

**Appendix J:
Construction Costs**

Construction Costs

Design Alternative 1
Road Section: Bayview Drive (Little Avenue to Big Bay Point Road)

ROW	26.3 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.5
Proposed Asphalt Width	14.2 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	11.2 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$284.94	(E7+2)*((M6+M7)/1000)*1*E14

Average Cost of Removals \$284.94

REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$72.06	E8*1*E19
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	1*2*E20
Remove Ex Storm MH	each	\$0.00	\$0.00	1/100*E21
Remove Ex Catch basin	each	\$0.00	\$0.00	2/60*E22
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	1*E23*85%
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	1.5*1*2*E24
Tree Removal	each	\$394.79	\$52.64	2*E2515
Stripping of Topsoil	sq. m.	\$3.72	\$41.27	(E6-E8-1-3)*1*E26

Average Cost of Removals \$165.97

CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$141.57	(E7+1*2)*E31
Granular B - 600 mm	sq. m.	\$26.82	\$434.55	(E7+1*2)*E32
Concrete Curb and Gutter	m.	\$49.24	\$98.48	1*2*E33
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	1*2*E34
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$127.41	E7*1*E35
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$257.61	E7*1*E36
Tack Coat	sq. m.	\$0.31	\$4.42	E7*1*E37
Concrete Sidewalk	sq. m.	\$53.70	\$107.40	1.8*1*1*E38
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$84.10	(E6-E7-1-1.8)*1*E39
Mechanical Water Quality Device	each	\$148,650.00	\$107.31	E40/46500*E7
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	1*E41
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	1/100*E42
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	2/60*E43
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$86.22	2/60*E44*E7/2
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	3/73.333*E45
Trees	each	\$516.03	\$68.80	2*E46/15
Culvert Replacement		\$1,000,000.00	\$714.29	E47/G75
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	1*E48

Average Cost of Construction \$3,674.64
Utility Relocation (15% of Construction) \$551.20

MISCELLANEOUS			Reconstruction
Bonds	L. S.		
Bonds as a percentage of net tender amount		1.80%	\$84.18
Insurance	L. S.		
Insurance as a percentage of net tender amount		1.00%	\$46.77
Garbage and Recyclable Collection	L. S.		
Garbage and Recyclable Collection as a % of net		0.10%	\$4.68
Traffic Control and Signing	L. S.		
Traffic Control and Signing as a % of net		1.24%	\$57.99
Field Office	L. S.		
Field Office as a percentage of net tender amount		0.12%	\$5.61
Schedule of Work	L. S.		
Schedule of Work		0.10%	\$4.68
Street Lights	each	\$1,662.38	\$59.37
Traffic Signals		\$250,000.00	\$267.86
Street Light Duct Work	m.	\$33.50	\$33.50
Asphalt Driveway Removal and Restoration	sq. m.	\$25.94	\$68.48

Average Cost of Miscellaneous Items \$633.12

\$5,309.86 Reconstruction per metre

1400	m	Length
\$7,433,797.26		
\$1,486,759.45	20%	Design
\$1,858,449.32	25%	Contingency
\$10,779,006.03	Sub-Total	
\$189,710.51	1.76%	Non-Recoverable HST
\$10,968,716.54	Total	

\$7,834.80 Total reconstruction costs per metre - including design and contingency cost:

Construction Costs

**Design Alternative 2
Road Section: Bayview Drive (Little Avenue to Big Bay Point Road)**

ROW	26.3 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.2
Proposed Asphalt Width	13.2 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	11.2 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$267.35	(E7+2)*((M6+M7)/1000)*1*E14
Average Cost of Removals			\$267.35	

REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$72.06	E8*1*E19
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	1*2*E20
Remove Ex Storm MH	each	\$0.00	\$0.00	1/100*E21
Remove Ex Catch basin	each	\$0.00	\$0.00	2/60*E22
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	1*E23*85%
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	1.5*1*2*E24
Tree Removal	each	\$394.79	\$52.64	2*E2515
Stripping of Topsoil	sq. m.	\$3.72	\$41.27	(E6-E8-1-3)*1*E26
Average Cost of Removals			\$165.97	

CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$132.83	(E7+1*2)*E31
Granular B - 600 mm	sq. m.	\$26.82	\$407.73	(E7+1*2)*E32
Concrete Curb and Gutter	m.	\$49.24	\$98.48	1*2*E33
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	1*2*E34
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$118.43	E7*1*E35
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$239.47	E7*1*E36
Tack Coat	sq. m.	\$0.31	\$4.11	E7*1*E37
Concrete Sidewalk	sq. m.	\$53.70	\$214.81	1.8*1*1*E38
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$74.85	(E6-E7-1-1.8)*1*E39
Mechanical Water Quality Device	each	\$148,650.00	\$107.34	E40/46500*E7
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	1*E41
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	1/100*E42
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	2/60*E43
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$80.15	2/60*E44*E7/2
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	3/73.333*E45
Trees	each	\$516.03	\$68.80	2*E46/15
Culvert Replacement		\$1,000,000.00	\$714.29	E47/G75
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	1*E48
Average Cost of Construction			\$3,703.77	
Utility Relocation (15% of Construction)			\$555.57	

MISCELLANEOUS		Reconstruction		
Bonds	L. S.			
Bonds as a percentage of net tender amount		1.80%	\$84.47	
Insurance	L. S.			
Insurance as a percentage of net tender amount		1.00%	\$46.93	
Garbage and Recyclable Collection	L. S.			
Garbage and Recyclable Collection as a % of net		0.10%	\$4.69	
Traffic Control and Signing	L. S.			
Traffic Control and Signing as a % of net		1.24%	\$58.19	
Field Office	L. S.			
Field Office as a percentage of net tender amount		0.12%	\$5.63	
Schedule of Work	L. S.			
Schedule of Work as a percentage of net tender amount		0.10%	\$4.69	
Street Lights	each	\$1,662.38	\$59.37	
Traffic Signals		\$250,000.00	\$267.86	(2.5*E65)/G75)
Street Light Duct Work	m.	\$33.50	\$33.50	
Asphalt Driveway Removal and Restoration	sq. m.	\$25.94	\$68.48	
Average Cost of Miscellaneous Items			\$633.81	

\$5,326.46 Reconstruction per metre

1400	m	Length
\$7,457,044.85		
\$1,491,408.97	20%	Design
\$1,864,261.21	25%	Contingency
\$10,812,715.04		Sub-Total
\$190,303.78	1.76%	Non-Recoverable HST
\$11,003,018.82		Total

\$7,859.30 Total reconstruction costs per metre - including design and contingency cost:

Construction Costs

**Design Alternative A
Road Section: Big Bay Point Road (Bayview Drive to Huronia Road)**

ROW	41 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.5
Proposed Asphalt Width	29.2 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	9.5 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$548.77	$(E7+2)*((M6+M7)/1000)*1*E14$

Average Cost of Removals \$548.77

REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$61.12	$E8*1*E19$
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	$1*2*E20$
Remove Ex Storm MH	each	\$0.00	\$0.00	$1/100*E21$
Remove Ex Catch basin	each	\$0.00	\$0.00	$2/60*E22$
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	$1*E23*85\%$
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	$1.5*1*2*E24$
Tree Removal	each	\$394.79	\$52.64	$2*E2515$
Stripping of Topsoil	sq. m.	\$3.72	\$102.24	$(E6-E8-1-3)*1*E26$

Average Cost of Removals \$216.01

CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$272.65	$(E7+1*2)*E31$
Granular B - 600 mm	sq. m.	\$26.82	\$836.92	$(E7+1*2)*E32$
Concrete Curb and Gutter	m.	\$49.24	\$98.48	$1*2*E33$
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	$1*2*E34$
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$261.99	$E7*1*E35$
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$529.73	$E7*1*E36$
Tack Coat	sq. m.	\$0.31	\$9.10	$E7*1*E37$
Concrete Sidewalk	sq. m.	\$53.70	\$214.81	$1.8*1*1*E38$
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$62.84	$(E6-E7-1-1.8)*1*E39$
Mechanical Water Quality Device	each	\$150,000.00	\$85.46	$E40/46500*E7$
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	$1*E41$
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	$1/100*E42$
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	$2/60*E43$
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$177.30	$2/60*E44*E7/2$
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	$3/73.333*E45$
Trees	each	\$516.03	\$68.80	$2*E46/15$
Culvert Replacement		\$300,000.00	\$241.94	$E47/G75$
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	$1*E48$

