

Appendix E

Implementation Details

**ROTHESAY AT PLAN
IMPLEMENTATION PLAN SUMMARY**

TABLE E.1

Type of AT Improvement	0-2 Years		3-5 Years		5-10 years		Total 10 Years	
	Km	Cost	Km	Cost	Km	Cost	Km	Cost
Bike Lanes and Signage (No Widening)	15.1	\$87,630	10.0	\$39,660	0.0	\$0	25.1	\$127,290
Road Widening for Bike Lanes	0.1	\$60,000	1.5	\$737,900	0.2	\$99,100	1.9	\$897,000
Paved Shoulders	1.5	\$132,300	2.9	\$263,300	0.6	\$28,500	4.9	\$424,100
Sidewalks and Crosswalks	1.9	\$271,800	4.1	\$565,100	11.5	\$1,613,300	17.5	\$2,450,200
Trail Development	6.8	\$451,350	7.3	\$1,185,550	5.5	\$1,334,700	19.6	\$2,971,600
Total		\$1,003,080		\$2,791,510		\$3,075,600		\$6,870,190

TABLE E.2

Bike Lanes and Signage		0-2 Years		3-5 Years		5-10 years		Total 10 Years	
Route	Description	Km	Cost	Km	Cost	Km	Cost	Km	Cost
Rothesay Road	Bike Lanes	4.8	\$27,120	0.0	\$0	0.0	\$0	4.8	\$27,120
Gondola Point Road	Bike Lanes	3.6	\$21,480	0.0	\$0	0.0	\$0	3.6	\$21,480
Vincent Road	Shared Lanes	0.3	\$750	0.0	\$0	0.0	\$0	0.3	\$750
Hampton Road	Bike Lanes	1.0	\$6,000	0.0	\$0	0.0	\$0	1.0	\$6,000
Church Avenue	Shared Lanes	0.3	\$1,800	0.0	\$0	0.0	\$0	0.3	\$1,800
Grove Avenue	Bike Lanes	1.5	\$8,400	0.0	\$0	0.0	\$0	1.5	\$8,400
Clark Road	Bike Lanes	0.9	\$5,760	0.0	\$0	0.0	\$0	0.9	\$5,760
Marr Road	Bike Lanes	1.4	\$8,160	0.0	\$0	0.0	\$0	1.4	\$8,160
French Village Road	Bike Lanes & Signed Only Route	1.4	\$8,160	1.1	\$1,800	0.0	\$0	2.5	\$9,960
Fox Farm Road	Bike Lanes	0.0	\$0	0.6	\$12,240	0.0	\$0	0.6	\$12,240
Campbell Drive	Bike Lanes	0.0	\$0	0.3	\$5,820	0.0	\$0	0.3	\$5,820
Highland Avenue	Signed Route Only	0.0	\$0	2.3	\$4,800	0.0	\$0	2.3	\$4,800
Chapel Rd-Holland Dr	Signed Route Only	0.0	\$0	1.0	\$2,400	0.0	\$0	1.0	\$2,400
Donlyn Drive	Signed Route Only	0.0	\$0	0.9	\$2,400	0.0	\$0	0.9	\$2,400
Dobson Ln-Monaco Dr-Oakville Ln	Signed Route Only	0.0	\$0	1.3	\$3,000	0.0	\$0	1.3	\$3,000
Renshaw Road	Signed Route Only	0.0	\$0	1.1	\$1,800	0.0	\$0	1.1	\$1,800
Horton Rd-Dunedin Rd	Signed Route Only	0.0	\$0	0.8	\$3,000	0.0	\$0	0.8	\$3,000
Wiljac St-Neil St-Beauvista St	Signed Route Only	0.0	\$0	0.6	\$1,800	0.0	\$0	0.6	\$1,800
Acadia Avenue	Signed Route Only	0.0	\$0	0.1	\$600	0.0	\$0	0.1	\$600

