interior | Rehab | Patch repair | 6-10 yrs | \$5,000 |
| Joints | Concrete End Dams | | Rehab | Patch repair | 1-5 yrs | \$5,000 |
| Joints | Seals/Sealants | | Rehab | Replace expansion joint seals | 1-5 yrs | \$30,000 |
| Abutments | Wingwalls | | Rehab | Patch repair | 6-10 yrs | \$2,000 |
| Abutments | Abutment Walls | | Rehab | Seal cracks and patch repair | 6-10 yrs | \$2,000 |
| Abutments | Ballast Walls | | Rehab | Patch repair | 6-10 yrs | \$1,000 |
| Beams/MLE's | Girders | End | Rehab | Patch repair | 1-5 yrs | \$35,000 |
| Beams/MLE's | Girders | Middle | Rehab | Patch repair | 1-5 yrs | \$5,000 |
| Embankments & Streams | Slope Protection | | Rehab | Restore slope protection | 1-5 yrs | \$5,000 |
| Approaches | Approach Guiderail | Buried En | Rehab | Upgrade guiderail end treatmen | its 1-5 yrs | \$30,000 |
| Approaches | Approach Guiderail | Terminal | Rehab | Upgrade end treatments | 1-5 yrs | \$30,000 |
| | | | | Total Repair/Rehabilit | ation Cost | \$165,000 |
| Region of York | | 100 % \$22 | 8,000.00 | Total Associate | ed Work Cost | \$63,000 |

Overall Comments



\$0.00

0 %

\$228,000

Total Cost

\$3,193,950

- 1 5 years: Seal cracks in asphalt concrete end dams, girders, replace expansion joint seals, upgrade guiderail end treatments.
- 6 10 years: Repair sidewalk, concrete end post, wingwalls, abutment and ballast wall.



Municipal Structure Inspection Form

| Structure Number: | 03-06 B0400 |
|-------------------|-------------|
|-------------------|-------------|

| Inventory Data | | | | | | | |
|-----------------------|--|---|---|--|--|--|--|
| Structure Name | Rouge River Bridge | Hwy No. | 3 Key Photo | | | | |
| Cross. Type Over | ✓ Road ☐ Rail ☐ Ped ☐ Nav. \ | ✓ Road ☐ Rail ☐ Ped ☐ Nav. Water ☐ Non-Nav. Wat ☐ Other | | | | | |
| Cross. Type Under | Road Rail Ped Nav. \ | Road Rail Ped Nav. Water Non-Nav. Wat ✔ Other | | | | | |
| Road Name | Kennedy Road | | | | | | |
| Structure Location | 0.4 km North of 7-Regional Road 7 | | | | | | |
| Latitude | 43.86523 Longitude -79.30437 | Cur. Rep.Value \$3 | 193,950 | | | | |
| Owner(s)/ | Region of York | 100 % | ** | | | | |
| % Share | | 0 % Heritage Status | Not Considered for Designation | | | | |
| MTO Region | Central | Road Side Env. | Urban | | | | |
| MTO District | Central | Road Class | Arterial | | | | |
| Old County | York | Lane Type | | | | | |
| Geographic Twp. | | Posted Speed | 60 No. of Lanes 4 | | | | |
| Structure Type | Box Beams or Girders | AADT | 49660 Pct. Trucks 4 | | | | |
| Structure Material | Prestressed Precast Concrete Inspection Route Sequence | | | | | | |
| Articulation | Simply Supported Interchange Number | | | | | | |
| Total Deck Length | 31.7 m Road Width 17 | .3 m Interchange Stru | cture Number | | | | |
| Overall Width | 21 m Vert. Clear. | 0 m Detour Length | 0 km Skew Angle 0 ° | | | | |
| Total Deck Area | 665.70 m ² No. of Spans | 1 Fill on Structure | 0 m Struct. Dir. North/South | | | | |
| Special Routes | ☐ Transit ✓ School ☐ Truck ☐ B | icycle Insp. Duration | 2 hr | | | | |
| Spans | | | structure and calculated using benchmark costs. Capital equirements for widening or lengthening of the structure. | | | | |
| Span Name | Span Length S | oan Name | Span Length | | | | |
| Span 1 | 30.0 m | | | | | | |
| Historical Data | | | | | | | |
| Year Built | 1981 yyyy Y | ear of Last Major Rehab | уууу | | | | |
| Last OSIM Inspectio | n 09/24/2012 mm/dd/yyyy C | ontract No. When Built | | | | | |
| Last Enhanced OSIN | mm/dd/yyyy L | ast Evaluation | mm/dd/yyyy | | | | |
| Last Enhanced Acce | mm/dd/yyyy (| urrent Load Limit | t t | | | | |
| Last Underwater Ins | p. mm/dd/yyyy L | oad Limit By-Law No. | mm/dd/yyyy | | | | |
| Last Condition Surv | ey mm/dd/yyyy E | By-Law Expiry Date | mm/dd/yyyy | | | | |

Rehab History

Region of York **Municipal Structure Inspection Form Structure Number:** 03-06 B0400 **Field Inspection Information:** 73.3 ✓ OSIM ☐ Enhanced OSIM BCI Inspection Date 09/18/2014 mm/dd/yyyy ■ Multi Day Inspection Inspector T. Fediw Eng. Responsible D. L. Baxter, P. Eng. Others in Party P. Adams Access Equip. Lift Ladder Boat Bridge Master Other Other Equip. Camera, Hammer, Other Hand Tools Clear Weather 10 °C **Temperature Additional Investigations Required:** Investigation **Priority Estimated Cost** Normal None Urgent **Detailed Deck Condition Survey** \$0 Delamination Survey of Asphalt-Covered Deck \$0 Concrete Substructure Condition Survey \$0 **Detailed Coating Condition Survey** \$0 **Detailed Timber Investigation** \$0 Post-Tensioned Strand Investigation \$0 **Underwater Investigation** \$0 Fatigue Investigation \$0 Seismic Investigation \$0 Structure Evaluation \$0 Monitoring of Deformations, Movements and Settlements \$0 Monitoring of Crack Widths \$0 **Total Cost** \$0 **Investigation Notes** Detailed deck condition survey in 2012. **Overall Structure Notes:** Replace Remove None ✓ Rehab **Recommended Work on Structure** ■ None Now ✓ 1 to 5 years 6 to 10 years **Timing of Recommended Work** Overall 1 - 5 years: Seal cracks in asphalt concrete end dams, girders, replace expansion joint seals, upgrade guiderail end Comments treatments. 6 - 10 years: Repair sidewalk, concrete end post, wingwalls, abutment and ballast wall. **BCI Change** Justification



Next Inspection

09/18/2016 mm/dd/yyyy

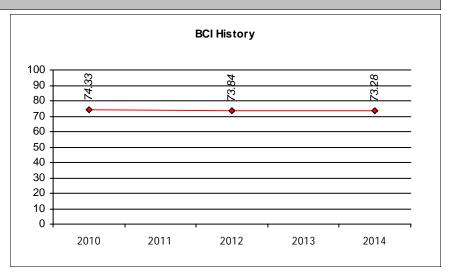
Estimated Load Limit

Structure Number:

03-06 B0400

BCI History

| Insp. Date | BCI | Inspector |
|------------|-------|-----------|
| 11-Nov-10 | 74.33 | J.M. Youk |
| 24-Sep-12 | 73.84 | D. Kelly |
| 18-Sep-14 | 73.28 | T. Fediw |



All BCI values are based on the MTO BCI methodology published in April 2008. As a result, BCI values for 2007 and earlier are approximate only, with potential discrepancies resulting from changes (over time) in the way quantities for certain elements are calculated.

Standard Codes

Suspected Performance Deficiencies

- 00
- 01 Load carrying capacity
- Excessive deformations (deflections/rotations) 02
- 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
- 14

12

- Slippery surfaces Flooding/channel blockage 13
- Undermining of foundation Unstable embankments 15
- 16 Other

Maintenance Needs

- Lift and Swing Bridge Maintenance
- Bridge Cleaning
- Bridge Handrail Maintenance
- Painting Steel Bridge Structures
- Bridge Deck Joint Repair
- Bridge Bearing Maintenance

- Repair to Structural Steel Repair of Bridge Concrete 07
- 08
- Repair of Bridge Timber 09 10 Bailey Bridges - Maintenance
- 11 Animal/Pest Control
- 12 Bridge Surface Repair
- **Erosion Control at Bridges** 13
- Concrete Sealing 14
- 15 Rout and Seal
- 16 Bridge deck Drainage
- Scaling (Loose Concrete or ACR Steel) 17
- 18

