

**APPENDIX M**

***Cost Estimate***

## **Detailed Costing Spreadsheets**

**Waterdown Road, Mountain Brow Road, Mid-Block  
Road**

<b>ROAD NAME:</b>	Waterdown Road - 4 Lane	<b>Imp. Type:</b>	4U-NC & 4U-RC
<b>From:</b>	Craven Avenue	<b>To:</b>	Flatt Road
Road Length (m):	560	ROW Width (m):	30
Number of Lanes:	4	Lane Width (m):	3.3
Flush Median Width (m):	0	Raised Median Width (m):	0

**ASSUMED FULL DEPTH RECONSTRUCTION OF WATERDOWN ROAD SINCE GEOTECH INVESTIGATION NOT COMPLETE AT THIS TIME**

<b>CROSS-SECTION FOR LEFT SIDE:</b>		<b>CROSS-SECTION FOR RIGHT SIDE:</b>	
Cross-Section (Rural/Urban):	URBAN	Cross-Section (Rural/Urban):	URBAN
Paved Road Width (m):	6.6	Paved Road Width (m):	6.6
Paved Shoulder Width (m):	0	Paved Shoulder Width (m):	0
Granular Shoulder Width (m):	0	Granular Shoulder Width (m):	0
Sidewalk Width (m):	0	Sidewalk Width (m):	0
Bike Path Width (m):	0	Bike Path Width (m):	0
Street Lighting (Y/N):	Y	Street Lighting (Y/N):	Y

No.	Item	Unit	Estimated Quantity	Unit Price	Total
<b>A ROADWORKS &amp; DRAINAGE</b>					
2	Remove Ex. Asphalt (Full Depth)	m <sup>2</sup>	4200	\$6.50	\$27,300.00
11	Concrete Splash Pad (0.3 m width, 150 mm depth)	m <sup>2</sup>		\$50.00	\$0.00
21	150 mm Subdrain	m	1120	\$26.00	\$29,200.00
35	Entrance Modifications/Regrading	L.S.	3	\$15,000.00	\$45,000.00
4	Earth Excavation	m <sup>3</sup>	5984	\$15.00	\$89,800.00
6	Granular A (150 mm depth)	tonnes	3039	\$22.00	\$66,900.00
7	Granular B (450 mm depth)	tonnes	7356	\$19.00	\$139,800.00
9	Surface Course Asphalt (40 mm depth)	tonnes	820	\$90.00	\$73,800.00
10	Base Course Asphalt (90 mm depth)	tonnes	1845	\$81.00	\$149,500.00
12	Concrete Curb and Gutter (All types)	m	1120	\$55.00	\$61,600.00
13	Sod c/w 100 mm Topsoil	m <sup>2</sup>	3958	\$6.50	\$25,800.00
14	Seeding c/w 100 mm Topsoil	m <sup>2</sup>	0	\$5.00	\$0.00
17	300 mm Storm Sewer Laterals	m	160	\$250.00	\$40,000.00
18	375 - 600 mm Storm Sewer	m	560	\$375.00	\$210,000.00
22	Single Catchbasins	ea.	24	\$2,000.00	\$48,000.00
24	Storm Maintenance Holes/MHCBs	ea.	6	\$4,700.00	\$28,200.00
	SWM Pond	LS	1	\$100,000.00	\$100,000.00
36	Minor Roadworks & Drainage Items			15.0%	\$155,300.00
	<b>Subtotal Roadworks &amp; Drainage</b>				<b>\$1,290,200.00</b>
<b>B STRUCTURES</b>					
44A	Retaining Walls (RSS)	m <sup>2</sup>	520	\$700.00	\$364,000.00
	<b>Subtotal Structures</b>				<b>\$364,000.00</b>
<b>C LANDSCAPING/MITIGATION</b>					
45	Landscaping Component	LS	1	\$238,090.00	\$238,090.00
46	Mitigation and Compensation for ESA Vegetation Removal	m <sup>2</sup>	7800	\$15.00	\$117,000.00
	<b>Subtotal Landscaping/Mitigation</b>				<b>\$355,090.00</b>
<b>D ELECTRICAL</b>					
47	Traffic Signalization (per intersection)	ea.		\$200,000.00	\$0.00
48	Modifications to Ex. Traffic Signalization (per intersection)	ea.	0	\$120,000.00	\$0.00
49	Street Lighting (per pole)	ea.	22.4	\$5,000.00	\$112,000.00
	<b>Subtotal Electrical</b>				<b>\$112,000.00</b>
<b>E PROPERTY</b>					
50	Existing Residential Lands	acre	0.00	\$750,000.00	\$0.00
51	Vacant Lands	acre	0.00	\$600,000.00	\$0.00
52	Flood Plain Lands	acre	0.00	\$10,000.00	\$0.00
53	Agricultural Lands	acre	0.00	\$125,000.00	\$0.00
54	Total Acquisitions	acre	0.40	\$750,000.00	\$300,000.00
	<b>Subtotal Property</b>				<b>\$300,000.00</b>
<b>F MISCILLANEOUS/SPECIAL REQUIREMENTS</b>					
56	Asphalt Path	m <sup>2</sup>	2085	\$53.00	\$110,600.00
57	Concrete Sidewalk	m <sup>2</sup>	61	\$60.00	\$3,700.00
	<b>Subtotal Miscellaneous/Special Requirements</b>				<b>\$114,300.00</b>
<b>G UTILITIES &amp; SERVICES</b>					
1	Bell	L.S.	1	N/A	N/A
2	Hydro	L.S.	1	N/A	N/A
3	Gas	L.S.	1	N/A	N/A
4	Cable	L.S.	1	N/A	N/A
5	Oil Pipelines	L.S.	1	N/A	N/A
6	Hydro One	L.S.	1	N/A	N/A
54	Utility Pole (minor)	ea.	0	\$2,000.00	\$0.00
55	Utility Pole (major)	ea.	0	\$5,000.00	\$0.00
	<b>Subtotal Utilities (allowance)</b>				<b>\$111,800.00</b>
<b>H CONTINGENCY</b>					
	Subtotal All Items (excluding Property)				\$2,347,400.00
	<b>Contingency 10%</b>				<b>\$234,800.00</b>
<b>I ENGINEERING</b>					
	Subtotal All Items (excluding Property)				\$2,347,400.00
	<b>Engineering 10%</b>				<b>\$234,800.00</b>
<b>J</b>	<b>TOTAL ESTIMATED COST (excluding GST)</b>				<b>\$3,117,000.00</b>

