



## Appendix 'L' – Cost Estimates



**THREE GRAND RIVER CROSSINGS EA**  
**City of Brantford**  
**LEVEL 1 FINANCIAL ANALYSIS - 75 YEAR HORIZON**

Discount Rate 3%

**PRESENT VALUE ANALYSIS**

LORNE BRIDGE						
Description YEAR	1A: REHABILITATE		1B: REPLACE - CONVENTIONAL (GIRDERS)		1C: REPLACE - SYMPATHETIC / GATEWAY (ARCH)	
	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value
0	\$ 8,300,000	\$ 8,300,000	\$ 19,000,000	\$ 19,000,000	\$ 37,000,000	\$ 37,000,000
5	\$ 15,000	\$ 12,939	\$ 5,000	\$ 4,313	\$ 5,000	\$ 4,313
10	\$ 15,000	\$ 11,161	\$ 5,000	\$ 3,720	\$ 5,000	\$ 3,720
15	\$ 15,000	\$ 9,628	\$ 5,000	\$ 3,209	\$ 5,000	\$ 3,209
20	\$ 3,700,000	\$ 2,048,600	\$ 5,000	\$ 2,768	\$ 5,000	\$ 2,768
25	\$ 15,000	\$ 7,164	\$ 1,900,000	\$ 907,451	\$ 3,700,000	\$ 1,767,141
30	\$ 15,000	\$ 6,180	\$ 5,000	\$ 2,060	\$ 5,000	\$ 2,060
35	\$ 15,000	\$ 5,331	\$ 5,000	\$ 1,777	\$ 5,000	\$ 1,777
40	\$ 19,000,000	\$ 5,824,580	\$ 5,000	\$ 1,533	\$ 5,000	\$ 1,533
45	\$ 5,000	\$ 1,322	\$ 5,000	\$ 1,322	\$ 5,000	\$ 1,322
50	\$ 5,000	\$ 1,141	\$ 4,800,000	\$ 1,094,914	\$ 9,300,000	\$ 2,121,396
55	\$ 5,000	\$ 984	\$ 5,000	\$ 984	\$ 5,000	\$ 984
60	\$ 5,000	\$ 849	\$ 5,000	\$ 849	\$ 5,000	\$ 849
65	\$ 1,900,000	\$ 278,185	\$ 5,000	\$ 732	\$ 5,000	\$ 732
70	\$ 5,000	\$ 631	\$ 5,000	\$ 631	\$ 5,000	\$ 631
75	\$ 5,000	\$ 545	\$ 19,000,000	\$ 2,069,959	\$ 37,000,000	\$ 4,030,973
<b>TOTAL</b>	<b>\$ 33,020,000</b>	<b>\$ 16,509,240</b>	<b>\$ 44,760,000</b>	<b>\$ 23,096,223</b>	<b>\$ 87,060,000</b>	<b>\$ 44,943,408</b>

Note:  
 -Costs do not include HST, but include 20% Contingency and 15% Engineering Fees  
 -Level 1 Financial Analysis completed in accordance with the MTO's Structural Financial Analysis Manual (SO-11, 1993)

