

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

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**APPENDIX "G"  
COST FORECASTS**

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**Option 1: REPLACE ENTIRE STRUCTURE****COST FORECAST****9TH STREET BRIDGE****CITY OF OWEN SOUND**

Assumed Interest Rate: 6 %

Assumed Inflation Rate: 3 %

Our File: B-1097

October 25, 2007

| <b>Year</b> | <b>Description</b>       | <b>Cost Incurred</b> | <b>Annual Interest Expense</b> | <b>Cumulative Total</b> |
|-------------|--------------------------|----------------------|--------------------------------|-------------------------|
| 2008        | Replace entire structure | \$1,875,332          |                                | \$1,875,332             |
| 2009        |                          |                      | \$112,520                      | \$1,987,852             |
| 2010        |                          |                      | \$119,271                      | \$2,107,123             |
| 2011        |                          |                      | \$126,427                      | \$2,233,550             |
| 2012        |                          |                      | \$134,013                      | \$2,367,563             |
| 2013        |                          |                      | \$142,054                      | \$2,509,617             |
| 2014        |                          |                      | \$150,577                      | \$2,660,194             |
| 2015        |                          |                      | \$159,612                      | \$2,819,806             |
| 2016        |                          |                      | \$169,188                      | \$2,988,994             |
| 2017        |                          |                      | \$179,340                      | \$3,168,334             |
| 2018        |                          |                      | \$190,100                      | \$3,358,434             |
| 2019        |                          |                      | \$201,506                      | \$3,559,940             |
| 2020        |                          |                      | \$213,596                      | \$3,773,536             |
| 2021        |                          |                      | \$226,412                      | \$3,999,949             |
| 2022        |                          |                      | \$239,997                      | \$4,239,946             |
| 2023        |                          |                      | \$254,397                      | \$4,494,342             |

**Option 2: REMOVE DELAMINATED CONCRETE AND PATCH****COST FORECAST****9TH STREET BRIDGE****CITY OF OWEN SOUND**

Assumed Interest Rate: 6 %

Assumed Inflation Rate: 3 %

Our File: B-1097

October 25, 2007

| <b>Year</b> | <b>Description</b>                    | <b>Cost Incurred</b> | <b>Annual Interest Expense</b> | <b>Cumulative Total</b> |
|-------------|---------------------------------------|----------------------|--------------------------------|-------------------------|
| 2008        | Remove Delaminated Concrete and Patch | \$127,326            |                                | \$127,326               |
| 2009        |                                       |                      | \$7,640                        | \$134,966               |
| 2010        |                                       |                      | \$8,098                        | \$143,063               |
| 2011        |                                       |                      | \$8,584                        | \$151,647               |
| 2012        |                                       |                      | \$9,099                        | \$160,746               |
| 2013        |                                       |                      | \$9,645                        | \$170,391               |
| 2014        | Remove Delaminated Concrete and Patch | \$152,034            | \$10,223                       | \$332,648               |
| 2015        |                                       |                      | \$19,959                       | \$352,607               |
| 2016        |                                       |                      | \$21,156                       | \$373,764               |
| 2017        |                                       |                      | \$22,426                       | \$396,189               |
| 2018        |                                       |                      | \$23,771                       | \$419,961               |
| 2019        |                                       |                      | \$25,198                       | \$445,158               |
| 2020        | Remove Delaminated Concrete and Patch | \$181,536            | \$26,710                       | \$653,404               |
| 2021        |                                       |                      | \$39,204                       | \$692,609               |
| 2022        |                                       |                      | \$41,557                       | \$734,165               |
| 2023        | Replace entire structure              | \$2,808,598          | \$44,050                       | \$3,586,813             |