Structure Number:

| Element Data | | | | | | | |
|---|--------------------|------------------------|---------------|-------------|--------------------|-------------------|--------|
| Decks - Wearing | Surface | | | | | | |
| Element Group | Decks | | | 1 | Length | 31.70 Width | 17.30 |
| Element Name | Wearing Surfac | e | | | Height | 0.00 Count | 0.00 |
| Location | Above Deck | J L | | | | Total Quantity | 548.41 |
| Material | Asphalt | | | | Limite | d Inspection | |
| Element Type | | | | | Environm | ent | |
| Protection System | None | | | | ☐ Benigr | | |
| Condition Data | Units Exc | ell. Good | Fair | Poor | ☐ Moder | | |
| | sq. m | 0.00 538.41 | 6.00 | 4.00 | ✓ Severe | e | |
| Comments Pothole, narrow to wide | cracks spaled c | racks light to medium | ravelling | | | | |
| Follole, narrow to wide | e cracks, sealed c | racks, light to medium | raveiling. | | | | |
| | | | | | | | |
| | | | | | | | |
| Performance Deficien | cies | Maintenance Needs | 3 | Priority | Comments | | |
| None | | Bridge Surface Repa | air | Urgent | Patch pot hol | е | |
| | | | _ | | | | |
| Rehab/Repair Recomm | nendations | | ost Commen | | | | |
| Rehab | | 1-5 yrs \$5 | 5,000 Seal cr | acks and pa | atch pot hole | | |
| Decks - Deck Top | | | | | | 04 70 141 141 | 04.00 |
| Element Group | Decks | | | | Length | 31.70 Width | 21.00 |
| Element Name | Deck Top | | | | Height | 0.00 Count | 0.00 |
| Location | Below Roadway | | | | | Total Quantity | 665.70 |
| Material | Cast-in-place co | oncrete | | | Limited Inspection | | |
| Element Type | | | | | Environm | ent | |
| Protection System | None | | | | Benigr | ı | |
| Condition Data | Units Exc | | Fair | Poor | ✓ Moder | ate | |
| Comments | sq. m | 0.00 653.70 | 11.00 | 1.00 | Severe | e | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Performance Deficien | cies | Maintenance Needs | <u> </u> | Priority | Comments | | |
| None | | | | | | | |
| | | | | | | | |
| Rehab/Repair Recommendations Priority Cost Comments | | | | | | | |
| | | | | | | | |
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Region of York **Municipal Structure Inspection Form Structure Number:** 03-06 B0400 **Approaches - Wearing Surface Element Group** Length 6.00 Width 17.30 Approaches 2.00 0.00 **Count Element Name** Wearing Surface Height North and South **Total Quantity** 208.00 Location ☐ Limited Inspection Material Asphalt **Element Type Environment Protection System** None Benign Moderate **Condition Data** Units Excell. Good Fair Poor 204.00 2.00 0.00 2.00 sq. m ✓ Severe Comments Narrow to wide cracks, pothole, narrow random crack. **Performance Deficiencies Maintenance Needs** Priority **Comments** None Bridge Surface Repair Urgent Fill pothole Rehab/Repair Recommendations **Priority** Cost Comments Rehab 1-5 yrs \$5,000 Seal cracks Approaches - Approach Slabs 6.00 Width 17.30 **Element Group** Approaches Length 2.00 **Element Name** Approach Slabs Height 0.00 **Count Total Quantity** 207.60 Location North and South ☐ Limited Inspection Material Cast-in-place concrete **Element Type Environment Protection System** None Benign **Condition Data** Units Excell. Good Fair Poor ✓ Moderate sq. m 0.00 2.00 1.00 204.60 Severe Comments **Performance Deficiencies Maintenance Needs** Priority Comments None Rehab/Repair Recommendations **Priority** Cost Comments



Structure Number:

| Sidewalks/curbs · | - Sidewalks/Medians | | | | |
|---|---|--|--|--|--|
| Element Group | Sidewalks/curbs Length 43.70 Width 1.85 | | | | |
| Element Name | Sidewalks/Medians Height 0.00 Count 2.00 | | | | |
| Location | East and West Total Quantity 161.69 | | | | |
| Material | Cast-in-place concrete Limited Inspection | | | | |
| Element Type | Environment | | | | |
| Protection System | None Benign | | | | |
| Condition Data | Units Excell. Good Fair Poor Moderate | | | | |
| Comments | sq. m 0.00 157.69 3.00 1.00 ✓ Severe | | | | |
| Abrasions, severe spal | II, asphalt patches, narrow to medium cracks. | | | | |
| | | | | | |
| | | | | | |
| Performance Deficien | cies Maintenance Needs Priority Comments | | | | |
| None | | | | | |
| D D | | | | | |
| Rehab/Repair Recom | * | | | | |
| , · · · · · · · · · · · · · · · · · · · | | | | | |
| Barriers - Railing | | | | | |
| Element Group | Barriers Length 36.80 Width 0.00 | | | | |
| Element Name | Railing Systems Height 0.00 Count 2.00 | | | | |
| Location | East and West Total Quantity 73.60 | | | | |
| Material | Aluminum Limited Inspection | | | | |
| Element Type | 4 Rail Metal Railing - Aluminum Environment | | | | |
| Protection System | None Benign | | | | |
| Condition Data | Units Excell. Good Fair Poor Moderate | | | | |
| Comments | sq. m 0.00 67.60 5.00 1.00 ✓ Severe | | | | |
| Abrasion, unsecured and missing end-caps. | | | | | |
| | | | | | |
| | | | | | |
| Performance Deficien | cies Maintenance Needs Priority Comments | | | | |
| None | Bridge Handrail Maintenance 2 yr Secure end-caps | | | | |
| | | | | | |
| Rehab/Repair Recomi | mendations Priority Cost Comments | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



Region of York **Municipal Structure Inspection Form Structure Number:** 03-06 B0400 **Barriers - Posts Element Group Barriers** Length 0.00 Width 0.00 34.00 Posts 0.00 | Count **Element Name** Height East and West **Total Quantity** 34.00 Location ☐ Limited Inspection Material Aluminum **Element Type Environment Protection System** None Benign Moderate **Condition Data** Units Excell. Good Fair Poor 0.00 Each 0.00 34.00 0.00 ✓ Severe Comments **Performance Deficiencies Maintenance Needs** Priority Comments None Comments Rehab/Repair Recommendations **Priority** Cost **Barriers - Barrier/Parapet Walls** 1.20 Width 0.00 **Element Group Barriers** Length 4.00 **Element Name** Barrier/Parapet Walls Interior Height 1.50 **Count Total Quantity** 7.20 Location **End Posts** ☐ Limited Inspection Material Cast-in-place concrete **Element Type Environment Protection System** None Benign **Condition Data** Units Excell. Good Fair Poor Moderate 0.00 5.20 1.00 1.00 sq. m ✓ Severe Comments Spall and delamination at North end posts. **Performance Deficiencies Maintenance Needs** Priority Comments None Rehab/Repair Recommendations **Priority** Cost Comments Rehab 6-10 yrs \$5,000 Patch repair



Structure Number: 03-06 B0400

| Barriers - Barrier | /Parapet Wall | s | | | | | |
|---|--|----------------------|-----------------|----------|----------|-------------------|-------|
| Element Group | Barriers | | | | Length | 1.20 Width | 0.00 |
| Element Name | Barrier/Parapet | Walls | Exterior | | Height | 1.15 Count | 4.00 |
| Location | End Posts | | | | | Total Quantity | 5.52 |
| Material | Cast-in-place co | oncrete | | | Limited | d Inspection | |
| Element Type | | | | | Environm | ent | |
| Protection System | None | | | | Benigr | 1 | |
| Condition Data | Units Exc | ell. Good | Fair | Poor | ✓ Moder | ate | |
| Comments | sq. m | 0.00 5.52 | 0.00 | 0.00 | Severe | e | |
| Performance Deficien | Performance Deficiencies Maintenance Needs Priority Comments | | | | | | |
| None | | | | | | | |
| Rehab/Repair Recomi | mendations | Priority | Cost Comment | ts | | | |
| Joints - Concrete | End Dams | | | | | | |
| Element Group | Joints | | | | Length | 17.30 Width | 0.36 |
| Element Name | Concrete End Dams | | | | Height | 0.00 Count | 4.00 |
| Location | North and South | | | | | Total Quantity | 24.91 |
| Material | Cast-in-place concrete | | | | Limited | d Inspection | |
| Element Type | | | | | Environm | ent | |
| Protection System | None | | | | Benigr | 1 | |
| Condition Data | Units Exc | ell. Good | Fair | Poor | ☐ Moder | ate | |
| Comments | sq. m | 0.00 19.91 | 3.00 | 2.00 | ✓ Severe | e | |
| Severe spall, medium t | to wide cracks, de | laminations, asphalt | patches. | | | | |
| | | | | | | | |
| Performance Deficien | cies | Maintenance Nee | ds | Priority | Comments | | |
| None | | | | | | | |
| Rehab/Repair Recommendations Priority Cost Comments | | | ts | | | | |
| Rehab | | 1-5 yrs | \$5,000 Patch r | epair | | | |
| | | | | | | | |



Region of York **Municipal Structure Inspection Form Structure Number:** 03-06 B0400 Joints - Armouring/Retaining Devices **Element Group Joints** Length 17.30 Width 0.09 4.00 **Element Name** Armouring/Retaining Devices Height 0.00 **Count** North and South **Total Quantity** 69.20 Location ☐ Limited Inspection Material Steel **Element Type Environment Protection System** None Benign **Condition Data** Moderate Units Excell. Good Fair Poor 0.00 m 0.00 0.00 69.20 ✓ Severe Comments Scrapes. **Performance Deficiencies Maintenance Needs** Priority Comments None Rehab/Repair Recommendations **Priority** Cost Comments Joints - Seals/Sealants 17.30 Width **Joints** 0.00 **Element Group** Length 2.00 **Element Name** Seals/Sealants Height 0.00 **Count Total Quantity** 2.00 Location North and South ☐ Limited Inspection Material Other **Element Type** Compression Seal **Environment Protection System** None Benign **Condition Data** Units Excell. Good Fair Poor Moderate Each 0.00 0.00 0.00 2.00 ✓ Severe Comments Gaps: North = 38mm; South = 15mm. Both seals are cracked and leaking. **Performance Deficiencies Maintenance Needs** Priority Comments None Rehab/Repair Recommendations **Priority** Cost Comments Rehab 1-5 yrs \$30,000 Replace expansion joint seals



Region of York **Municipal Structure Inspection Form Structure Number:** 03-06 B0400 **Abutments - Wingwalls Element Group Abutments** Length 4.60 Width 0.00 4.00 Wingwalls Height 1.40 **Count Element Name Total Quantity** 25.76 Location All Quadrants ☐ Limited Inspection Material Cast-in-place concrete **Element Type Environment Protection System** None Benign ✓ Moderate **Condition Data** Units Excell. Good Fair Poor 22.76 1.00 0.00 2.00 sq. m Severe Comments Narrow stained crack, wet areas, efflorescence deposits, spall in Northwest quadrant. **Performance Deficiencies Maintenance Needs** Priority Comments None Rehab/Repair Recommendations **Priority** Cost Comments Rehab 6-10 yrs \$2,000 Patch repair **Abutments - Abutment Walls** 18.00 Width 0.00 **Element Group** Abutments Length 2.00 **Element Name Abutment Walls** Height 2.00 **Count Total Quantity** 72.00 Location North and South ☐ Limited Inspection Material Cast-in-place concrete **Element Type** Conventional Closed **Environment Protection System** None ✓ Benign **Condition Data** Units Excell. Good Fair Poor Moderate 0.00 70.00 1.00 1.00 sq. m Severe Comments Wide crack, and delamination on the North abutment. **Performance Deficiencies Maintenance Needs** Priority Comments