<b>ROAD NAME:</b>	Waterdown Road - 4 Lane	<b>Imp. Type:</b>	4U-NC & 4U-RC
<b>From:</b>	Flatt Road	<b>To:</b>	North of Paletta Development
Road Length (m):	720	ROW Width (m):	30
Number of Lanes:	4	Lane Width (m):	3.3
Flush Median Width (m):	0	Raised Median Width (m):	0

**ASSUMED FULL DEPTH RECONSTRUCTION OF WATERDOWN ROAD SINCE GEOTECH INVESTIGATION NOT COMPLETE AT THIS TIME**

<b>CROSS-SECTION FOR LEFT SIDE:</b>		<b>CROSS-SECTION FOR RIGHT SIDE:</b>	
Cross-Section (Rural/Urban):	URBAN	Cross-Section (Rural/Urban):	URBAN
Paved Road Width (m):	6.6	Paved Road Width (m):	6.6
Paved Shoulder Width (m):	0	Paved Shoulder Width (m):	0
Granular Shoulder Width (m):	0	Granular Shoulder Width (m):	0
Sidewalk Width (m):	0	Sidewalk Width (m):	0
Bike Path Width (m):	0	Bike Path Width (m):	0
Street Lighting (Y/N):	Y	Street Lighting (Y/N):	Y

No.	Item	Unit	Estimated Quantity	Unit Price	Total
<b>A ROADWORKS &amp; DRAINAGE</b>					
2	Remove Ex. Asphalt (Full Depth)	m <sup>2</sup>	5400	\$6.50	\$35,100.00
11	Concrete Splash Pad (0.3 m width, 150 mm depth)	m <sup>2</sup>		\$50.00	\$0.00
21	150 mm Subdrain	m	1440	\$26.00	\$37,500.00
35	Entrance Modifications/Regrading	L.S.	0	\$15,000.00	\$0.00
4	Earth Excavation	m <sup>3</sup>	7011	\$15.00	\$105,200.00
6	Granular A (150 mm depth)	tonnes	3574	\$22.00	\$78,700.00
7	Granular B (450 mm depth)	tonnes	8683	\$19.00	\$165,000.00
9	Surface Course Asphalt (40 mm depth)	tonnes	962	\$90.00	\$86,600.00
10	Base Course Asphalt (90 mm depth)	tonnes	2164	\$81.00	\$175,300.00
12	Concrete Curb and Gutter (All types)	m	1440	\$55.00	\$79,200.00
13	Sod c/w 100 mm Topsoil	m <sup>2</sup>	9369	\$6.50	\$60,900.00
14	Seeding c/w 100 mm Topsoil	m <sup>2</sup>	0	\$5.00	\$0.00
17	300 mm Storm Sewer Laterals	m	198	\$250.00	\$49,500.00
18	375 - 600 mm Storm Sewer	m	720	\$375.00	\$270,000.00
22	Single Catchbasins	ea.	30	\$2,000.00	\$60,000.00
24	Storm Maintenance Holes/MHCBs	ea.	8	\$4,700.00	\$37,600.00
36	Minor Roadworks & Drainage Items			15.0%	\$186,100.00
<b>Subtotal Roadworks &amp; Drainage</b>					<b>\$1,426,700.00</b>
<b>B STRUCTURES</b>					
44A	Retaining Walls (RSS)	m <sup>2</sup>		\$700.00	\$0.00
<b>Subtotal Structures</b>					<b>\$0.00</b>
<b>C LANDSCAPING/MITIGATION</b>					
45	Landscaping Component	LS	1	\$306,116.00	\$306,116.00
46	Mitigation and Compensation for Watercourse Crossings	m	0	\$1,000.00	\$0.00
<b>Subtotal Landscaping/Mitigation</b>					<b>\$306,116.00</b>
<b>D ELECTRICAL</b>					
47	Traffic Signalization (per intersection)	ea.		\$200,000.00	\$0.00
48	Modifications to Ex. Traffic Signalization (per intersection)	ea.	0	\$120,000.00	\$0.00
49	Street Lighting (per pole)	ea.	28.8	\$5,000.00	\$144,000.00
<b>Subtotal Electrical</b>					<b>\$144,000.00</b>
<b>E PROPERTY</b>					
50	Existing Residential Lands	acre	0.16	\$750,000.00	\$120,500.00
51	Vacant Lands	acre	0.00	\$600,000.00	\$0.00
52	Flood Plain Lands	acre	0.00	\$10,000.00	\$0.00
53	Agricultural Lands	acre	0.00	\$125,000.00	\$0.00
55	Eagle Heights Development Lands	acre	1.00	\$650,000.00	\$650,000.00
<b>Subtotal Property</b>					<b>\$770,500.00</b>
<b>F MISCILLANEOUS/SPECIAL REQUIREMENTS</b>					
56	Asphalt Path	m <sup>2</sup>	2880	\$53.00	\$152,700.00
57	Concrete Sidewalk	m <sup>2</sup>	815	\$60.00	\$48,900.00
<b>Subtotal Miscellaneous/Special Requirements</b>					<b>\$201,600.00</b>
<b>G UTILITIES &amp; SERVICES</b>					
1	Bell	L.S.	1	N/A	N/A
2	Hydro	L.S.	1	N/A	N/A
3	Gas	L.S.	1	N/A	N/A
4	Cable	L.S.	1	N/A	N/A
5	Oil Pipelines	L.S.	1	N/A	N/A
6	Hydro One	L.S.	1	N/A	N/A
54	Utility Pole (minor)	ea.	0	\$2,000.00	\$0.00
55	Utility Pole (major)	ea.	0	\$5,000.00	\$0.00
<b>Subtotal Utilities (allowance)</b>					<b>\$104,000.00</b>
<b>H CONTINGENCY</b>					
Subtotal All Items (excluding Property)					\$2,182,500.00
<b>Contingency 10%</b>					<b>\$218,300.00</b>
<b>I ENGINEERING</b>					
Subtotal All Items (excluding Property)					\$2,182,500.00
<b>Engineering 10%</b>					<b>\$218,300.00</b>
<b>J TOTAL ESTIMATED COST (excluding GST)</b>					<b>\$3,389,600.00</b>