**Option 3: DECK OVERLAY, WITH ELECTROCHEMICAL TREATMENT ON DECK,  
SOFFIT, PIERS AND BEAMS**

**COST FORECAST**

**9TH STREET BRIDGE**

**CITY OF OWEN SOUND**

Assumed Interest Rate: 6 %

Assumed Inflation Rate: 3 %

Our File: B-1097

October 25, 2007

| Year | Description   | Cost Incurred | Annual Interest Expense | Cumulative Total |
|------|---|---------------|-------------------------|------------------|
| 2008 | Deck Overlay with Electrochemical Treatment on Deck, Soffit and Piers | \$236,266     |                         | \$236,266        |
| 2009 |   |               | \$14,176                | \$250,442        |
| 2010 |   |               | \$15,027                | \$265,468        |
| 2011 |   |               | \$15,928                | \$281,397        |
| 2012 |   |               | \$16,884                | \$298,280        |
| 2013 |   |               | \$17,897                | \$316,177        |
| 2014 |   |               | \$18,971                | \$335,148        |
| 2015 |   |               | \$20,109                | \$355,257        |
| 2016 |   |               | \$21,315                | \$376,572        |
| 2017 |   |               | \$22,594                | \$399,166        |
| 2018 |   |               | \$23,950                | \$423,116        |
| 2019 |   |               | \$25,387                | \$448,503        |
| 2020 |   |               | \$26,910                | \$475,414        |
| 2021 |   |               | \$28,525                | \$503,938        |
| 2022 |   |               | \$30,236                | \$534,175        |
| 2023 | Replace entire structure  | \$2,808,598   | \$32,050                | \$3,374,823      |

**Option 4: PATCH DECK AND TREAT WITH ELECTROCHEMICAL CHLORIDE  
EXTRACTION, WATERPROOFING MEMBRANE, AND ELECTROCHEMICAL  
TREATMENT ON SOFFIT, PIERS AND BEAMS**

**COST FORECAST  
9TH STREET BRIDGE  
CITY OF OWEN SOUND**

Assumed Interest Rate: 6 %  
Assumed Inflation Rate: 3 %

Our File: B-1097

October 25, 2007

| Year | Description   | Cost Incurred | Annual Interest Expense | Cumulative Total |
|------|---|---------------|-------------------------|------------------|
| 2008 | Waterproofing Membrane with Electrochemical Treatment on Deck, Soffit and Piers | \$230,321     |                         | \$230,321        |
| 2009 |   |               | \$13,819                | \$244,140        |
| 2010 |   |               | \$14,648                | \$258,789        |
| 2011 |   |               | \$15,527                | \$274,316        |
| 2012 |   |               | \$16,459                | \$290,775        |
| 2013 |   |               | \$17,446                | \$308,221        |
| 2014 |   |               | \$18,493                | \$326,715        |
| 2015 |   |               | \$19,603                | \$346,318        |
| 2016 |   |               | \$20,779                | \$367,097        |
| 2017 |   |               | \$22,026                | \$389,122        |
| 2018 | Replace Asphalt and Waterproofing Membrane                                      | \$19,487      | \$23,347                | \$431,957        |
| 2019 |   |               | \$25,917                | \$457,874        |
| 2020 |   |               | \$27,472                | \$485,346        |
| 2021 |   |               | \$29,121                | \$514,467        |
| 2022 |   |               | \$30,868                | \$545,335        |
| 2023 | Replace entire structure  | \$2,808,598   | \$32,720                | \$3,386,653      |

**Option 5: REPLACE ENTIRE DECK AND OUTER BEAMS****COST FORECAST****9TH STREET BRIDGE****CITY OF OWEN SOUND**

Assumed Interest Rate: 6 %

Assumed Inflation Rate: 3 %

Our File: B-1097

October 25, 2007

| <b>Year</b> | <b>Description</b>   | <b>Cost Incurred</b> | <b>Annual Interest Expense</b> | <b>Cumulative Total</b> |
|-------------|--|----------------------|--------------------------------|-------------------------|
| 2008        | Replace deck and outer beams, remove delaminated concrete and patch remaining surfaces | \$1,113,751          |                                | \$1,113,751             |
| 2009        |  |                      | \$66,825                       | \$1,180,576             |
| 2010        |  |                      | \$70,835                       | \$1,251,411             |
| 2011        |  |                      | \$75,085                       | \$1,326,495             |
| 2012        |  |                      | \$79,590                       | \$1,406,085             |
| 2013        |  |                      | \$84,365                       | \$1,490,450             |
| 2014        | Remove Delaminated Concrete and Patch  | \$53,732             | \$89,427                       | \$1,633,609             |
| 2015        |  |                      | \$98,017                       | \$1,731,626             |
| 2016        |  |                      | \$103,898                      | \$1,835,524             |
| 2017        |  |                      | \$110,131                      | \$1,945,655             |
| 2018        |  |                      | \$116,739                      | \$2,062,394             |
| 2019        |  |                      | \$123,744                      | \$2,186,138             |
| 2020        | Remove Delaminated Concrete and Patch  | \$64,159             | \$131,168                      | \$2,381,465             |
| 2021        |  |                      | \$142,888                      | \$2,524,353             |
| 2022        |  |                      | \$151,461                      | \$2,675,815             |
| 2023        | Replace inner beams and inner deck surface   | \$1,735,188          | \$160,549                      | \$4,571,551             |