Region of York **Municipal Structure Inspection Form Structure Number:** 03-06 B0400 **Abutments - Bearings Element Group** Abutments Length 0.00 Width 0.00 28.00 **Element Name Bearings** Height 0.00 **Count** North Abutment **Total Quantity** 28.00 Location ☐ Limited Inspection Material Elastomeric Elastomeric pad **Element Type Environment Protection System** None Benign ✓ Moderate **Condition Data** Units Excell. Good Fair Poor 0.00 0.00 Each 28.00 0.00 Severe Comments **Performance Deficiencies Maintenance Needs** Priority Comments None Rehab/Repair Recommendations **Priority** Cost Comments **Abutments - Ballast Walls** 0.00 Abutments 18.00 Width **Element Group** Length 2.00 **Element Name Ballast Walls** Height 1.00 **Count Total Quantity** 36.00 Location North and South ☐ Limited Inspection Material Cast-in-place concrete **Element Type Environment Protection System** None Benign **Condition Data** Units Excell. Good Fair Poor ✓ Moderate 0.00 33.00 2.00 1.00 sq. m Severe Comments Stained areas, wet areas, spall in Northwest quadrant. **Performance Deficiencies Maintenance Needs** Priority Comments None Rehab/Repair Recommendations **Priority** Cost Comments Rehab 6-10 yrs \$1,000 Patch repair



Structure Number: 03-06 B0400

| Beams/MLE's - G | irders | | | | | | |
|-----------------------------|---|---------------|----------------|----------|----------|---------------------|------|
| Element Group | Beams/MLE's | | | | Length | 2.00 Width | 1.22 |
| Element Name | Girders | | End | | Height | 1.00 Count 2 | 8.00 |
| Location | Below Deck | | | | | Total Quantity 18 | 0.32 |
| Material | Precast concre | te | | | Limite | d Inspection | |
| Element Type | Box/Trapezoida | al | | | Environm | ent | |
| Protection System | None | | | | ☐ Benigr | n | |
| Condition Data | Units Exc | cell. Good | Fair | Poor | ✓ Moder | ate | |
| Comments | sq. m | 0.00 166. | 7.00 | 7.00 | Severe | 9 | |
| Spall of the North girde | | | - | | | | |
| Performance Deficien | cies | Maintenance N | leeds | Priority | Comments | | |
| None | | | | | | | |
| Rehab/Repair Recom | mendations | Priority | Cost Comme | nts | | | |
| Rehab | | 1-5 yrs | \$35,000 Patch | repair | | | |
| Beams/MLE's - G | irders | | | | | | |
| Element Group | Beams/MLE's | | | | Length | 26.00 Width | 1.27 |
| Element Name | Girders | | Middle | | Height | 1.00 Count 1 | 4.00 |
| Location | Below Deck Total Quantity 1190.28 | | | | 0.28 | | |
| Material | Precast concrete Limited Inspection | | | | | d Inspection | |
| Element Type | Box/Trapezoida | al | | | Environm | ent | |
| Protection System | None | | | | ✓ Benigr | n | |
| Condition Data | | cell. Good | | Poor | ☐ Moder | ate | |
| Comments | sq. m 0.00 1188.28 1.00 1.00 Severe | | | | | | |
| Small spall near South end. | | | | | | | |
| Performance Deficien | cies | Maintenance N | leeds | Priority | Comments | | |
| None | | | | | | | |
| Rehab/Repair Recom | mendations | Priority | Cost Comme | nts | | | |
| Rehab | | 1-5 yrs | \$5,000 Patch | repair | | | |
| | | | | | | | |



Municipal Structure Inspection Form Structure Number: 03-06 B0400

| Embankments & | Streams - Embankments | | | | | |
|----------------------|---|--|--|--|--|--|
| Element Group | Embankments & Streams Length 0.00 Width 0.00 | | | | | |
| Element Name | Embankments Height 0.00 Count 6.00 | | | | | |
| Location | All Quadrants, In Front of Abutments Total Quantity 6.00 | | | | | |
| Material | Other Limited Inspection | | | | | |
| Element Type | Environment | | | | | |
| Protection System | Benign | | | | | |
| Condition Data | Units Excell. Good Fair Poor Moderate | | | | | |
| Comments | Each 0.00 6.00 0.00 0.00 Severe | | | | | |
| | | | | | | |
| Performance Deficien | Maintenance Needs Priority Comments | | | | | |
| None | | | | | | |
| Rehab/Repair Recom | mendations Priority Cost Comments | | | | | |
| | | | | | | |
| Embankments & | Streams - Slope Protection | | | | | |
| Element Group | Embankments & Streams Length 0.00 Width 0.00 | | | | | |
| Element Name | Slope Protection Height 0.00 Count 4.00 | | | | | |
| Location | All Quadrants Total Quantity 4.00 | | | | | |
| Material | Vegetation Limited Inspection | | | | | |
| Element Type | Environment | | | | | |
| Protection System | None Benign | | | | | |
| Condition Data | Units Excell. Good Fair Poor Moderate | | | | | |
| Comments | Each 0.00 4.00 0.00 0.00 Severe | | | | | |
| Comments | | | | | | |
| Performance Deficien | Maintenance Needs Priority Comments | | | | | |
| None | | | | | | |
| Rehab/Repair Recom | mendations Priority Cost Comments | | | | | |
| | | | | | | |



Structure Number:

| Embankments & Streams - Slope Protection | | | | | | | | |
|---|-------------------|---------------------|----------------|---------------|------------|-------------|---------|-------|
| Element Group | Embankments & | & Streams | | | Length | 0.00 | Width | 0.00 |
| Element Name | Slope Protection | 1 | | | Height | 0.00 | Count | 2.00 |
| Location | In Front of Abut | ments | | | | Total Q | uantity | 2.00 |
| Material | Precast concret | е | | | ☐ Limite | ed Inspecti | on | |
| Element Type | Precast units | | | | Environn | nent | | |
| Protection System | None | | | | Benig | jn | | |
| Condition Data | Units Exc | ell. Good | Fair | Poor | ■ Mode | erate | | |
| Comments | Each | 0.00 2.00 | 0.00 | 0.00 | Seve | re | | |
| Missing blocks noted, g | gap between abuti | ment and slope prot | tection. | | | | | |
| | | | | | | | | |
| Performance Deficien | cies | Maintenance Ne | eds | Priority | Comments | | | |
| None | | | | | | | | |
| Rehab/Repair Recom | mendations | Priority | Cost Commen | ts | | | | |
| Rehab | | 1-5 yrs | \$5,000 Restor | e slope prote | ection | | | _ |
| Abutments - Bea | rings | | | | | | | |
| Element Group | Abutments | | | | Length | 0.00 | Width | 0.00 |
| Element Name | Bearings | | | | Height | 0.00 | Count | 28.00 |
| Location | South Abutment | | | | | Total Q | uantity | 28.00 |
| Material | Elastomeric | | | | Limite | ed Inspecti | on | |
| Element Type | Elastomeric pad | | | | Environn | nent | | |
| Protection System | None | | | | ☐ Benig | ın | | |
| Condition Data | Units Exc | | Fair | Poor | ✓ Moderate | | | |
| Comments | Each | 0.00 28.00 | 0.00 | 0.00 | Seve | re | | |
| | | | | | | | | |
| Performance Deficiencies Maintenance Needs Priority | | | | Priority | Comments | | | |
| None | | | | | | | | |
| Rehab/Repair Recommendations Priority Cost Comments | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Structure Number: 03-06 B0400

| Foundations - Foundations (below ground level) | | | | | | | |
|--|--|-------------------------------|---------------|-------------|-----------------|-------------------|------|
| Element Group | Foundations | | | | Length | 0.00 Width | 0.00 |
| Element Name | Foundations (be | elow ground level) | | | Height | 0.00 Count | 0.00 |
| Location | At Abutments | | | | | Total Quantity | 0.00 |
| Material | Unknown | | | | ✓ Limite | ed Inspection | |
| Element Type | | | | | Environm | nent | |
| Protection System | | | | | Benig | n | |
| Condition Data | Units Exc | cell. Good | Fair | Poor | Mode | rate | |
| Comments | | | | | Sever | e | |
| Limited inspection. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Performance Deficier None | icies | Maintenance Nee | ds | Priority | Comments | | |
| None | | | | | | | |
| Rehab/Repair Recom | mendations | Priority (| Cost Commen | ts | | | |
| | | | | | | | |
| Approaches - Ap | proach Guide | rail | | | | | |
| Element Group | Approaches | | | | Length | 0.00 Width | 0.00 |
| Element Name | Approach Guide | Approach Guiderail Buried End | | | | 0.00 Count | 2.00 |
| Location | Northeast and Southwest Quadrants | | | | | Total Quantity | 2.00 |
| Material | Steel | Steel | | | | ed Inspection | |
| Element Type | Steel Beam on | Wood Posts | | | Environm | nent | |
| Protection System | Hot dip galvaniz | ring | | | Benig | n | |
| Condition Data | Units Exc | cell. Good | Fair | Poor | Moderate | | |
| Comments | Each 0.00 2.00 0.00 0.00 | | | | ✓ Sever | e | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Performance Deficier | | Maintenance Nee | | Dulaultu | 0 | | |
| None Performance Denicier | icies | Maintenance Nee | us | Priority | Comments | | |
| . 13.113 | | | | | | | |
| Rehab/Repair Recom | mendations | Priority | Cost Commen | ts | | | |
| Rehab | | 1-5 yrs \$ | 30,000 Upgrad | e guiderail | end treatment | s | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