<b>ROAD NAME:</b>	Waterdown Road - 4 Lane	<b>Imp. Type:</b>	4U-NC & 4U-RC
<b>From:</b>	North of Paletta Development	<b>To:</b>	Burlington City Limits
Road Length (m):	900	ROW Width (m):	30
Number of Lanes:	4	Lane Width (m):	3.3
Flush Median Width (m):	0	Raised Median Width (m):	0
<b>ASSUMED FULL DEPTH RECONSTRUCTION OF WATERDOWN ROAD SINCE GEOTECH INVESTIGATION NOT COMPLETE AT THIS TIME</b>			
<b>CROSS-SECTION FOR LEFT SIDE:</b>		<b>CROSS-SECTION FOR RIGHT SIDE:</b>	
Cross-Section (Rural/Urban):	URBAN	Cross-Section (Rural/Urban):	URBAN
Paved Road Width (m):	6.6	Paved Road Width (m):	6.6
Paved Shoulder Width (m):	0	Paved Shoulder Width (m):	0
Granular Shoulder Width (m):	0	Granular Shoulder Width (m):	0
Sidewalk Width (m):	0	Sidewalk Width (m):	0
Bike Path Width (m):	0	Bike Path Width (m):	0
Street Lighting (Y/N):	Y	Street Lighting (Y/N):	Y