Average Cost of Construction \$4,302.49
Utility Relocation (15% of Construction) \$645.37

MISCELLANEOUS		Reconstruction	
Bonds	L. S.		
Bonds as a percentage of net tender amount		1.80%	\$102.83
Insurance	L. S.		
Insurance as a percentage of net tender amount		1.00%	\$57.13
Garbage and Recyclable Collection	L. S.		
Garbage and Recyclable Collection as a % of net		0.10%	\$5.71
Traffic Control and Signing	L. S.		
Traffic Control and Signing as a % of net		1.24%	\$70.84
Field Office	L. S.		
Field Office as a percentage of net tender amount		0.12%	\$6.86
Schedule of Work	L. S.		
Schedule of Work		0.10%	\$5.71
Street Lights	each	\$1,662.38	\$59.37
Traffic Signals		\$750,000.00	\$1,512.10
Street Light Duct Work	m.	\$33.50	\$33.50
Asphalt Driveway Removal and Restoration	sq. m.	\$25.94	\$68.48

Average Cost of Miscellaneous Items \$1,922.52

\$7,635.16 Reconstruction per metre

1240	m	Length
\$9,467,598.51		
\$1,893,519.70	20%	Design
\$2,366,899.63	25%	Contingency
\$13,728,017.84	Sub-Total	
\$241,613.11	1.76%	Non-Recoverable HST
\$13,969,630.96	Total	

\$11,265.83 Total reconstruction costs per metre - including design and contingency cost:

Construction Costs

**Design Alternative B
Road Section: Big Bay Point Road (Bayview Drive to Huronia Road)**

ROW	37.2 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.2
Proposed Asphalt Width	28.6 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	9.5 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$538.21	$(E7+2)*((M6+M7)/1000)*1*E14$

Average Cost of Removals \$538.21

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$61.12	$E8*1*E19$
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	$1*2*E20$
Remove Ex Storm MH	each	\$0.00	\$0.00	$1/100*E21$
Remove Ex Catch basin	each	\$0.00	\$0.00	$2/60*E22$
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	$1*E23*85\%$
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	$1.5*1*2*E24$
Tree Removal	each	\$394.79	\$52.64	$2*E2515$
Stripping of Topsoil	sq. m.	\$3.72	\$88.12	$(E6-E8-1-3)*1*E26$

Average Cost of Removals \$201.88

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$267.41	$(E7+1*2)*E31$
Granular B - 600 mm	sq. m.	\$26.82	\$820.83	$(E7+1*2)*E32$
Concrete Curb and Gutter	m.	\$49.24	\$98.48	$1*2*E33$
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	$1*2*E34$
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$256.61	$E7*1*E35$
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$518.84	$E7*1*E36$
Tack Coat	sq. m.	\$0.31	\$8.91	$E7*1*E37$
Concrete Sidewalk	sq. m.	\$53.70	\$107.40	$1.8*1*1*E38$
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$51.75	$(E6-E7-1-1.8)*1*E39$
Mechanical Water Quality Device	each	\$150,000.00	\$92.26	$E40/46500*E7$
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	$1*E41$
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	$1/100*E42$
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	$2/60*E43$
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$173.66	$2/60*E44*E7/2$
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	$3/73.333*E45$
Trees	each	\$516.03	\$68.80	$2*E46/15$
Culvert Replacement		\$300,000.00	\$241.94	$E47/G75$
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	$1*E48$

Average Cost of Construction \$4,149.36
Utility Relocation (15% of Construction) \$622.40