TABLE E.3

Road Widening for Bike Lanes		0-2 Years		3-5 Years		5-10 years		Total 10 Years	
Route	Description	Km	Cost	Km	Cost	Km	Cost	Km	Cost
Gondola Point Road	Bike Lanes at Rail Overpass	0.1	\$60,000	0.0	\$0	0.0	\$0	0.1	\$60,000
Hampton Road	Bike Lanes, Pedestrian Refuge Islands	0.0	\$0	1.5	\$737,900	0.0	\$0	1.5	\$737,900
Campbell Drive	Widening for Bike Lanes	0.0	\$0	0.0	\$0	0.2	\$99,100	0.2	\$99,100

TABLE E.4

Paved Shoulders		0-2 Years		3-5 Years		5-10 years		Total 10 Years	
Route	Description	Km	Cost	Km	Cost	Km	Cost	Km	Cost
Campbell Drive	Improvements	0.0	\$0	2.9	\$263,300	0.0	\$0	2.9	\$263,300
Millennium Drive	Paved Shoulders	1.5	\$132,300	0.0	\$0	0.0	\$0	1.5	\$132,300
Wiljac St-Neil St-Beauvista St	Paved Shoulder (one side)	0.0	\$0	0.0	\$0	0.6	\$28,500	0.6	\$28,500

TABLE E.5

Sidewalks and Crosswalks		0-2 Years		3-5 Years		5-10 years		Total 10 Years	
Route	Description	Km	Cost	Km	Cost	Km	Cost	Km	Cost
Rothesay Road	Sidewalks either side and Crosswalks	0.58	\$80,600	0.36	\$50,500	3.46	\$484,900	4.4	\$616,000
Gondola Point Road	Sidewalks either side	0.96	\$133,800	0.21	\$29,900	1.72	\$240,500	2.9	\$404,200
Vincent Road	Sidewalk one side	0.00	\$0	0.00	\$0	0.23	\$32,500	0.2	\$32,500
Hampton Road	Sidewalks, either side and Crosswalks	0.25	\$35,000	0.70	\$97,500	0.00	\$0	0.9	\$132,500
Church Avenue	Sidewalk south side	0.00	\$0	0.24	\$33,800	0.00	\$0	0.2	\$33,800
Grove Avenue	Sidewalk west side and a crosswalk	0.00	\$0	0.63	\$88,300	0.75	\$105,300	1.4	\$193,600
Clark Road	Sidewalks and Crosswalks	0.00	\$0	0.83	\$115,600	0.00	\$0	0.8	\$115,600
Marr Road	Sidewalk west side	0.00	\$0	0.00	\$0	1.30	\$182,000	1.3	\$182,000
French Village Road	Sidewalk north side	0.00	\$0	0.00	\$0	1.30	\$182,000	1.3	\$182,000
Fox Farm Road	Sidewalk east side	0.00	\$0	0.00	\$0	0.56	\$78,000	0.6	\$78,000
Campbell Drive	Sidewalks	0.00	\$0	0.30	\$39,000	0.23	\$29,900	0.5	\$68,900
Highland Avenue	Sidewalk replacement	0.00	\$0	0.00	\$0	1.99	\$278,200	2.0	\$278,200
Donlyn Drive	Sidewalk one side	0.00	\$0	0.79	\$110,500	0.00	\$0	0.8	\$110,500
Oakville Lane	Sidewalk one side	0.16	\$22,400	0.00	\$0	0.00	\$0	0.2	\$22,400