No.	Item	Unit	Estimated Quantity	Unit Price	Total
<b>A</b>	<b>ROADWORKS &amp; DRAINAGE</b>				
2	Remove Ex. Asphalt (Full Depth)	m <sup>2</sup>	6750	\$6.50	\$43,900.00
11	Concrete Splash Pad (0.3 m width, 150 mm depth)	m <sup>2</sup>		\$50.00	\$0.00
21	150 mm Subdrain	m	1800	\$26.00	\$46,800.00
35	Entrance Modifications/Regrading	L.S.	24	\$15,000.00	\$360,000.00
4	Earth Excavation	m <sup>3</sup>	11797	\$15.00	\$177,000.00
6	Granular A (150 mm depth)	tonnes	4418	\$22.00	\$97,200.00
7	Granular B (450 mm depth)	tonnes	10738	\$19.00	\$204,100.00
9	Surface Course Asphalt (40 mm depth)	tonnes	1188	\$90.00	\$107,000.00
10	Base Course Asphalt (90 mm depth)	tonnes	2674	\$81.00	\$216,600.00
12	Concrete Curb and Gutter (All types)	m	1800	\$55.00	\$99,000.00
13	Sod c/w 100 mm Topsoil	m <sup>2</sup>	9189	\$6.50	\$59,800.00
14	Seeding c/w 100 mm Topsoil	m <sup>2</sup>	0	\$5.00	\$0.00
17	300 mm Storm Sewer Laterals	m	238	\$250.00	\$59,500.00
18	375 - 600 mm Storm Sewer	m	900	\$375.00	\$337,500.00
22	Single Catchbasins	ea.	36	\$2,000.00	\$72,000.00
24	Storm Maintenance Holes/MHCBs	ea.	9	\$4,700.00	\$42,300.00
36	Minor Roadworks & Drainage Items			15.0%	\$288,500.00
	<b>Subtotal Roadworks &amp; Drainage</b>				<b>\$2,211,200.00</b>
<b>B</b>	<b>STRUCTURES</b>				
44A	Retaining Walls (RSS)	m <sup>2</sup>		\$700.00	\$0.00
	<b>Subtotal Structures</b>				<b>\$0.00</b>
<b>C</b>	<b>LANDSCAPING/MITIGATION</b>				
45	Landscaping Component	LS	1	\$382,644.00	\$382,644.00
46	Mitigation and Compensation for Watercourse Crossings	m	0	\$1,000.00	\$0.00
	<b>Subtotal Landscaping/Mitigation</b>				<b>\$382,644.00</b>
<b>D</b>	<b>ELECTRICAL</b>				
47	Traffic Signalization (per intersection)	ea.		\$200,000.00	\$0.00
48	Modifications to Ex. Traffic Signalization (per intersection)	ea.	0	\$120,000.00	\$0.00
49	Street Lighting (per pole)	ea.	36	\$5,000.00	\$180,000.00
	<b>Subtotal Electrical</b>				<b>\$180,000.00</b>
<b>E</b>	<b>PROPERTY</b>				
50	Existing Residential Lands	acre	1.03	\$750,000.00	\$775,100.00
51	Vacant Lands	acre	0.00	\$600,000.00	\$0.00
52	Flood Plain Lands	acre	0.00	\$10,000.00	\$0.00
53	Agricultural Lands	acre	0.00	\$125,000.00	\$0.00
54	Total Acquisition	acre	0.60	\$750,000.00	\$450,000.00
56	2000 Waterdown Road Access Arrangement	LS	1.00	\$300,000.00	\$300,000.00
	<b>Subtotal Property</b>				<b>\$1,525,100.00</b>
	<b>MISCELLANEOUS/SPECIAL REQUIREMENTS</b>				
<b>F</b>	Asphalt Path	m <sup>2</sup>	3231	\$53.00	\$171,300.00
56	Concrete Sidewalk	m <sup>2</sup>		\$60.00	\$0.00
57	<b>Subtotal Miscellaneous/Special Requirements</b>				<b>\$171,300.00</b>
	<b>UTILITIES &amp; SERVICES</b>				
<b>G</b>	Bell	L.S.	1	N/A	N/A
1	Hydro	L.S.	1	N/A	N/A
2	Gas	L.S.	1	N/A	N/A
3	Cable	L.S.	1	N/A	N/A
4	Oil Pipelines	L.S.	1	N/A	N/A
5	Hydro One	L.S.	1	N/A	N/A
6	Utility Pole (minor)	ea.	0	\$10,000.00	\$0.00
1	Utility Pole (major)	ea.	0	\$6.50	\$0.00
2	<b>Subtotal Utilities (allowance)</b>				<b>\$147,300.00</b>
	<b>CONTINGENCY</b>				
<b>H</b>	Subtotal All Items (excluding Property)				\$3,092,500.00
	<b>Contingency 10%</b>				<b>\$309,300.00</b>
	<b>ENGINEERING</b>				
<b>I</b>	Subtotal All Items (excluding Property)				\$3,092,500.00
	<b>Engineering 10%</b>				<b>\$309,300.00</b>
	<b>TOTAL ESTIMATED COST (excluding GST)</b>				<b>\$5,236,200.00</b>
<b>J</b>					

<b>ROAD NAME:</b>	Waterdown Road - 4 Lane	<b>Imp. Type:</b>	4U-NC & 4U-RC
<b>From:</b>	Burlington City Limits	<b>To:</b>	Mountain Brow Rd (Inc. intersection)
Road Length (m):	280	ROW Width (m):	30
Number of Lanes:	4	Lane Width (m):	3.3
Flush Median Width (m):	0	Raised Median Width (m):	0

**ASSUMED FULL DEPTH RECONSTRUCTION OF WATERDOWN ROAD SINCE GEOTECH INVESTIGATION NOT COMPLETE AT THIS TIME**

<b>CROSS-SECTION FOR LEFT SIDE:</b>		<b>CROSS-SECTION FOR RIGHT SIDE:</b>	
Cross-Section (Rural/Urban):	URBAN	Cross-Section (Rural/Urban):	URBAN
Paved Road Width (m):	6.6	Paved Road Width (m):	6.6
Paved Shoulder Width (m):	0	Paved Shoulder Width (m):	0
Granular Shoulder Width (m):	0	Granular Shoulder Width (m):	0
Sidewalk Width (m):	0	Sidewalk Width (m):	0
Bike Path Width (m):	0	Bike Path Width (m):	0
Street Lighting (Y/N):	Y	Street Lighting (Y/N):	Y