	Unit	Average Unit Price	Price per metre Reconstruction
MISCELLANEOUS			
Bonds	L. S.		
Bonds as a percentage of net tender amount		1.80%	\$99.21
Insurance	L. S.		
Insurance as a percentage of net tender amount		1.00%	\$55.12
Garbage and Recyclable Collection	L. S.		
Garbage and Recyclable Collection as a % of net		0.10%	\$5.51
Traffic Control and Signing	L. S.		
Traffic Control and Signing as a % of net		1.24%	\$68.35
Field Office	L. S.		
Field Office as a percentage of net tender amount		0.12%	\$6.61
Schedule of Work	L. S.		
Schedule of Work as a percentage of net tender amount		0.10%	\$5.51
Street Lights	each	\$1,662.38	\$59.37
Traffic Signals		\$750,000.00	\$1,512.10
Street Light Duct Work	m.	\$33.50	\$33.50
Asphalt Driveway Removal and Restoration	sq. m.	\$25.94	\$68.48

Average Cost of Miscellaneous Items \$1,913.77

\$7,425.62 Reconstruction per metre

1240	m	Length
\$9,207,767.22		
\$1,841,553.44	20%	Design
\$2,301,941.80	25%	Contingency
\$13,351,262.46	Sub-Total	
\$234,982.22	1.76%	Non-Recoverable HST
\$13,586,244.68	Total	

\$10,956.65 Total reconstruction costs per metre - including design and contingency cost:

Construction Costs

**Design Alternative C
Road Section: Big Bay Point Road (Bayview Drive to Huronia Road)**

ROW	34 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.5
Proposed Asphalt Width	22.2 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	9.5 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$425.65	(E7+2)*((M6+M7)/1000)*1*E14

Average Cost of Removals \$425.65

REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$61.12	E8*1*E19
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	1*2*E20
Remove Ex Storm MH	each	\$0.00	\$0.00	1/100*E21
Remove Ex Catch basin	each	\$0.00	\$0.00	2/60*E22
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	1*E23*85%
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	1.5*1*2*E24
Tree Removal	each	\$394.79	\$52.64	2*E2515
Stripping of Topsoil	sq. m.	\$3.72	\$76.22	(E6-E8-1-3)*1*E26

Average Cost of Removals \$189.98

CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$211.48	(E7+1*2)*E31
Granular B - 600 mm	sq. m.	\$26.82	\$649.15	(E7+1*2)*E32
Concrete Curb and Gutter	m.	\$49.24	\$98.48	1*2*E33
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	1*2*E34
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$199.18	E7*1*E35
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$402.74	E7*1*E36
Tack Coat	sq. m.	\$0.31	\$6.92	E7*1*E37
Concrete Sidewalk	sq. m.	\$53.70	\$214.81	1.8*1*1*E38
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$62.84	(E6-E7-1-1.8)*1*E39
Mechanical Water Quality Device	each	\$125,950.00	\$65.79	E40/46500*E7
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	1*E41
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	1/100*E42
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	2/60*E43
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$134.80	2/60*E44*E7/2
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	3/73.333*E45
Trees	each	\$516.03	\$68.80	2*E46/15
Culvert Replacement		\$300,000.00	\$241.94	E47/G75
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	1*E48

Average Cost of Construction \$3,799.40
Utility Relocation (15% of Construction) \$569.91

MISCELLANEOUS			Reconstruction
Bonds	L. S.		
Bonds as a percentage of net tender amount		1.80%	\$89.73
Insurance	L. S.		
Insurance as a percentage of net tender amount		1.00%	\$49.85
Garbage and Recyclable Collection	L. S.		
Garbage and Recyclable Collection as a % of net		0.10%	\$4.98
Traffic Control and Signing	L. S.		
Traffic Control and Signing as a % of net		1.24%	\$61.81
Field Office	L. S.		
Field Office as a percentage of net tender amount		0.12%	\$5.98
Schedule of Work	L. S.		
Schedule of Work as a percentage of net tender amount		0.10%	\$4.98
Street Lights	each	\$1,662.38	\$59.37
Traffic Signals		\$750,000.00	\$1,512.10 (2.5*E65)/G75)
Street Light Duct Work	m.	\$33.50	\$33.50
Asphalt Driveway Removal and Restoration	sq. m.	\$25.94	\$68.48