**THREE GRAND RIVER CROSSINGS EA**  
**City of Brantford**  
**LEVEL 1 FINANCIAL ANALYSIS - 75 YEAR HORIZON**

Discount Rate 3%

**PRESENT VALUE ANALYSIS**

BRANT'S CROSSING BRIDGE												
Description YEAR	2A: DECOMMISSION AND CLOSE (LEAVE IN PLACE)		2B: DECOMMISSION AND REMOVE		2Ci: REHABILITATE (10-20 YEAR SERVICE LIFE)		2Cii: REHABILITATE (15-30 YEAR SERVICE LIFE)		2Ciii: REHABILITATE (15-30 YEAR SERVICE LIFE INCLUDING RAISING SUPERSTRUCTURE)		2D: REPLACE	
	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value
0	\$ 300,000	\$ 300,000	\$ 680,000	\$ 680,000	\$ 730,000	\$ 730,000	\$ 1,020,000	\$ 1,020,000	\$ 2,250,000	\$ 2,250,000	\$ 3,700,000	\$ 3,700,000
5	\$ 5,000	\$ 4,313	\$ -	\$ -	\$ 15,000	\$ 12,939	\$ 15,000	\$ 12,939	\$ 15,000	\$ 12,939	\$ 5,000	\$ 4,313
10	\$ 5,000	\$ 3,720	\$ -	\$ -	\$ 15,000	\$ 11,161	\$ 15,000	\$ 11,161	\$ 15,000	\$ 11,161	\$ 5,000	\$ 3,720
15	\$ 60,000	\$ 38,512	\$ -	\$ -	\$ 15,000	\$ 9,628	\$ 250,000	\$ 160,465	\$ 250,000	\$ 160,465	\$ 75,000	\$ 48,140
20	\$ 5,000	\$ 2,768	\$ -	\$ -	\$ 4,500,000	\$ 2,491,541	\$ 15,000	\$ 8,305	\$ 15,000	\$ 8,305	\$ 5,000	\$ 2,768
25	\$ 5,000	\$ 2,388	\$ -	\$ -	\$ 5,000	\$ 2,388	\$ 15,000	\$ 7,164	\$ 15,000	\$ 7,164	\$ 300,000	\$ 143,282
30	\$ 600,000	\$ 247,192	\$ -	\$ -	\$ 5,000	\$ 2,060	\$ 4,500,000	\$ 1,853,940	\$ 4,500,000	\$ 1,853,940	\$ 5,000	\$ 2,060
35	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 26,654	\$ 5,000	\$ 1,777	\$ 5,000	\$ 1,777	\$ 5,000	\$ 1,777
40	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 1,533	\$ 5,000	\$ 1,533	\$ 5,000	\$ 1,533	\$ 5,000	\$ 1,533
45	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 132,219	\$ 75,000	\$ 19,833	\$ 75,000	\$ 19,833	\$ 5,000	\$ 1,322
50	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 1,141	\$ 5,000	\$ 1,141	\$ 5,000	\$ 1,141	\$ 1,000,000	\$ 228,107
55	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 984	\$ 500,000	\$ 98,384	\$ 500,000	\$ 98,384	\$ 5,000	\$ 984
60	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 849	\$ 5,000	\$ 849	\$ 5,000	\$ 849	\$ 5,000	\$ 849
65	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 732	\$ 5,000	\$ 732	\$ 5,000	\$ 732	\$ 5,000	\$ 732
70	\$ -	\$ -	\$ -	\$ -	\$ 1,100,000	\$ 138,927	\$ 5,000	\$ 631	\$ 5,000	\$ 631	\$ 5,000	\$ 631
75	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 545	\$ 5,000	\$ 545	\$ 5,000	\$ 545	\$ 500,000	\$ 54,473
<b>TOTAL</b>	<b>\$ 980,000</b>	<b>\$ 598,894</b>	<b>\$ 680,000</b>	<b>\$ 680,000</b>	<b>\$ 6,990,000</b>	<b>\$ 3,563,300</b>	<b>\$ 6,440,000</b>	<b>\$ 3,199,399</b>	<b>\$ 7,670,000</b>	<b>\$ 4,429,399</b>	<b>\$ 5,630,000</b>	<b>\$ 4,194,691</b>

Note:  
 -Costs do not include HST, but include 20% Contingency and 15% Engineering Fees  
 -Level 1 Financial Analysis completed in accordance with the MTO's Structural Financial Analysis Manual (SO-11, 1993)