No.	Item	Unit	Estimated Quantity	Unit Price	Total
<b>A ROADWORKS &amp; DRAINAGE</b>					
2	Remove Ex. Asphalt (Full Depth)	m <sup>2</sup>	4375	\$6.50	\$28,500.00
11	Concrete Splash Pad (0.3 m width, 150 mm depth)	m <sup>2</sup>		\$50.00	\$0.00
21	150 mm Subdrain	m	560	\$26.00	\$14,600.00
35	Entrance Modifications/Regrading	L.S.	4	\$15,000.00	\$60,000.00
4	Earth Excavation	m <sup>3</sup>	4888	\$15.00	\$73,400.00
6	Granular A (150 mm depth)	tonnes	1083	\$22.00	\$23,900.00
7	Granular B (450 mm depth)	tonnes	2633	\$19.00	\$50,100.00
9	Surface Course Asphalt (40 mm depth)	tonnes	291	\$90.00	\$26,200.00
10	Base Course Asphalt (90 mm depth)	tonnes	654	\$81.00	\$53,000.00
12	Concrete Curb and Gutter (All types)	m	560	\$55.00	\$30,800.00
13	Sod c/w 100 mm Topsoil	m <sup>2</sup>	1377	\$6.50	\$9,000.00
14	Seeding c/w 100 mm Topsoil	m <sup>2</sup>	0	\$5.00	\$0.00
17	300 mm Storm Sewer Laterals	m	80	\$250.00	\$20,000.00
18	375 - 600 mm Storm Sewer	m	280	\$375.00	\$105,000.00
22	Single Catchbasins	ea.	12	\$2,000.00	\$24,000.00
24	Storm Maintenance Holes/MHCBs	ea.	3	\$4,700.00	\$14,100.00
36	Minor Roadworks & Drainage Items			15.0%	\$79,900.00
<b>Subtotal Roadworks &amp; Drainage</b>					<b>\$612,500.00</b>
<b>B STRUCTURES</b>					
44A	Retaining Walls (RSS)	m <sup>2</sup>	260	\$700.00	\$182,000.00
<b>Subtotal Structures</b>					<b>\$182,000.00</b>
<b>C LANDSCAPING/MITIGATION</b>					
45	Landscaping Component	LS	1	\$119,050.00	\$119,050.00
46	Mitigation and Compensation for Watercourse Crossings	m	0	\$1,000.00	\$0.00
<b>Subtotal Landscaping/Mitigation</b>					<b>\$119,050.00</b>
<b>D ELECTRICAL</b>					
47	Traffic Signalization (per intersection)	ea.	1	\$200,000.00	\$200,000.00
48	Modifications to Ex. Traffic Signalization (per intersection)	ea.	0	\$120,000.00	\$0.00
49	Street Lighting (per pole)	ea.	11.2	\$5,000.00	\$56,000.00
<b>Subtotal Electrical</b>					<b>\$256,000.00</b>
<b>E PROPERTY</b>					
50	Existing Residential Lands	acre	0.15	\$750,000.00	\$114,200.00
51	Vacant Lands	acre	0.00	\$600,000.00	\$0.00
52	Flood Plain Lands	acre	0.00	\$10,000.00	\$0.00
53	Agricultural Lands	acre	0.00	\$125,000.00	\$0.00
<b>Subtotal Property</b>					<b>\$114,200.00</b>
<b>F MISCILLANEOUS/SPECIAL REQUIREMENTS</b>					
56	Asphalt Path	m <sup>2</sup>	616	\$53.00	\$32,700.00
57	Concrete Sidewalk	m <sup>2</sup>		\$60.00	\$0.00
<b>Subtotal Miscellaneous/Special Requirements</b>					<b>\$32,700.00</b>
<b>G UTILITIES &amp; SERVICES</b>					
1	Bell	L.S.	1	N/A	N/A
2	Hydro	L.S.	1	N/A	N/A
3	Gas	L.S.	1	N/A	N/A
4	Cable	L.S.	1	N/A	N/A
5	Oil Pipelines	L.S.	1	N/A	N/A
6	Hydro One	L.S.	1	N/A	N/A
54	Utility Pole (minor)	ea.	0	\$2,000.00	\$0.00
55	Utility Pole (major)	ea.	0	\$5,000.00	\$0.00
<b>Subtotal Utilities (allowance)</b>					<b>\$60,200.00</b>
<b>H CONTINGENCY</b>					
Subtotal All Items (excluding Property)					\$1,262,500.00
<b>Contingency 10%</b>					<b>\$126,300.00</b>
<b>I ENGINEERING</b>					
Subtotal All Items (excluding Property)					\$1,262,500.00
<b>Engineering 10%</b>					<b>\$126,300.00</b>
<b>J TOTAL ESTIMATED COST (excluding GST)</b>					<b>\$1,629,300.00</b>

<b>ROAD NAME:</b>	Waterdown Road - 4 Lane	Imp. Type: 4U-NC & 4U-RC
<b>From:</b>	Craven Avenue	<b>To:</b> Mountain Brow Road
Road Length (m):	2460	ROW Width (m): 30
Number of Lanes:	4	Lane Width (m): 3.3
Flush Median Width (m):	0	Raised Median Width (m): 0
<b>ASSUMED FULL DEPTH RECONSTRUCTION OF WATERDOWN ROAD SINCE GEOTECH INVESTIGATION NOT COMPLETE AT THIS TIME</b>		
<b>CROSS-SECTION FOR LEFT SIDE:</b>		<b>CROSS-SECTION FOR RIGHT SIDE:</b>
Cross-Section (Rural/Urban):	URBAN	Cross-Section (Rural/Urban): URBAN
Paved Road Width (m):	6.6	Paved Road Width (m): 6.6
Paved Shoulder Width (m):	0	Paved Shoulder Width (m): 0
Granular Shoulder Width (m):	0	Granular Shoulder Width (m): 0
Sidewalk Width (m):	0	Sidewalk Width (m): 0
Bike Path Width (m):	0	Bike Path Width (m): 0
Street Lighting (Y/N):	Y	Street Lighting (Y/N): Y