Structure Number: 03-06 B0400 **Approaches - Approach Guiderail Element Group** Approaches Length 0.00 **Width** 0.00 2.00 Terminal End 0.00 **Count Element Name** Approach Guiderail Height Location Northwest and Southeast Quadrants **Total Quantity** 2.00 ☐ Limited Inspection Steel Material Steel Beam on Wood Posts **Element Type Environment Protection System** Hot dip galvanizing Benign Moderate **Condition Data** Units Excell. Good Fair Poor 0.00 0.00 Each 2.00 0.00 ✓ Severe Comments Priority Comments **Performance Deficiencies Maintenance Needs**

| None | | |
|------------------------------|----------|---------------------------------|
| Rehab/Repair Recommendations | Priority | Cost Comments |
| Rehab | 1-5 yrs | \$30,000 Upgrade end treatments |



Structure Number:

| Repair/Reh | abilitation Required | | | | |
|--------------------------|-----------------------|----------|-----------------------|-------------------------------|-----------|
| Element Group | Element | | Repair/Rehabilitation | Priorit | y Cost |
| Abutments | Abutment Walls | | Rehab | 6-10 yr | s \$2,000 |
| Approaches | Approach Guiderail | Terminal | Rehab | 1-5 yrs | \$30,000 |
| Approaches | Approach Guiderail | Buried E | Rehab | 1-5 yrs | \$30,000 |
| Abutments | Ballast Walls | | Rehab | 6-10 yr | s \$1,000 |
| Barriers | Barrier/Parapet Walls | Interior | Rehab | 6-10 yr | s \$5,000 |
| Joints | Concrete End Dams | | Rehab | 1-5 yrs | \$5,000 |
| Beams/MLE's | Girders | Middle | Rehab | 1-5 yrs | \$5,000 |
| Beams/MLE's | Girders | End | Rehab | 1-5 yrs | \$35,000 |
| Joints | Seals/Sealants | | Rehab | 1-5 yrs | \$30,000 |
| Sidewalks/curbs | Sidewalks/Medians | | Rehab | 6-10 yr | s \$5,000 |
| Embankments & Streams | Slope Protection | | Rehab | 1-5 yrs | \$5,000 |
| Approaches | Wearing Surface | | Rehab | 1-5 yrs | \$5,000 |
| Decks | Wearing Surface | | Rehab | 1-5 yrs | \$5,000 |
| Abutments | Wingwalls | | Rehab | 6-10 yr | s \$2,000 |
| | | | Tota | al Repair/Rehabilitation Cost | \$165,000 |

| | Comments | | Estimated Cost |
|--------------------------|--|----------------------------------|----------------|
| Approaches | | | \$0 |
| Detours | | | \$0 |
| Traffic Control | | | \$10,000 |
| Utilities | | | \$0 |
| Right-of-Way | | | \$0 |
| Environmental Study | | | \$0 |
| Other | | | \$0 |
| Contingencies | | 10 % ** | \$18,000 |
| Engineering | | 20 % ** | \$35,000 |
| | ge calculated values rounded-up to the | Total Associated Work Cost | \$63,000 |
| nearest thousand dollars | • | Total Repair/Rehabilitation Cost | \$165,000 |
| | | Total Cost | \$228,000 |
| | | Region of York Share @ 100% | \$228,000 |

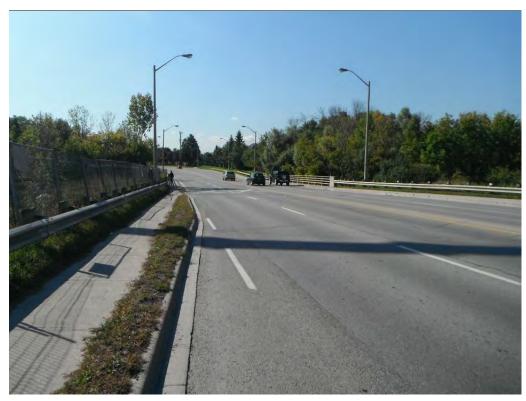


| Municipal Structure Inspection Form | Structure Number: | 03-06 B0400 |
|-------------------------------------|-------------------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |





Looking North at Bridge



Looking South at Bridge



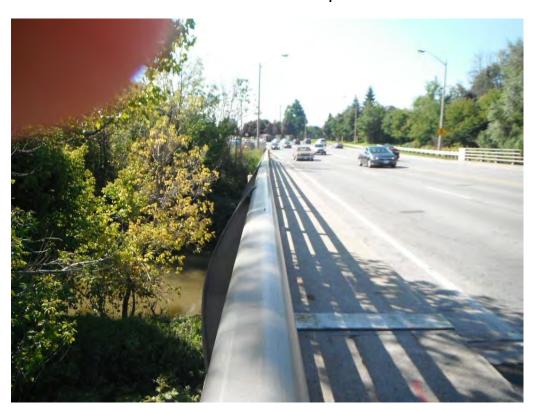
East Elevation



West Elevation



Bent and Broken End Caps



Bent Hand Rail



Missing End Caps



Northeast End of Barrier Wall



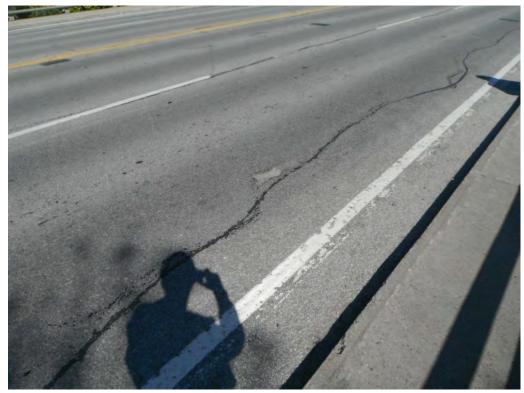
Spall on Interior Barrier Wall



Severe Spall on Curb



Sealed and Unsealed Cracks on Surface



Sealed Crack on Deck Surface



Medium Crack on Concrete End Dam



North Expansion Joint



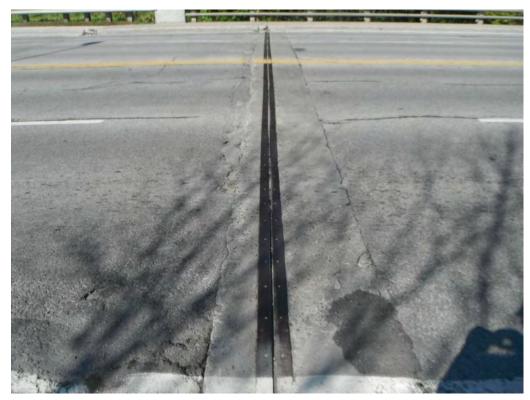
North Expansion Joint



Asphalt Adjacent to Expansion Joint



Pot Hole Adjacent to North Expansion Joint



Pot Holes at South Expansion Joint



Spall and Exposed Rebar at Expansion Joint



Typical Soffit



Delamination on Girder End



Spall on Girder End



Exterior Soffit



East Fascia



Spall on Abutment and Ballast Wall



Typical Bearing



Typical Bearing



Southeast Wingwall



Crack on Northeast Wingwall



Looking East at Dam



Spall on Sidewalk



Medium Cracks on Sidewalk



Spall on Sidewalk



Northwest End of Barrier Rail



Southeast End of Barrier Rail



Southwest End of Barrier Rail



York Region

Bridge Inspection Form

| Struct. ID | 03-06 B04 | 00 | | | | | | | | |
|-------------------------------|--|-------------------|---------------------------------|--------------------------|-------------------|-------------------|--------|--------------|-------|--|
| Inventory Data | | | | | | | | | | |
| Structure Name | Rouge River Bridge | | | | | Line . | and a | V | 0 | |
| Structure Location | 0.4 km North of 7-Regional Road 7 | | | | | The same | | 19 | | |
| Road Number | 3 On X Under | | | | | 131 | | | | |
| Road Name | Kennedy Road | | | | | | | | | |
| Watercourse Name | | | | | | | 3 | | 161 | |
| Crossing Type: | Road Rail Water Navigable waterway River Other Creek Pedestrian | | | | | | | | | |
| Hwy Direction | 1-NORTH/SOUTH | | | | | 1 to 1 | | A CONTRACTOR | | |
| Owner Category | | | | | | | | | | |
| Maint.Resp. | | | | Northing | | 43.86523 | | | | |
| Region | York Region | | | Easting | | | -79.30 | -79.30437 | | |
| District | Southeast | | | National Highway System | | | | | | |
| Municipality | Markham | | Highway Designation | | | | | | | |
| Township | | | | Hwy Functiona | al Classification | | | | | |
| Structure Category | Bridge | | | AADT | 49, | 49,660 N o | | . of Lanes 4 | | |
| Main Struct. Subcateg. | Beam/Girder | | | Trucks (%) | | 4 Pos | | l Speed | 60 | |
| Main Struct. Type | Box Beams / Girders | | | District Bridge Engineer | | | | | | |
| Deck Length (Total) | 31.70 (m) | | | Road Authority | | | | | | |
| Overall Structure Width | 21.00 (m) | | | Bridge Plan # | | | | | | |
| Deck Area (Total) | 665.70 (Sq.m) | | | Min. Vertical Clearance | | | | (m) | | |
| Width (Traffic) | 17.30 (m) | | | Detour Distance | | | | (km) | | |
| Skew Angle | 0.00 | | | Speed on Detour | | | | | (kph) | |
| Number of spans | | | | Fill Height | | | | | (m) | |
| Total Length / Spans (m) | · | | | | | | | | | |
| Historical Data | | | | | | | | | | |
| Year Built | | 1981 | 1 Evaluation Year | | | | | | | |
| Last Biennial Inspection | | eptember 15, 2016 | ember 15, 2016 Current Load Lii | | | | | | | |
| Last Bridge Master Inspection | | | Current BCI | | | | 73.39 | | | |
| Last Condition Survey | | | Current BCU | | | | 38.75 | | | |
| Last Underwater Inspection | | | Current SI | | | | 13.46 | | | |
| Rehab. History | • | | | | | | • | | | |