Average Cost of Miscellaneous Items \$1,890.79

\$6,875.73 Reconstruction per metre

1240	m	Length
\$8,525,900.43		
\$1,705,180.09	20%	Design
\$2,131,475.11	25%	Contingency
\$12,362,555.62		Sub-Total
\$217,580.98	1.76%	Non-Recoverable HST
\$12,580,136.60		Total

\$10,145.27 Total reconstruction costs per metre - including design and contingency cost:

Construction Costs

**Design Alternative D
Road Section: Big Bay Point Road (Bayview Drive to Huronia Road)**

ROW	37.2 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.5
Proposed Asphalt Width	22.2 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	9.5 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$425.65	$(E7+2)*((M6+M7)/1000)*1*E14$

Average Cost of Removals \$425.65

REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$61.12	$E8*1*E19$
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	$1*2*E20$
Remove Ex Storm MH	each	\$0.00	\$0.00	$1/100*E21$
Remove Ex Catch basin	each	\$0.00	\$0.00	$2/60*E22$
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	$1*E23*85\%$
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	$1.5*1*2*E24$
Tree Removal	each	\$394.79	\$52.64	$2*E2515$
Stripping of Topsoil	sq. m.	\$3.72	\$88.12	$(E6-E8-1-3)*1*E26$

Average Cost of Removals \$201.88

CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$211.48	$(E7+1*2)*E31$
Granular B - 600 mm	sq. m.	\$26.82	\$649.15	$(E7+1*2)*E32$
Concrete Curb and Gutter	m.	\$49.24	\$98.48	$1*2*E33$
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	$1*2*E34$
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$199.18	$E7*1*E35$
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$402.74	$E7*1*E36$
Tack Coat	sq. m.	\$0.31	\$6.92	$E7*1*E37$
Concrete Sidewalk	sq. m.	\$53.70	\$107.40	$1.8*1*1*E38$
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$110.90	$(E6-E7-1-1.8)*1*E39$
Mechanical Water Quality Device	each	\$82,000.00	\$39.15	$E40/46500*E7$
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	$1*E41$
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	$1/100*E42$
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	$2/60*E43$
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$134.80	$2/60*E44*E7/2$
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	$3/73.333*E45$
Trees	each	\$516.03	\$68.80	$2*E46/15$
Culvert Replacement		\$300,000.00	\$241.94	$E47/G75$
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	$1*E48$

Average Cost of Construction \$3,713.41
Utility Relocation (15% of Construction) \$557.01

MISCELLANEOUS	Reconstruction		
Bonds	L. S.		
Bonds as a percentage of net tender amount		1.80%	\$88.16
Insurance	L. S.		
Insurance as a percentage of net tender amount		1.00%	\$48.98
Garbage and Recyclable Collection	L. S.		
Garbage and Recyclable Collection as a % of net		0.10%	\$4.90
Traffic Control and Signing	L. S.		
Traffic Control and Signing as a % of net		1.24%	\$60.73
Field Office	L. S.		
Field Office as a percentage of net tender amount		0.12%	\$5.88
Schedule of Work	L. S.		
Schedule of Work		0.10%	\$4.90
Street Lights	each	\$1,662.38	\$59.37
Traffic Signals		\$750,000.00	\$1,512.10
Street Light Duct Work	m.	\$33.50	\$33.50
Asphalt Driveway Removal and Restoration	sq. m.	\$25.94	\$68.48

Average Cost of Construction \$1,887.00

\$6,784.94 Reconstruction per metre

1240	m	Length
\$8,413,326.26		
\$1,682,665.25	20%	Design
\$2,103,331.56	25%	Contingency
\$12,199,323.07		Sub-Total
\$214,708.09	1.76%	Non-Recoverable HST
\$12,414,031.16		Total

\$10,011.32 Total reconstruction costs per metre - including design and contingency cost:

Construction Costs - Preferred Alternative

Road Section: Bayview Drive (Little Avenue to Big Bay Point Road)