No.	Item	Unit	Estimated Quantity	Unit Price	Total
<b>A ROADWORKS &amp; DRAINAGE</b>					
2	Remove Ex. Asphalt (Full Depth)	m <sup>2</sup>	20725	\$6.50	\$134,800.00
11	Concrete Splash Pad (0.3 m width, 150 mm depth)	m <sup>2</sup>		\$50.00	\$0.00
21	150 mm Subdrain	m	4920	\$26.00	\$128,000.00
35	Entrance Modifications/Regrading	L.S.	31	\$15,000.00	\$465,000.00
4	Earth Excavation	m <sup>3</sup>	29680	\$15.00	\$445,200.00
6	Granular A (150 mm depth)	tonnes	12114	\$22.00	\$266,600.00
7	Granular B (450 mm depth)	tonnes	29410	\$19.00	\$558,800.00
9	Surface Course Asphalt (40 mm depth)	tonnes	3261	\$90.00	\$293,500.00
10	Base Course Asphalt (90 mm depth)	tonnes	7337	\$81.00	\$594,300.00
12	Concrete Curb and Gutter (All types)	m	4920	\$55.00	\$270,600.00
13	Sod c/w 100 mm Topsoil	m <sup>2</sup>	23893	\$6.50	\$155,400.00
14	Seeding c/w 100 mm Topsoil	m <sup>2</sup>	0	\$5.00	\$0.00
17	300 mm Storm Sewer Laterals	m	676	\$250.00	\$169,000.00
18	375 - 600 mm Storm Sewer	m	2460	\$375.00	\$922,500.00
22	Single Catchbasins	ea.	102	\$2,000.00	\$204,000.00
24	Storm Maintenance Holes/MHCBs	ea.	26	\$4,700.00	\$122,200.00
	SWM Pond	LS	1	\$100,000.00	\$100,000.00
36	Minor Roadworks & Drainage Items			15.0%	\$709,500.00
<b>Subtotal Roadworks &amp; Drainage</b>					<b>\$5,539,400.00</b>
<b>B STRUCTURES</b>					
44A	Retaining Walls (RSS)	m <sup>2</sup>	780	\$700.00	\$546,000.00
<b>Subtotal Structures</b>					<b>\$546,000.00</b>
<b>C LANDSCAPING/MITIGATION</b>					
45	Landscaping Component	LS	1	\$1,045,850.00	\$1,045,900.00
46	Mitigation and Compensation for ESA Vegetation Removal	m2	7800	\$15.00	\$117,000.00
<b>Subtotal Landscaping/Mitigation</b>					<b>\$1,162,900.00</b>
<b>D ELECTRICAL</b>					
47	Traffic Signalization (per intersection)	ea.	1	\$200,000.00	\$200,000.00
48	Modifications to Ex. Traffic Signalization (per intersection)	ea.	0	\$120,000.00	\$0.00
49	Street Lighting (per pole)	ea.	98.4	\$5,000.00	\$492,000.00
<b>Subtotal Electrical</b>					<b>\$692,000.00</b>
<b>E PROPERTY</b>					
50	Existing Residential Lands	acre	2.14	\$750,000.00	\$1,605,000.00
51	Vacant	acre	0.00	\$600,000.00	\$0.00
52	Flood Plain	acre	0.00	\$10,000.00	\$0.00
53	Agriculture	acre	0.00	\$125,000.00	\$0.00
54	2 Total Acquisitions	acre	1.10	\$750,000.00	\$825,000.00
55	Eagle Heights Development Lands	acre	1.00	\$650,000.00	\$650,000.00
56	2000 Waterdown Road Access Arrangement	LS	1.00	\$300,000.00	\$300,000.00
<b>Subtotal Property</b>					<b>\$3,380,000.00</b>
<b>F PATHWAY/SIDEWALK</b>					
56	Asphalt Path	m <sup>2</sup>	8812	\$53.00	\$467,100.00
57	Concrete Sidewalk	m <sup>2</sup>	876	\$60.00	\$52,600.00
<b>Subtotal Miscellaneous/Special Requirements</b>					<b>\$519,700.00</b>
<b>G UTILITIES &amp; SERVICES</b>					
1	Bell	L.S.	1	N/A	N/A
2	Hydro	L.S.	1	N/A	N/A
3	Gas	L.S.	1	N/A	N/A
4	Cable	L.S.	1	N/A	N/A
5	Oil Pipelines	L.S.	1	N/A	N/A
6	Hydro One	L.S.	1	N/A	N/A
57	Utility Pole (minor)	ea.	0	\$60.00	\$0.00
58	Utility Pole (major)	ea.	0	N/A	N/A
<b>Subtotal Utilities (allowance)</b>					<b>\$423,000.00</b>
<b>H CONTINGENCY</b>					
Subtotal All Items (excluding Property)					\$8,883,000.00
<b>Contingency 10%</b>					<b>\$888,300.00</b>
<b>I ENGINEERING</b>					
Subtotal All Items (excluding Property)					\$8,883,000.00
<b>Engineering 10%</b>					<b>\$888,300.00</b>
<b>J TOTAL ESTIMATED COST (excluding GST)</b>					<b>\$14,039,600.00</b>



<b>ROAD NAME:</b>	Mountain Brow Road	<b>Imp. Type:</b>	4U-NC & 4U-RC
<b>From:</b>	East of Waterdown Road	<b>To:</b>	East of Midblock
Road Length (m):	747.62	ROW Width (m):	30
Number of Lanes:	4	Lane Width (m):	3.3
Flush Median Width (m):	0	Raised Median Width (m):	0

**ASSUMED FULL DEPTH RECONSTRUCTION OF MOUNTAIN BROW RD SINCE GEOTECH INVESTIGATION NOT COMPLETE AT THIS TIME**

<b>CROSS-SECTION FOR LEFT SIDE:</b>		<b>CROSS-SECTION FOR RIGHT SIDE:</b>	
Cross-Section (Rural/Urban):	URBAN	Cross-Section (Rural/Urban):	URBAN
Paved Road Width (m):	6.6	Paved Road Width (m):	6.6
Paved Shoulder Width (m):	0	Paved Shoulder Width (m):	0
Granular Shoulder Width (m):	0	Granular Shoulder Width (m):	0
Sidewalk Width (m):	0	Sidewalk Width (m):	0
Bike Path Width (m):	0	Bike Path Width (m):	0
Street Lighting (Y/N):	Y	Street Lighting (Y/N):	Y