**THREE GRAND RIVER CROSSINGS EA**  
**City of Brantford**  
**LEVEL 1 FINANCIAL ANALYSIS - 75 YEAR HORIZON**

Discount Rate 3%

**PRESENT VALUE ANALYSIS**

TH&B CROSSING BRIDGE												
Description YEAR	3A: DECOMMISSION AND CLOSE (LEAVE IN PLACE)		3B: DECOMMISSION AND REMOVE		3Ci: REHABILITATE WITH EVENTUAL REMOVAL		3Cii: REHABILITATE (15-30 YEAR SERVICE LIFE)		3Ciii: REHABILITATE (15-30 YEAR SERVICE LIFE INCLUDING RAISING SUPERSTRUCTURE)		3D: REPLACE	
	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Net Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value
0	\$ 300,000	\$ 300,000	\$ 690,000	\$ 690,000	\$ 300,000	\$ 300,000	\$ 620,000	\$ 620,000	\$ 1,870,000	\$ 1,870,000	\$ 3,190,000	\$ 3,190,000
5	\$ 5,000	\$ 4,313	\$ -	\$ -	\$ 15,000	\$ 12,939	\$ 15,000	\$ 12,939	\$ 15,000	\$ 12,939	\$ 5,000	\$ 4,313
10	\$ 5,000	\$ 3,720	\$ -	\$ -	\$ 15,000	\$ 11,161	\$ 15,000	\$ 11,161	\$ 15,000	\$ 11,161	\$ 5,000	\$ 3,720
15	\$ 60,000	\$ 38,512	\$ -	\$ -	\$ 690,000	\$ 442,885	\$ 60,000	\$ 38,512	\$ 250,000	\$ 160,465	\$ 75,000	\$ 48,140
20	\$ 5,000	\$ 2,768	\$ -	\$ -	\$ -	\$ -	\$ 15,000	\$ 8,305	\$ 15,000	\$ 8,305	\$ 5,000	\$ 2,768
25	\$ 5,000	\$ 2,388	\$ -	\$ -	\$ -	\$ -	\$ 15,000	\$ 7,164	\$ 15,000	\$ 7,164	\$ 300,000	\$ 143,282
30	\$ 600,000	\$ 247,192	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ 411,987	\$ 1,000,000	\$ 411,987	\$ 5,000	\$ 2,060
35	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 1,777	\$ 5,000	\$ 1,777	\$ 5,000	\$ 1,777
40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 1,533	\$ 5,000	\$ 1,533	\$ 5,000	\$ 1,533
45	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 19,833	\$ 75,000	\$ 19,833	\$ 5,000	\$ 1,322
50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 1,141	\$ 5,000	\$ 1,141	\$ 4,500,000	\$ 1,026,482
55	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,500,000	\$ 885,452	\$ 4,500,000	\$ 885,452	\$ 5,000	\$ 984
60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 849	\$ 5,000	\$ 849	\$ 5,000	\$ 849
65	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 732	\$ 5,000	\$ 732	\$ 5,000	\$ 732
70	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 631	\$ 5,000	\$ 631	\$ 5,000	\$ 631
75	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 545	\$ 5,000	\$ 545	\$ 5,000	\$ 545
<b>TOTAL</b>	\$ 980,000	\$ 598,894	\$ 690,000	\$ 690,000	\$ 1,020,000	\$ 766,985	\$ 6,350,000	\$ 2,022,561	\$ 7,790,000	\$ 3,394,514	\$ 8,125,000	\$ 4,429,138

Note:  
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**THREE GRAND RIVER CROSSINGS EA**  
**City of Brantford**  
**LEVEL 1 FINANCIAL ANALYSIS - 75 YEAR HORIZON**

Discount Rate      3%

**PRESENT VALUE ANALYSIS**

NEW PEDESTRIAN CROSSING				
Description	4A: DO NOT CONSTRUCT NEW CROSSING		4B: CONSTRUCT NEW CROSSING	
YEAR	Cost (2021 Dollars)	Present Value	Cost (2021 Dollars)	Present Value
0	\$ -	\$ -	\$ 4,500,000	\$ 4,500,000
5	\$ -	\$ -	\$ 5,000	\$ 4,313
10	\$ -	\$ -	\$ 5,000	\$ 3,720
15	\$ -	\$ -	\$ 5,000	\$ 3,209
20	\$ -	\$ -	\$ 5,000	\$ 2,768
25	\$ -	\$ -	\$ 500,000	\$ 238,803
30	\$ -	\$ -	\$ 5,000	\$ 2,060
35	\$ -	\$ -	\$ 5,000	\$ 1,777
40	\$ -	\$ -	\$ 5,000	\$ 1,533
45	\$ -	\$ -	\$ 5,000	\$ 1,322
50	\$ -	\$ -	\$ 1,100,000	\$ 250,918
55	\$ -	\$ -	\$ 5,000	\$ 984
60	\$ -	\$ -	\$ 5,000	\$ 849
65	\$ -	\$ -	\$ 5,000	\$ 732
70	\$ -	\$ -	\$ 5,000	\$ 631
75	\$ -	\$ -	\$ 4,500,000	\$ 490,253
<b>TOTAL</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,660,000</b>	<b>\$ 5,503,873</b>

Note:

- Costs do not include HST, but include 20% Contingency and 15% Engineering Fees
- Level 1 Financial Analysis completed in accordance with the MTO's Structural Financial Analysis Manual (SO-11, 1993)