ROW	26.3 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.5
Proposed Asphalt Width	14.2 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	11.2 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$284.94	$(E7+2)*((M6+M7)/1000)*1*E14$
Average Cost of Removals			\$284.94	

REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$72.06	$E8*1*E19$
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	$1*2*E20$
Remove Ex Storm MH	each	\$0.00	\$0.00	$1/100*E21$
Remove Ex Catch basin	each	\$0.00	\$0.00	$2/60*E22$
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	$1*E23*85\%$
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	$1.5*1*2*E24$
Tree Removal	each	\$394.79	\$52.64	$2*E2515$
Stripping of Topsoil	sq. m.	\$3.72	\$41.27	$(E6-E8-1-3)*1*E26$
Average Cost of Removals			\$165.97	

CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$141.57	$(E7+1*2)*E31$
Granular B - 600 mm	sq. m.	\$26.82	\$434.55	$(E7+1*2)*E32$
Concrete Curb and Gutter	m.	\$49.24	\$98.48	$1*2*E33$
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	$1*2*E34$
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$127.41	$E7*1*E35$
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$257.61	$E7*1*E36$
Tack Coat	sq. m.	\$0.31	\$4.42	$E7*1*E37$
Concrete Sidewalk	sq. m.	\$53.70	\$96.66	$1.8*1*1*E38$
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$85.94	$(E6-E7-1-1.8)*1*E39$
Mechanical Water Quality Device	each	\$148,650.00	\$107.31	$E40/46500*E7$
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	$1*E41$
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	$1/100*E42$
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	$2/60*E43$
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$86.22	$2/60*E44*E7/2$
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	$3/73.333*E45$
Trees	each	\$516.03	\$68.80	$2*E46/15$
Culvert Replacement (estimate for all crossings)		\$1,000,000.00	\$714.29	$E47/G75$
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	$1*E48$
Average Cost of Construction			\$3,665.75	
Utility Relocation (15% of construction)			\$549.86	

MISCELLANEOUS		Reconstruction		
Bonds	L. S.			
Bonds as a percentage of net tender amount		1.80%	\$84.00	
Insurance	L. S.			
Insurance as a percentage of net tender amount		1.00%	\$46.67	
Garbage and Recyclable Collection	L. S.			
Garbage and Recyclable Collection as a % of net		0.10%	\$4.67	
Traffic Control and Signing	L. S.			
Traffic Control and Signing as a % of net		1.24%	\$57.86	
Field Office	L. S.			
Field Office as a percentage of net tender amount		0.12%	\$5.60	
Schedule of Work	L. S.			
Schedule of Work		0.10%	\$4.67	
Street Lights	each	\$1,773.76	\$63.35	
Traffic Signals		\$250,000.00	\$267.86	$(1.5*E65)/G75$
Street Light Duct Work	m.	\$35.74	\$35.74	
Asphalt Driveway Removal and Restoration	sq. m.	\$27.68	\$73.07	
Average Cost of Miscellaneous Items			\$643.48	

\$5,309.99 Reconstruction per metre

1400	m	Length
\$7,433,991.53		
\$1,486,798.31	20%	Design
\$1,858,497.88	25%	Contingency
\$10,779,287.72		Sub-Total
\$189,715.46	1.76%	Non-Recoverable HST
\$10,969,003.18		Total

\$7,835.00 Total reconstruction costs per metre - including design and contingency cost:

Construction Costs - Preferred Alternative

Road Section: Big Bay Point Road (Bayview Drive to Huronia Road)

ROW	37.2 m	HL1	40 mm	Gran A	150 mm	Bike Lane width	1.5
Proposed Asphalt Width	22.2 m	HL3	0 mm	Gran B	600 mm	No. of Bike Lane	2
Existing Asphalt Width	9.5 m	HL4/HL8	100 mm				

	Unit	Average Unit Price	Price per metre Reconstruction	Formula
REMOVALS (From Scratch)				
Earth Excavation	cu. m.	\$23.45	\$425.65	(E7+2)*((M6+M7)/1000)*1*E14