No.	Item	Unit	Estimated Quantity	Unit Price	Total
<b>A</b>	<b>ROADWORKS &amp; DRAINAGE</b>				
2	Remove Ex. Asphalt (Full Depth)	m <sup>2</sup>	7800	\$6.50	\$50,700.00
11	Concrete Splash Pad (0.3 m width, 150 mm depth)	m <sup>2</sup>		\$50.00	\$0.00
21	150 mm Subdrain	m	1495	\$26.00	\$38,900.00
35	Entrance Modifications/Regrading	L.S.	11	\$15,000.00	\$165,000.00
4	Earth Excavation	m <sup>3</sup>	9408	\$15.00	\$141,200.00
6	Granular A (150 mm depth)	tonnes	3821	\$22.00	\$84,100.00
7	Granular B (450 mm depth)	tonnes	9569	\$19.00	\$181,900.00
9	Surface Course Asphalt (150 mm depth)	tonnes	3830.16	\$90.00	\$344,800.00
10				\$81.00	\$0.00
12	Concrete Curb and Gutter (All types)	m	1495	\$55.00	\$82,300.00
13	Sod c/w 100 mm Topsoil	m <sup>2</sup>	5382.58	\$6.50	\$35,000.00
14	Seeding c/w 100 mm Topsoil	m <sup>2</sup>	0	\$5.00	\$0.00
17	300 mm Storm Sewer Laterals	m	198	\$250.00	\$49,500.00
18	375 - 600 mm Storm Sewer	m	748	\$375.00	\$280,400.00
22	Single Catchbasins	ea.	30	\$2,000.00	\$60,000.00
24	Storm Maintenance Holes/MHCBs	ea.	8	\$4,700.00	\$37,600.00
36	Minor Roadworks & Drainage Items			15.0%	\$232,800.00
	<b>Subtotal Roadworks &amp; Drainage</b>				<b>\$1,784,200.00</b>
<b>B</b>	<b>STRUCTURES</b>				
44A	Retaining Walls (RSS)	m <sup>2</sup>	0	\$700.00	\$0.00
	<b>Subtotal Structures</b>				<b>\$0.00</b>
<b>C</b>	<b>LANDSCAPING/MITIGATION</b>				
45	Landscaping Component	LS	1	\$273,250.00	\$273,300.00
46	Mitigation and Compensation for ESA Vegetation Removal	m2	600	\$15.00	\$9,000.00
	<b>Subtotal Landscaping/Mitigation</b>				<b>\$282,300.00</b>
<b>D</b>	<b>ELECTRICAL</b>				
47	Traffic Signalization (per intersection)	ea.	0	\$200,000.00	\$0.00
48	Modifications to Ex. Traffic Signalization (per intersection)	ea.	0	\$120,000.00	\$0.00
49	Street Lighting (per pole)	ea.	30	\$5,000.00	\$149,600.00
	<b>Subtotal Electrical</b>				<b>\$149,600.00</b>
<b>E</b>	<b>PROPERTY</b>				
50	Existing Residential Lands	acre	0.90	\$750,000.00	\$676,500.00
51	Vacant Lands	acre	0.00	\$600,000.00	\$0.00
52	Flood Plain Lands	acre	0.00	\$10,000.00	\$0.00
53	Agricultural Lands	acre	0.00	\$125,000.00	\$0.00
	<b>Subtotal Property</b>				<b>\$676,500.00</b>
<b>F</b>	<b>MISCELLANEOUS/SPECIAL REQUIREMENTS</b>				
56	Asphalt Path	m <sup>2</sup>	2660	\$53.00	\$141,000.00
57	Concrete Sidewalk	m <sup>2</sup>	0	\$60.00	\$0.00
	<b>Subtotal Miscellaneous/Special Requirements</b>				<b>\$141,000.00</b>
<b>G</b>	<b>UTILITIES &amp; SERVICES</b>				
1	Bell	L.S.	1	N/A	N/A
2	Hydro	L.S.	1	N/A	N/A
3	Gas	L.S.	1	N/A	N/A
4	Cable	L.S.	1	N/A	N/A
5	Oil Pipelines	L.S.	1	N/A	N/A
6	Hydro One	L.S.	1	N/A	N/A
54	Utility Pole (minor)	ea.	0	\$2,000.00	\$0.00
55	Utility Pole (major)	ea.	0	\$5,000.00	\$0.00
	<b>Subtotal Utilities (allowance)</b>				<b>\$117,900.00</b>
<b>H</b>	<b>CONTINGENCY</b>				
	Subtotal All Items (excluding Property)				\$2,475,000.00
	<b>Contingency 10%</b>				<b>\$247,500.00</b>
<b>I</b>	<b>ENGINEERING</b>				
	Subtotal All Items (excluding Property)				\$2,475,000.00
	<b>Engineering 10%</b>				<b>\$247,500.00</b>
<b>J</b>	<b>TOTAL ESTIMATED COST (excluding GST)</b>				
					<b>\$3,646,500.00</b>