RptInspection 2017/1/20 16:20



Bridge Inspection Form

| Struct. ID | 0 | 3-06 B0400 | | | | | | |
|--------------|---|------------|----------|--|------------|----------|--|--|
| Scheduled | Improvements | | | | | | | |
| Regional Pr | iority Number | | | | Programmed | d Wo | rk Year | |
| Nature of P | rogrammed Work | _ | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | _ | | | |
| Appraisal I | Indices | | | | Cor | mmei | nts | |
| Load Capad | city Index | | | | | | | |
| Flood Index | (| | | | | | | |
| Barrier Inde | ex | | | | | | | |
| Curb Index | | | | | | | | |
| Seismic Ind | lex | | | | | | | |
| Fatigue Ind | ex | | | | | | | |
| Scour Index | | | | | | | | |
| Structure Ir | ndex | | | | | | | |
| | | | | <u> </u> | | | | |
| | | | | | | | | |
| Suspected I | Performance Deficiencies | | | | | | | |
| 00 | None | | 06 | Bearings not uniformly loaded/unstab | ble | 12 | Slippery surface | |
| 01 02 | Load carrying capacity Excessive deformations (deflections | | 07 | Jammed expansion joint Pedistrian/vehicular hazard | | 13 | Flooding/channel blockage | |
| 03 | Continuing settlement | | 08 | Rough riding surface | | 14 15 | Undermining of foundation Unstable embankments | |
| 04 | Continuing movements | | 10 | Surface ponding | | | Other | |
| 05 | Seized bearings | | 11 | Deck drainage | | 16 | Other | |
| Maintenan | ce Needs | | | | | | | |
| 01 | Lift and Swing Bridge Maintenance | | 07 | Repairs 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 06 | Bridge Deck Joint Repair Bridge Bearing Maintenance | | 11 12 | Animal/Pest Control Bridge Surface Repair | | 17 | Other | |
| | | | | | | | | |



Bridge Inspection Form

| Struct. ID | 0: | 3-06 B0400 | | | | | | | | | |
|----------------------------------|------------------|-------------------|--|-------------------|------------|--------------------|---------------------|------------------------|----------|------------------------|-------------------|
| Field Inspection In | nformation | | | | | | | | | | |
| Inspection Date | | September 15, | 2016 | | | | Weather | | | Clear / Sunny | |
| Inspector | | | | | | | Temperat | ture | | 21 | |
| Others in Party | | S. McaDade, R | . Patel, J. N | laik, P. Eng., S | upervising | Eng. | | | | | |
| Equipment Used | | Camera, Hamm | | | | | | | | | |
| Access Equipment Us | sed | Ladder | | Boat \square | | | Bucket ⁻ | Truck 🗍 | | Hip Waders | П |
| | | Access | Key ∏ | _ | Climbing | Inspec | tion 🗌 | | Jnder | Bridge Inspection Unit | П |
| Special Notes | | | <u> </u> | | | <u> </u> | | | | <u> </u> | <u> </u> |
| Overall in good conditi girders. | on. Maintenar | nce needs identif | ied on the v | wearing surface | e, sidewal | ks, joints | s, abutmen | t wall, wingwal | l, balla | ast wall and | |
| Upcoming Inspect | ions and Inv | restigations | | | | | | | | | |
| Inspection Type | | | Due Date | | Prio | rity | | Comment | | | |
| | | | | | | | | | | | |
| Recommended Ins | spections an | d Investigatio | ns | | | | | | | | |
| Recommended Inspec | ction Type | | | Due Date | None I | Priority Iormal | / Urgent | Estimated Cost (\$) | С | omments | |
| Material Condition Survey | <i>r</i> : | | | | | | | | | | |
| Detailed Deck Condition | Survey | | | | | | | | | | |
| Non-destructive Delamir | nation Survey of | Asphalt-Covered | Deck | | | | | | | | |
| Concrete Substructure (| Condition Survey | / | | | | | | | | | |
| Detailed Coating Condit | ion Survey | | | | | | | | | | |
| Detailed Timber Investig | ation | | | | | | | | | | \longrightarrow |
| Post-Tensioned Strand I | nvestigation | | | | | _무 | | | | | |
| Underwater Investigation | | | | | _ | | | | | | \longrightarrow |
| Fatigue Investigation | | | | | | | <u> </u> | | | | \longrightarrow |
| Seismic Investigation | | | | | | | | | | | \longrightarrow |
| Structure Evaluation Monitoring | | | | | Ш | | | | | | |
| Monitoring of Deformation | ons, Settlements | and Movements | | | | | | | | | |
| Monitoring Crack Widths | <u> </u> | | | | | | | | | | |
| Overall Structure | Recommend | dations: | | | | | | | | | |
| Work Category | None 🗌 | | Minor Rel | hab X | | М | ajor Rehal | - | | Replacement | |
| Timing | None \square | ι | Irgent | | < 1 ye | | | 1 - 5 year | X | 6 - 10 yea | |
| <u> </u> | \$67,600 | | <u>, </u> | | | | | , | | , | \dashv |
| t | | ent and upgradi | ng the guide | e rail end treatr | nent is re | commen | ıded | | | | |