Average Cost of Removals \$425.65

REMOVALS (Existing 2-Lane Urban Road)				
Remove Existing Asphalt	sq.m.	\$6.43	\$61.12	E8*1*E19
Remove Concrete Curb and Gutter	m.	\$0.00	\$0.00	1*2*E20
Remove Ex Storm MH	each	\$0.00	\$0.00	1/100*E21
Remove Ex Catch basin	each	\$0.00	\$0.00	2/60*E22
Remove Ex Storm Sewer	m.	\$0.00	\$0.00	1*E23*85%
Remove Existing Concrete Sidewalk	sq. m.	\$0.00	\$0.00	1.5*1*2*E24
Tree Removal	each	\$394.79	\$52.64	2*E2515
Stripping of Topsoil	sq. m.	\$3.72	\$88.12	(E6-E8-1-3)*1*E26

Average Cost of Removals \$201.88

CONSTRUCTION				
Granular A - 150 mm	sq. m.	\$8.74	\$211.48	(E7+1*2)*E31
Granular B - 600 mm	sq. m.	\$26.82	\$649.15	(E7+1*2)*E32
Concrete Curb and Gutter	m.	\$49.24	\$98.48	1*2*E33
100 mm Diameter PE Subdrain	m.	\$26.41	\$52.82	1*2*E34
HL1 Asphalt - 40 mm	sq. m.	\$8.97	\$199.18	E7*1*E35
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$18.14	\$402.74	E7*1*E36
Tack Coat	sq. m.	\$0.31	\$6.92	E7*1*E37
Concrete Sidewalk	sq. m.	\$53.70	\$96.66	1.8*1*1*E38
Fine Grading, Topsoil & Sod	sq. m.	\$9.24	\$112.74	(E6-E7-1-1.8)*1*E39
Mechanical Water Quality Device	each	\$82,000.00	\$39.15	E40/46500*E7
1050mm Diameter Storm Sewer	m.	\$707.53	\$707.53	1*E41
1500mm Diameter Precast Maintenance Hole	each	\$7,844.41	\$78.44	1/100*E42
Precast Catch Basin -Single	each	\$2,628.48	\$87.62	2/60*E43
250mm Diameter Catch Basin Lead, Flexible	m.	\$364.32	\$134.80	2/60*E44*E7/2
Adjust Existing MH and CB to finished grade	each	\$392.72	\$16.07	3/73.333*E45
Trees	each	\$516.03	\$68.80	2*E46/15
Culvert Replacement		\$300,000.00	\$241.94	E47/G75
Bio-swale Low Impact Development Facility	m.	\$500.00	\$500.00	1*E48

Average Cost of Construction \$3,704.51
Utility Relocation (15% of construction) \$555.68

MISCELLANEOUS		Reconstruction		
Bonds	L. S.			
Bonds as a percentage of net tender amount		1.80%	\$87.98	
Insurance	L. S.			
Insurance as a percentage of net tender amount		1.00%	\$48.88	
Garbage and Recyclable Collection	L. S.			
Garbage and Recyclable Collection as a % of net		0.10%	\$4.89	
Traffic Control and Signing	L. S.			
Traffic Control and Signing as a % of net		1.24%	\$60.61	
Field Office	L. S.			
Field Office as a percentage of net tender amount		0.12%	\$5.87	
Schedule of Work	L. S.			
Schedule of Work		0.10%	\$4.89	
Street Lights	each	\$1,773.76	\$63.35	
Traffic Signals		\$750,000.00	\$1,512.10	(2.5*E65)/G75
Street Light Duct Work	m.	\$35.74	\$35.74	
Asphalt Driveway Removal and Restoration	sq. m.	\$27.68	\$73.07	

Average Cost of Miscellaneous Items \$1,897.36

\$6,785.08 Reconstruction per metre

1240	m	Length
\$8,413,498.32		
\$1,682,699.66	20%	Design
\$2,103,374.58	25%	Contingency
\$12,199,572.57		Sub-Total
\$214,712.48	1.76%	Non-Recoverable HST
\$12,414,285.04		Total

\$10,011.52 Total reconstruction costs per metre - including design and contingency costs