ROAD NAME:		The Midblock		Imp. Type: 4U-NC & 4U-RC	
From:		Mountain Brow Road		To: Dundas Street	
Road Length (m):		942	ROW Width (m):		36
Number of Lanes:		4	Lane Width (m):		3.9
Flush Median Width (m):		0	Raised Median Width (m):		2
<b>ASSUMED FULL DEPTH RECONSTRUCTION OF WATERDOWN ROAD SINCE GEOTECH INVESTIGATION NOT COMPLETE AT THIS TIME</b>					
<b>CROSS-SECTION FOR LEFT SIDE:</b>			<b>CROSS-SECTION FOR RIGHT SIDE:</b>		
Cross-Section (Rural/Urban):		URBAN		Cross-Section (Rural/Urban): URBAN	
Paved Road Width (m):		7.85		Paved Road Width (m): 7.85	
Paved Shoulder Width (m):		0		Paved Shoulder Width (m): 0	
Granular Shoulder Width (m):		0		Granular Shoulder Width (m): 0	
Sidewalk Width (m):		2		Sidewalk Width (m): 2	
Bike Path Width (m):		0		Bike Path Width (m): 0	
Street Lighting (Y/N):		Y		Street Lighting (Y/N): Y	
No.	Item	Unit	Estimated Quantity	Unit Price	Total
<b>A ROADWORKS &amp; DRAINAGE</b>					
1	Remove Ex. Asphalt (Full Depth)	m <sup>2</sup>	0	\$10,000.00	\$0.00
11	Concrete Splash Pad (0.3 m width, 150 mm depth)	m <sup>2</sup>		\$50.00	\$0.00
21	150 mm Subdrain	m	1884	\$26.00	\$49,000.00
35	Entrance Modifications/Regrading	L.S.	0	\$15,000.00	\$0.00
4	Earth Excavation	m <sup>3</sup>	27144	\$15.00	\$407,200.00
6	Granular A (150 mm depth)	tonnes	5852	\$22.00	\$128,800.00
7	Granular B (450 mm depth)	tonnes	15251	\$19.00	\$289,800.00
9	Surface Course Asphalt (150 mm depth)	tonnes	3501	\$90.00	\$315,200.00
10				\$81.00	\$0.00
12	Concrete Curb and Gutter (All types)	m	1884	\$55.00	\$103,700.00
13	Sod c/w 100 mm Topsoil	m <sup>2</sup>	12821.19	\$6.50	\$83,400.00
14	Seeding c/w 100 mm Topsoil	m <sup>2</sup>	0	\$5.00	\$0.00
17	300 mm Storm Sewer Laterals	m	338	\$250.00	\$84,500.00
18	375 - 600 mm Storm Sewer	m	942	\$375.00	\$353,300.00
22	Single Catchbasins	ea.	38	\$2,000.00	\$76,000.00
24	Storm Maintenance Holes/MHCBs	ea.	10	\$4,700.00	\$47,000.00
36	Minor Roadworks & Drainage Items			15.0%	\$290,700.00
<b>Subtotal Roadworks &amp; Drainage</b>					<b>\$2,228,600.00</b>
<b>B STRUCTURES</b>					
42A	Structural Culvert (Over 3 metres in width)	m <sup>2</sup>	450	\$3,200.00	\$1,440,000.00
<b>Subtotal Structures</b>					<b>\$1,440,000.00</b>
<b>C LANDSCAPING/MITIGATION</b>					
45	Landscaping Component	LS	1	\$480,400.00	\$480,400.00
46	Mitigation and Compensation for Watercourse Crossings	m	0	\$1,000.00	\$0.00
<b>Subtotal Landscaping/Mitigation</b>					<b>\$480,400.00</b>
<b>D ELECTRICAL</b>					
47	Traffic Signalization (per intersection)	ea.	0	\$200,000.00	\$0.00
48	Modifications to Ex. Traffic Signalization (per intersection)	ea.	0	\$120,000.00	\$0.00
49	Street Lighting (per pole)	ea.	38	\$5,000.00	\$188,400.00
<b>Subtotal Electrical</b>					<b>\$188,400.00</b>
<b>E PROPERTY</b>					
50	Existing Residential Lands	acre	0.00	\$750,000.00	\$0.00
51	Vacant Lands	acre	0.00	\$600,000.00	\$0.00
52	Flood Plain Lands	acre	0.00	\$10,000.00	\$0.00
53	Agricultural Lands	acre	0.00	\$125,000.00	\$0.00
<b>Subtotal Property</b>					<b>\$0.00</b>
<b>F MISCELLANEOUS/SPECIAL REQUIREMENTS</b>					
56	Asphalt Path	m <sup>2</sup>	0	\$53.00	\$0.00
57	Concrete Sidewalk	m <sup>2</sup>	3936	\$60.00	\$236,200.00
<b>Subtotal Miscellaneous/Special Requirements</b>					<b>\$236,200.00</b>
<b>G UTILITIES &amp; SERVICES</b>					
1	Bell	L.S.	1	N/A	N/A
2	Hydro	L.S.	1	N/A	N/A
3	Gas	L.S.	1	N/A	N/A
4	Cable	L.S.	1	N/A	N/A
5	Oil Pipelines	L.S.	1	N/A	N/A
6	Hydro One	L.S.	1	N/A	N/A
54	Utility Pole (minor)	ea.	0	\$2,000.00	\$0.00
55	Utility Pole (major)	ea.	0	\$5,000.00	\$0.00
<b>Subtotal Utilities (allowance)</b>					<b>\$228,700.00</b>
<b>H CONTINGENCY</b>					
Subtotal All Items (excluding Property)					\$4,802,300.00
<b>Contingency 10%</b>					<b>\$480,300.00</b>
<b>I ENGINEERING</b>					
Subtotal All Items (excluding Property)					\$4,802,300.00
<b>Engineering 10%</b>					<b>\$480,300.00</b>
<b>J TOTAL ESTIMATED COST (excluding GST)</b>					<b>\$5,762,900.00</b>