Bridge Inspection Form

| Struct. ID | | 03-0 | 06 B0400 | | | | | | | |
|----------------|------------|-----------------|---------------|---------|-------|-------------|-----------------------|--|---------|--------|
| Element Data | | | | | | | | | | |
| | A la | | | | | 44 | l | | 10.00 | |
| Group | Abutme | | | | | 14 | | N/A | 18.00 | • • |
| Element | Abutme | nt walls | | | | _ | Width | | 0.00 | (m) |
| Span Num | | | | | | | Height | | 2.00 | (m) |
| Material | Cast-in- | -place concr | ete | | | | Count | <u> </u> | 2.00 | |
| Туре | Conven | itional closed | <u> </u> | | | | Quantity | <u> </u> | 72.000 | (Sq.m) |
| Env't | E | Benign X | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | North a | nd South | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainter | ance Ne | eds |
| Data | Sq.m | 0.000 | 70.000 | 1.000 | 1.000 | | | | | |
| Comments | | | | | | | | | CR = | 5 |
| Wide crack, an | ıd delamir | nation on the I | North abutme | nt. | | | | | | |
| Maintenance N | Needs | | | | | Need | Timing | | | |
| 8-Repair of B | Bridge Cor | ncrete | | | | 2 Yea | _ | | | |
| Performance D | | | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 1 |
| _ | Abutmei | -1- | | | | 40 | 141- | T N/A | 40.00 | , , |
| Group | Ballast v | | | | | 10 | Length | N/A | 18.00 | |
| Element | Dallasi (| walls | | | | _ | Width | | 0.00 | (m) |
| Span Num | | | | | | | Height | | 1.00 | (m) |
| Material | Cast-in- | -place concr | ete | | | | Count | <u> </u> | 2.00 | |
| Туре | | N/A | | | | | Quantity | <u> </u> | 36.000 | (Sq.m) |
| Env't | E | Benign 🗌 | Mode | erate 🛛 | Seve | ere 🗌 | Not Inspected | | | |
| Location | North a | nd South | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainter | ance Ne | eds |
| Data | Sq.m | 0.000 | 33.000 | 2.000 | 1.000 | | | | | |
| Comments | | | | | | | | | CR = | 5 |
| Stained areas, | wet areas | s, spall in Nor | thwest quadra | ant. | | | | | | |
| Maintenance N | Needs | | | | | Need | Timing | | | |
| 8-Repair of B | | ncrete | | | | 2 Yea | _ | | | |
| Performance D | | | | | | 00 | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 2 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | | | |
|-------------------------|------------|-----------|---------|-------------|-------|-------------|-----------------------|----------|---------|--------|
| Element Data | 1 | | | | | | | | | |
| | | | | | | | | | | |
| Group | Abutme | ents | | | | 22 | Length | N/A | 0.00 | (m) |
| Element | Bearing | js. | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | | 28.00 | |
| Туре | Elastor | meric pad | | | | | Quantity | | 28.000 | (Each) |
| Env't | | Benign 🗌 | Mode | erate 🛛 | Seve | ere 🗌 | Not Inspected | | | |
| Location | South / | Abutment | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Each | 0.000 | 28.000 | 0.000 | 0.000 | | | <u> </u> | | |
| Comments | | | | | | | | | CR = | 1 |
| Performance D 0-None | eficienci | ies | | | | | | | | 3 |
| Group | Abutme | ents | | | | 15 | Length | N/A | 0.00 | (m) |
| Element | Bearing | js . | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | _ | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | | 28.00 | |
| Туре | Elastor | meric pad | | | | | Quantity | | 28.000 | (Each) |
| Env't | | Benign 🔲 | Mode | erate X | Seve | ere 🗌 | Not Inspected | I | | |
| Location | | Abutment | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainter | ance Ne | eds |
| Data | Each | 0.000 | 28.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Performance D 0-None | ∂eficienci | ies | | | | | | | | 4 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | | | |
|----------------|------------|-------------------|--------------|-----------------|---------------|-------------|-----------------------|-----------|----------|--------|
| Element Data | | | | | | | | | | |
| | | | | | | | | ı | | |
| Group | Abutme | ents | | | | 13 | Length | | 4.60 | (m) |
| Element | Wingwa | alls | | | | _ | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | | 1.40 | (m) |
| Material | Cast-in | -place concre | ete | | | | Count | | 4.00 | |
| Туре | Reinfo | ced concrete | ! | | | | Quantity | | 25.760 | (Sq.m) |
| Env't | | Benign 🗌 | Mode | erate 🛛 | Seve | ere 🗌 | Not Inspected | | | |
| Location | All Qua | adrants | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Nee | ds |
| Data | Sq.m | 0.000 | 22.760 | 2.000 | 1.000 | | | | | |
| Comments | | | | | | | | | CR = | 5 |
| Narrow stained | l crack, w | ∕et areas, effloi | rescence dep | osits, spall in | Northwest qua | adrant. | | | | |
| Maintenance N | Needs | | | | | Need | Timing | | | |
| 8-Repair of B | ridge Co | ncrete | | | | 2 Yea | irs | | | |
| Performance D | eficienc | ies | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 5 |
| | | | | | | | | | | |
| Group | Approa | ches | | | | 24 | Length | N/A | 0.00 | (m) |
| Element | Approa | ch Guiderail (Y | ′ork) | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | N/A | 2.00 | |
| Туре | | N/A | | | | | Quantity | | 2.000 | (m) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | Northe | ast and South | nwest Quadi | rants | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Nee | ds |
| Data | m | 0.000 | 2.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Performance D | eficienc | ies | | | | | | | | |
| 0-None | | | | _ | | | | | | |
| Recommended | d Work | | | Catego | - | Timing | Quantity | Unit Cost | Total Co | |
| | | | | Replace | ement | 1 - 5 year | 0.000 | | 300 | 000 6 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | | | |
|---|--------------------------------------|--|-------------------------|---------|-------|--|---|-------------|---|------------------------------------|
| Element Data | ı | | | | | | | | | |
| | | | | | | | T | 1 | | |
| Group | Approa | | | | | 25 | | N/A | 0.00 | (m) |
| Element | Approa | ch Guiderail (\ | ′ork) | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | N/A | 2.00 | |
| Туре | | N/A | | | | | Quantity | L | 2.000 | (m) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Sev | ere 🗌 | Not Inspected | | | |
| Location | Northw | est and Sout | heast Quad | rants | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintena | ance Ne | eds |
| Data ——— | m | 0.000 | 2.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Performance D | eficienc) | ies | | | | | | | | |
| 0-None | al NA/a wis | | | 0-1 | | * *********************************** | - | | | |
| Recommende | a work | | | Catego | ry | Timing | Quantity Un | it Cost | Total C | |
| | | | | D I | 4 | 4 5 | - | | | Cost (\$) |
| | | | | Replace | ement | 1 - 5 year | | | | 0000 7 |
| | | | | Replace | ement | | | | 30 |)000 7 |
| Group | Approa | | | Replace | ement | 1 - 5 year 4 | Length | | |)000 7 |
| Group Element | | ches ch slabs | | Replace | ement | | Length Width | | 30 | 7 |
| | | | | Replace | ement | | - | | 6.00 | 0000 7 (m) |
| Element | Approa | | ete | Replace | ement | | Width | | 6.00 | (m) (m) |
| Element Span Num | Approa | ch slabs | ete | Replace | ement | | Width Height | 20 | 6.00 17.30 0.00 | (m) (m) |
| Element Span Num Material | Approa | ch slabs | | Replace | | | Width Height Count | 20 | 6.00 17.30 0.00 2.00 | (m) (m) (m) |
| Span Num Material Type | Approa | ch slabs n-place concre N/A | | | | 4 | Width Height Count Quantity | 20 | 6.00 17.30 0.00 2.00 | (m) (m) (m) |
| Span Num Material Type Env't Location Condition | Approa | ch slabs -place concre N/A Benign | | | | ere | Width Height Count Quantity | 20 Maintena | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (m) (Sq.m) |
| Element Span Num Material Type Env't Location | Approa | ch slabs -place concre N/A Benign and South | Mode | erate X | Sev | ere Description | Width Height Count Quantity Not Inspected | | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (m) (Sq.m) |
| Span Num Material Type Env't Location Condition | Cast-in North a Unit | n-place concre N/A Benign and South Excellent | Mode | erate 🔀 | Sev | ere Description | Width Height Count Quantity Not Inspected | | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (Sq.m) |
| Span Num Material Type Env't Location Condition Data | Approa | and South Excellent 0.000 | Mode Good 204.600 | erate 🔀 | Sev | ere Description | Width Height Count Quantity Not Inspected | | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (Sq.m) |
| Element Span Num Material Type Env't Location Condition Data Comments | Approa | and South Excellent 0.000 | Mode Good 204.600 | erate 🔀 | Sev | ere Description | Width Height Count Quantity Not Inspected | | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (Sq.m) |
| Element Span Num Material Type Env't Location Condition Data Comments Wide cracks, p | Approa Cast-in North a Unit Sq.m | and South Excellent 0.000 | Mode Good 204.600 | erate 🔀 | Sev | ere Description | Width Height Count Quantity Not Inspected | | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (Sq.m) |
| Element Span Num Material Type Env't Location Condition Data Comments Wide cracks, p | Approa Cast-in North a Unit Sq.m | and South Excellent 0.000 | Mode Good 204.600 | erate 🔀 | Sev | ere Description | Width Height Count Quantity Not Inspected | | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (Sq.m) |
| Element Span Num Material Type Env't Location Condition Data Comments Wide cracks, p | Approa Cast-in North a Unit Sq.m | and South Excellent 0.000 | Mode Good 204.600 | erate 🔀 | Sev | ere Description | Width Height Count Quantity Not Inspected | | 6.00 17.30 0.00 2.00 07.600 | (m) (m) (m) (Sq.m) |



Bridge Inspection Form

| Struct. ID | | 03-0 | 06 B0400 | | | | | | | |
|----------------|------------|----------------|--------------|---------|---------|-------------|-----------------------|-----------|-------|--------|
| Element Data | | | | | | | | | | |
| | | | | | | | ı | | | |
| Group | Approac | | | | | 3 | Length | | 6.00 | (m) |
| Element | Wearing | g surface | | | | _ | Width | 1 | 7.30 | (m) |
| Span Num | | | | | | _ | Height | | 0.00 | (m) |
| Material | Asphal | t | | | | | Count | | 2.00 | |
| Туре | | N/A | | | | | Quantity | 208 | 3.000 | (Sq.m) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🛛 | Not Inspected | | | |
| Location | North a | and South | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenan | ce Ne | eds |
| Data | Sq.m | 0.000 | 198.000 | 8.000 | 2.000 | | | | | |
| Comments | | | | | | | | | CR = | 5 |
| Narrow to wide | cracks, ¡ | pothole, narro | w random cra | ck. | | | | • | | |
| Maintenance I | Needs | | | | | Need | Timing | | | |
| 12-Bridge Su | face Rep | air | | | | 1 Yea | ar | | | |
| 15-Rout and S | Seal | | | | | 1 Yea | ar | | | |
| Performance D | Deficienci | ies | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 9 |
| | | | | | | | | 1 | | |
| Group | Barriers | | | | | 8 | | | | (m) |
| Element | Barrier/ | Parapet Walls | | | Interio | or — | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | _ | Height | | 1.50 | (m) |
| Material | Cast-in | -place concr | ete | | | | Count | | 4.00 | |
| Туре | Other | | | | | | Quantity | 1 7 | 7.200 | (Sq.m) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🛛 | Not Inspected | | | |
| Location | End Po | osts | - | | • | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenan | ce Ne | eds |
| Data ——— | Sq.m | 0.000 | 5.200 | 1.000 | 1.000 | | | | | |
| Comments | | | | | | | | | CR = | 5 |
| Spall and dela | mination a | at North end p | osts. | | | | | _ | | |
| Maintenance I | Needs | | | | | Need | Timing | | | |
| 8-Repair of B | Bridge Co | ncrete | | | | 2 Yea | ars | | | |
| Performance D | Deficienci | ies | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | | | |
|---------------------|-----------|----------------|---------|---------|-------|-------------|-----------------------|----------|---------|--------|
| Element Data | l | | | | | | | | | |
| | | | | | | | | | | |
| Group | Barriers | 5 | | | | 9 | Length | | 1.20 | (m) |
| Element | Barrier/ | Parapet Walls | | | Exter | ior | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | _ | Height | | 1.15 | (m) |
| Material | Cast-in | n-place concre | ete | | | _ | Count | | 4.00 | |
| Туре | Other | | | | | | Quantity | | 5.520 | (Sq.m) |
| Env't | | Benign 🗌 | Mode | erate 🛛 | Sev | ere 🗌 | Not Inspected | | | |
| Location | End Po | osts | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintena | ance Ne | eds |
| Data | Sq.m | 0.000 | 5.520 | 0.000 | 0.000 | | | | | |
| Performance D | Deficienc | ies | | | | | | | | 11 |
| Group | Barriers | 3 | | | | 7 | Length | | 0.00 | (m) |
| Element | Posts | | | | | • | Width | | 0.00 | (m) |
| Span Num | | | | | | _ | Height | | 0.00 | (m) |
| Material | Alumin | ium | | | | | Count | | 34.00 | |
| Туре | | N/A | | | | | Quantity | ; | 34.000 | (Each) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Sev | ere 🛛 | Not Inspected | | | |
| Location | East a | nd West | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintena | ance Ne | eds |
| Data | Each | 0.000 | 34.000 | 0.000 | 0.000 | | | | | |
| Performance DO-None |)eficienc | ies | | | | | | | CR = | 1 |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | |
|-----------------|-------------|-----------------|------------------|-----------------|----------------|----------------|-----------------------|-------------------|
| Element Data | 1 | | | | | | | |
| | Damiana | | | | | | 1 | 20.00 () |
| Group | Barriers | | | | | | Length | 36.80 (m) |
| Element | Railing · | Systems | | | | _ | Width | N/A 0.00 (m) |
| Span Num | | | | | | | Height | 0.00 (m) |
| Material | Alumini | um | | | | | Count | 2.00 |
| Туре | 4 Rail N | /letal Railing | - Aluminum | | | | Quantity | 73.600 (Sq.m) |
| Env't | I | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🛛 | Not Inspected | |
| Location | East ar | nd West | | | | Description | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenance Needs |
| Data | Sq.m | 0.000 | 67.600 | 5.000 | 1.000 | | | |
| Comments | | | | | | | | CR = 5 |
| Abrasion, unse | ecured an | d missing end | -caps. | | | | | |
| Maintenance I | Needs | | | | | Need | Timing | |
| 3-Bridge Har | ıdrail Mair | ntenance | | | | 2 Yea | ars | |
| Performance D | Deficienci | es | | | | | | |
| 0-None | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | 40 |
| | | | | | | | | 13 |
| Group | Beams/ | MLE's | | | | 17 | Length | 2.00 (m) |
| Element | Girders | | | | End | | Width | 1.22 (m) |
| Span Num | | | | | | | Height | 1.00 (m) |
| Material | Precast | concrete | | | | | Count | 28.00 |
| Туре | Box/tra | pezoidal | | | | | Quantity | 180.320 (Sq.m) |
| Env't | ı | Benign 🔲 | Mode | erate 🛛 | Seve | ere 🗌 | Not Inspected | |
| Location | Below I | Deck | | | | Description | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenance Needs |
| Data | Sq.m | 0.000 | 166.320 | 7.000 | 7.000 | | | |
| Comments | | | | | | | | CR = 5 |
| Spall of the No | rth girder | s at the exteri | or, delamination | on of the botto | om flanges, ex | posed corroded | rebars. | |
| Maintenance I | Needs | | | | | Need | Timing | |
| 8-Repair of B | Bridge Cor | ncrete | | | | 2 Yea | ars | |
| Performance D | Deficienci | es | | | | | | |
| 0-None | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | 14 |



Bridge Inspection Form

| | | 03-0 | 6 B0400 | | | | | |
|--|----------------------------------|--|--------------|-----------------|-------|-----------------|---|---|
| Element Data | 1 | | | | | | | |
| Group | Beams/ | MLE's | | | | 18 | Length | 26.00 (m) |
| Element | Girders | | | | Midd | le | Width | 1.27 (m) |
| Span Num | | | | | | | Height | 1.00 (m) |
| Material | Precas | t concrete | | | | | Count | 14.00 |
| Туре | Box/tra | pezoidal | | | | | Quantity | 1,190.280 (Sq.m) |
| Env't | l | Benign X | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | |
| Location | Below | Deck | | | | Description | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenance Needs |
| Data | Sq.m | 0.000 | 1,188.280 | 1.000 | 1.000 | | | |
| Comments | | | | | | | | CR = 5 |
| Small spall nea | ar South e | end. | | | | | | |
| Maintenance I | Needs | | | | | Need | Timing | |
| 8-Repair of B | Bridge Co | ncrete | | | | 2 Yea | ars | |
| Performance D | Deficienci | es | | | | | | |
| 0-None | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | 15 |
| | | | | | | | | 15 |
| Group | Decks | | | | | 2 | Length | 31.70 (m) |
| Group Element | Decks Deck to | р | | | | 2 | Length Width | I |
| | | р | | | | 2 | - | 31.70 (m) |
| Element | Deck to | p -place concre | ete | | | 2 | Width | 31.70 (m) 21.00 (m) |
| Element Span Num | Deck to | • | | | | 2 | Width Height | 31.70 (m) 21.00 (m) 0.00 (m) |
| Element Span Num Material | Deck to Cast-in Solid or | -place concr | | erate X | Seve | 2 | Width Height Count | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 |
| Span Num Material Type | Deck to Cast-in Solid or | -place concre | | erate 🔀 | Sevi | | Width Height Count Quantity | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 |
| Span Num Material Type Env't | Deck to Cast-in Solid or | -place concre r voided slab Benign ☐ | | erate ⊠ Fair | Seve | ere 🗌 | Width Height Count Quantity | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 |
| Element Span Num Material Type Env't Location | Cast-in Solid or Below | -place concre r voided slab Benign Roadway | Mode | | | ere Description | Width Height Count Quantity Not Inspected | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 665.700 (Sq.m) |
| Span Num Material Type Env't Location Condition | Cast-in Solid of Below Unit | -place concre r voided slab Benign Roadway Excellent | Mode Good | Fair | Poor | ere Description | Width Height Count Quantity Not Inspected | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 665.700 (Sq.m) |
| Span Num Material Type Env't Location Condition Data | Cast-in Solid or Below Unit Sq.m | -place concrete voided slab Benign Roadway Excellent 0.000 | Mode Good | Fair | Poor | ere Description | Width Height Count Quantity Not Inspected | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 665.700 (Sq.m) Maintenance Needs |
| Element Span Num Material Type Env't Location Condition Data Comments | Cast-in Solid or Below Unit Sq.m | -place concrete voided slab Benign Roadway Excellent 0.000 | Mode Good | Fair | Poor | ere Description | Width Height Count Quantity Not Inspected | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 665.700 (Sq.m) Maintenance Needs |
| Element Span Num Material Type Env't Location Condition Data Comments | Cast-in Solid or Below Unit Sq.m | -place concrete voided slab Benign Roadway Excellent 0.000 | Mode Good | Fair | Poor | ere Description | Width Height Count Quantity Not Inspected | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 665.700 (Sq.m) Maintenance Needs |
| Element Span Num Material Type Env't Location Condition Data Comments Asphalt patche | Cast-in Solid or Below Unit Sq.m | -place concrete voided slab Benign Roadway Excellent 0.000 | Mode Good | Fair | Poor | ere Description | Width Height Count Quantity Not Inspected | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 665.700 (Sq.m) Maintenance Needs |
| Element Span Num Material Type Env't Location Condition Data Comments Asphalt patche | Cast-in Solid or Below Unit Sq.m | -place concrete voided slab Benign Roadway Excellent 0.000 | Mode Good | Fair | Poor | ere Description | Width Height Count Quantity Not Inspected | 31.70 (m) 21.00 (m) 0.00 (m) N/A 0.00 665.700 (Sq.m) Maintenance Needs |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | | | |
|---------------------|----------------------|-----------------|----------------|---------------|----------------|-------------|-----------------------|--------------|---------|------------------|
| Element Data | 1 | | | | | | | | | |
| | | | | | | | T | | | |
| Group | Decks | | | | | 1 | 19 | | 31.70 | (m) |
| Element | Wearing | g surface | | | | _ | Width | <u> </u> | 17.30 | (m) |
| Span Num | | | | | | | Height | | 0.00 | (m) |
| Material | Asphal | t | | | | | Count | N/A | 0.00 | |
| Туре | | N/A | | | | | Quantity | | 48.410 | (Sq.m) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🛛 | Not Inspected | | | |
| Location | Above | Deck | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data ——— | Sq.m | 0.010 | 536.400 | 12.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Narrow to med | ium cracl | k, sealed crack | s, light to me | dium raveling | , patched area | S. | | | | _ |
| | | | | | | | | | | |
| Performance D |)eficienci | ies | | | | | | | | |
| 0-None | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 17 |
| 0 | - Embani | rments & Strea | | | | 10 | l a marth | | 0.00 | () |
| Group | Emban | | ams | | | 19 | Length | N/A | 0.00 | |
| Element | LIIIDAIII | KITICITIS | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | N/A | 6.00 | <i>(</i> = , ,) |
| Туре | | N/A | | | | | Quantity | + | 6.000 | (Each) |
| Env't | | Benign 🗌 | | erate 🗌 | Seve | ere 🗌 | Not Inspected | <u> </u> | | |
| Location | | adrants, In Fr | | | | Description | | 1 | | _ |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Each | 0.000 | 6.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| | | | | | | | | | | |
| Daufauman - F | \ . f ! . ! ! | | | | | | | | | |
| Performance Downson | encienci | les | | | | | | | | |
| U-INUITE | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | 18 |



Bridge Inspection Form

| Width | Struct. ID | | 03-0 | 6 B0400 | | | | | | | |
|--|----------------|-----------|---------------|--------------|----------------|-------|--|-----------------------|----------------|---------|--------|
| Minor Rehab 1 - 5 year Description Siope protection Width Ni/A 0.00 (m) | Element Data | | | | | | | | | | |
| Minor Rehab 1 - 5 year Description Siope protection Width Ni/A 0.00 (m) | | | | | | | | | | | |
| Span Num | Group | Embank | ments & Strea | ams | | | 21 | Length | N/A | 0.00 | (m) |
| Material | Element | Slope p | rotection | | | | | Width | N/A | 0.00 | (m) |
| Type | Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Description Data Description Description Description Data Description Descrip | Material | | N/A | | | | | Count | N/A | 2.00 | |
| Description In Front of Abutments | Туре | Precast | t units | | | | | Quantity | <u> </u> | 2.000 | (Each) |
| Condition Data Each O.000 2.000 O.000 O. | Env't | l | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Data Each 0.000 2.000 0.000 0.000 | Location | In Fron | t of Abutmen | ts | | | Description | | | | |
| Comments Comments | _ | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Missing blocks noted, gap between abutment and slope protection. Performance Deficiencies 0-None Recommended Work Category Minor Rehab 1 - 5 year 0 0 000 5000 19 Total Cost (\$) 5000 (m) Condition Total Cost (\$) 5000 (m) Total Cost (\$) Total Cos | Data | Each | 0.000 | 2.000 | 0.000 | 0.000 | | | | | |
| Performance Deficiencies 0-None Recommended Work Category Timing Quantity Unit Cost Total Cost (\$) Minor Rehab 1 - 5 year 0.000 5000 19 Group Embankments & Streams 20 Length N/A 0.00 (m) Signent Width N/A 0.00 (m) Span Num Height N/A 0.00 (m) Material N/A Count N/A 4.00 (Each) Type Vegetation Quantity 4.000 (Each) Env't Benign Moderate Severe Not Inspected | Comments | | | | | | | | | CR = | 1 |
| O-None Recommended Work | Missing blocks | noted, ga | ap between ab | utment and s | lope protectio | n. | | | | | |
| Category Timing Quantity Unit Cost Total Cost (\$) | Derfermance D | · C-lonal | · - | | | | | | | | |
| Category Timing Quantity Unit Cost Total Cost (\$) 5000 19 1 - 5 year 0.000 0.000 19 1 - 5 year 0.000 10 1 - 5 year 0.000 1 - 5 year | | eficienci | es | | | | | | | | |
| Minor Rehab 1 - 5 year 0.000 5000 19 | | l Work | | | Ontono | | Timeles es | | | | |
| Signature Sign | Recommended | IVVOIR | | | | | • | - | iit Cost | | |
| Some protection Width N/A 0.00 (m) | | | | | WIIIIOI K | епар | i - 5 yeai | 0.000 | | | |
| Some protection Width N/A 0.00 (m) | _ | | | | | | 00 | | l | | |
| Span Num | - | | | ams | | | 20 | | | | |
| Material N/A Count N/A 4.00 Type Vegetation Quantity 4.000 (Each) Env't Benign Moderate Severe Not Inspected Not Inspected Location All Quadrants Description Condition Data Unit Excellent Good Fair Poor V. Poor Perform. Deficiencies Maintenance Needs Each 0.000 4.000 0.000 0.000 0.000 Comments CR = 1 | | Slope p | rotection | | | | _ | | + | | |
| Type Vegetation Quantity 4.000 (Each) Env't Benign | | | | | | | | - | + | | (m) |
| Env't Benign Moderate Severe Not Inspected Location All Quadrants Condition Data Each 0.000 4.000 0.000 0.000 Comments Performance Deficiencies | Material | | | | | | | | N/A | | |
| Description | Туре | | | | | | | • | ├ ─ | 4.000 | (Each) |
| Condition Data Unit Excellent Good Fair Poor V. Poor Perform. Deficiencies Maintenance Needs Each 0.000 4.000 0.000 CR = 1 Performance Deficiencies | Env't | | | Mode | ∍rate ∐ | Seve | | Not Inspected | | | |
| Data Each 0.000 4.000 0.000 0.000 | | | T I | | | | | | 1 | | |
| Comments CR = 1 Performance Deficiencies | | | i | | | | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Performance Deficiencies | | Lach | 0.000 | 4.000 | 0.000 | 0.000 | | | <u> </u> | | |
| | Comments | | | | | | | | | CR = | 1 |
| | | | | | | | | | | | |
| | Performance D | oficionci | 00 | | | | | | | | |
| V None | | encienci | 65 | | | | | | | | |
| | 0 110110 | | | | | | | | | | |
| | | | | | | | | | | | |



Bridge Inspection Form

| | | | 6 B0400 | | | | | | | |
|-------------------------|---------------------------------|----------------|---------|---------|-------|-------------|-----------------------|---------|---------|--------|
| Element Data | | | | | | | | | | |
| | | | | | | | T | 1 | | |
| Group | Foundations 23 | | | | | | | N/A | 0.00 | (m) |
| Element | Foundation (below ground level) | | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | Unknov | vn | | | | | Count | N/A | 0.00 | |
| Туре | Unknov | vn | | | | | Quantity | | 1.000 | (Sq.m) |
| Env't | I | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🗌 | Not Inspected | | | |
| Location | At Abut | ments | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | Sq.m | 0.000 | 1.000 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Limited inspect | ion. | | | | | | | | | |
| Performance D 0-None | eficienci | es | | | | | | | | 21 |
| Group | Joints | | | | | 11 | Length | | 17.30 | (m) |
| Element | Armorin | g/retaining de | vices | | | | Width | N/A | 0.09 | (m) |
| Span Num | | | | | | _ | Height | N/A | 0.00 | (m) |
| Material | Steel | | | | | | Count | | 4.00 | |
| Туре | | N/A | | | | | Quantity | | 69.200 | (m) |
| Env't | I | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🛛 | Not Inspected | | | |
| Location | North a | and South | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | ance Ne | eds |
| Data | m | 0.000 | 69.200 | 0.000 | 0.000 | | | | | |
| Comments | | | | | | | | | CR = | 1 |
| Scrapes. | | | | | | | | | | |
| Performance D 0-None | eficienci | es | | | | | | | | |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | | | |
|--|---|--------------------|----------------|------------------------|---------------|----------------------|-----------------------|-----------|------------------|-----------|
| Element Data | | | | | | | | | | |
| Group | Joints | | | | | 10 | Length | | 17.30 | (m) |
| Element | Concre | te end dams | | | | | Width | | 0.36 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | Cast-in | -place concre | ete | | | | Count | | 4.00 | |
| Туре | | N/A | | | | | Quantity | | 24.912 | (Sq.m) |
| Env't | | Benign 🗌 | Mode | erate 🗌 | Seve | ere 🛛 | Not Inspected | | | |
| Location | North a | and South | | | | Description | | | | |
| Condition Data | Unit Sq.m | Excellent 0.002 | Good 19.910 | Fair 3.000 | Poor 2.000 | V. Poor | Perform. Deficiencies | Mainten | eds | |
| Comments Severe spall, m | | l l | | | | | | | CR = | 6 |
| Maintenance N 8-Repair of B Performance D 0-None | ridge Co | | | | | Need 2 Yea | Timing ars | | | 23 |
| Group | Joints | | | | | 12 | Length | | 17.30 | (m) |
| Element | Seals/s | ealants | | | | | Width | N/A | 0.00 | (m) |
| Span Num | | | | | | | Height | N/A | 0.00 | (m) |
| Material | | N/A | | | | | Count | | 2.00 | |
| Туре | Compre | ession seal | | | | | Quantity | | 2.000 | (m) |
| Env't | | Benign 🔲 | Mode | erate 🔲 | Seve | ere 🛛 | Not Inspected | | | |
| Location | North a | and South | | | | Description | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Mainten | Maintenance Need | |
| Data | m | 0.000 | 0.000 | 0.000 | 2.000 | | | | | |
| | Both seals are cracked and leaking. Performance Deficiencies | | | | | | | | 6 | |
| Recommended Work | | | | Categoi | у | Timing | Quantity | Unit Cost | Total C | Cost (\$) |
| JS400 Replace Default Joint Seal (m.) | | | | Replacement 1 - 5 year | | 2.000 | 1300 | | 2600 | |



Bridge Inspection Form

| Struct. ID | | 03-0 | 6 B0400 | | | | | | | | |
|-----------------------------|-------------|-----------------|---------------|-----------|----------|-------------|-----------------------|-------------------|--|--|--|
| Element Data | ı | | | | | | | | | | |
| | | | | | | | _ | | | | |
| Group | Sidewal | ks/curbs | | | | 5 | Length | 43.70 (m) | | | |
| Element | Sidewa | lk and median | s | | | | Width | 1.85 (m) | | | |
| Span Num | | | | | | | Height | 0.00 (m) | | | |
| Material | Cast-in | -place concr | ete | | | | Count | 2.00 | | | |
| Туре | | N/A | | | | | Quantity | 161.690 (Sq.m) | | | |
| Env't | l | Benign 🗌 | Mode | rate 🗌 | Severe X | | Not Inspected | | | | |
| Location | East ar | nd West | | | | Description | | | | | |
| Condition | Unit | Excellent | Good | Fair | Poor | V. Poor | Perform. Deficiencies | Maintenance Needs | | | |
| Data | Sq.m | 0.000 | 157.690 | 3.000 | 1.000 | | | | | | |
| Comments | | | | | | | | CR = 5 | | | |
| Abrasions, spa | alls, aspha | alt patches, na | rrow to mediu | m cracks. | | | | | | | |
| Maintenance I | Needs | | | | | Need | Timing | | | | |
| 8-Repair of Bridge Concrete | | | | | 2 Years | | | | | | |
| Performance Deficiencies | | | | | | | | | | | |
| 0-None | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | 25 | | | |



Bridge Inspection Form

Struct. ID 03-06 B0400

| Recommended Work (Element Level) | | | | | | | | |
|--|---------------------------------------|------|------|--|---|------------|--------|--|
| Element | Repair / Rehabilitation | None | Time | | | | | |
| Joints / Seals/sealants / Compression seal | JS400 Replace Default Joint Seal (m.) | | | | х | | 2,600 | |
| Embankments & Streams / Slope protection / Precast units | | | | | Х | | 5,000 | |
| Approaches / Approach Guiderail (York) | | | | | Х | | 30,000 | |
| Approaches / Approach Guiderail (York) | | | | | Х | | 30,000 | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | Total Cost | 67,600 | |

| Recommended Work (Structure Level) | | | | | |
|--------------------------------------|-----------------------------|------------------------|--|--|--|
| Associated Work | <u>Comments</u> | Estimated Cost (\$) | | | |
| Approaches | | | | | |
| Detours | | | | | |
| Other | Contingencies & Engineering | 53,000 | | | |
| Traffic Control | | 10,000 | | | |
| Utilities | | | | | |
| | Total Cost | 63,000 | | | |
| | Grand Total Cost: | \$130,600 | | | |



Bridge Inspection Form

Struct. ID

03-06 B0400



Description

East barrier, general photo

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2

Interior
Cast-in-place concrete
East

Other

Barriers/Barrier/Parapet Walls

File Name DSCN4156.JPG



Description

Defect Other

East sidewalk, spall

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2
Defect
Other

Sidewalks/curbs/Sidewalk and meres

Sidewalks/curbs/Sidewalk and meres

Cast-in-place concrete

East
Fair condition

Spalling

File Name DSCN4157.JPG



Bridge Inspection Form

Struct. ID

03-06 B0400



Description

South expansion joint, spalls, asphalt patch, cracking

Elem Grp/Class

Elem Type

Sub Element

Material Type

Locator

Defect Descript1

Defect Descript2

Defect

Other

File Name DSCN4158.JPG



Description

South approach, pot holes, map cracking

Elem Grp/Class Approaches/Wearing surface

Elem Type
Sub Element
Material Type Asphalt
Locator South
Defect Descript1 Poor condition

Defect Descript2
Defect Potholes
Other

File Name DSCN4159.JPG



Bridge Inspection Form

Struct. ID



03-06 B0400

Description

Pot holes filled, sealed cracks

Elem Grp/Class
Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2
Defect

Decks/Wearing surface

Asphalt
Middle
Fair condition

Cracking

File Name DSCN4160.JPG



Description

Other

North expansion joint, spall

Elem Grp/Class

Elem Type
Sub Element
Material Type
Locator
Defect Descript1
Defect Descript2
Defect
Other

File Name DSCN4164.JPG