TABLE E.6

Trail Development		0-2 Years		3-5 Years		5-10 years		Total 10 Years	
Route	Description	Km	Cost	Km	Cost	Km	Cost	Km	Cost
French Village Connection	RAP Surfaced Trail & Rte 111 Crossing	3.10	\$125,000	0.00	\$582,900	0.00	\$0	3.1	\$707,900
Hillside Trail	RAP Surfaced Trail	2.50	\$265,000	0.70	\$112,500	0.00	\$0	3.2	\$377,500
Fairvale Trail	Asphalt Surfaced Trail	0.00	\$0	0.00	\$0	1.40	\$285,000	1.4	\$285,000
Hillside Trail to Renshaw Rd	Crusher Dust Surface	0.00	\$0	0.45	\$31,500	0.00	\$0	0.5	\$31,500
Hillside Trail to Horton Road	RAP Surface	0.00	\$0	0.70	\$70,000	0.00	\$0	0.7	\$70,000
Chapel-Holland Connection	Crusher Dust Surface	0.10	\$4,000	0.00	\$0	0.00	\$0	0.1	\$4,000
Dobson-Monaco Connection	Crusher Dust Surface	0.27	\$18,900	0.00	\$0	0.00	\$0	0.3	\$18,900
K-Park Trail	Crusher Dust Surface	0.00	\$0	1.10	\$85,000	0.00	\$0	1.1	\$85,000
Riverfront Trail	Crusher Dust Surface	0.00	\$0	0.00	\$0	1.70	\$860,000	1.7	\$860,000
Oakville Trail	Crusher Dust Surface	0.00	\$0	0.85	\$79,500	0.00	\$0	0.9	\$79,500
Campbell Drive Trail	Crusher Dust Surface	0.00	\$0	0.87	\$67,750	0.00	\$0	0.9	\$67,750
Wells Trail	Crusher Dust Surface	0.00	\$0	0.85	\$52,500	0.00	\$0	0.9	\$52,500
Bradley Lake Trail	Crusher Dust Surface	0.00	\$0	0.00	\$0	1.06	\$96,900	1.1	\$96,900
Neighbourhood Connections	Crusher Dust Surface	0.85	\$38,450	1.81	\$103,900	1.29	\$92,800	3.9	\$235,150

TABLE E.7: IMPLEMENTATION PLAN - PRIMARY AT ROADWAY CORRIDORS

Roadway	AT Improvement	Location	Quantity	Unit	Unit Cost	Cost Estimate	Priority (1-High/3-Low)	
Rothesay Road	Bike Lanes	Town Limits to Hampton Road (4.8 km)	1	each	\$27,120	\$27,120	1	
	Sidewalk	N. Side - Town Limits to Dunedin Rd	2500	m	\$130	\$325,000	3	
	Sidewalk	N. Side - Dunedin Rd to ERK Park	420	m	\$130	\$54,600	1	
	Sidewalk	S. Side - Gibbon Rd to College Hill Rd	1230	m	\$130	\$159,900	3	
	Sidewalk	S.Side - Bridge to Maiden Lane	350	m	\$130	\$45,500	2	
	Sidewalk	S.Side - Maiden Lane to Hampton Rd	200	m	\$130	\$26,000	1	
	Crosswalks	Signed and Marked - Dunedin Road	1	each	\$2,500	\$2,500	2	
		Signed and Marked - Gibbon Road	1	each	\$2,500	\$2,500	2	
Gondola Point Road	Bike Lanes	Hampton Road to Almon Lane (0.5 km)	1	each	\$3,300	\$3,300	1	
		Almon Lane to Clark Road (1.1 km)	1	each	\$6,240	\$6,240	1	
		Clark Road to Town Limits (2.1 km)	1	each	\$11,940	\$11,940	1	
	Sidewalk	S. Side - Hampton Rd to Almon Ln	300	m	\$130	\$39,000	1	
	Sidewalk	N. Side - Almon Ln to Clark Rd	1100	m	\$130	\$143,000	3	
	Sidewalk	N. Side - Ball Park Ave to Kirkpatrick Rd	230	m	\$130	\$29,900	2	
	Sidewalk	N. Side - Cameron Rd to Isaac Rd	460	m	\$130	\$59,800	1	
	Sidewalk	N. Side - Frances Ave to Town Limits	750	m	\$130	\$97,500	3	
	Crosswalks	RA-5 - River Road (Programmed)	1	each	\$35,000	\$35,000	1	
	Special Projects	Road Widening - Clark Rd to River Rd	1	each	\$60,000	\$60,000	1	
Vincent Road	Bike Lanes	Gondola Point Road to Town Limits (0.25 km)	1	each	\$750	\$750	1	
	Sidewalk	N. Side - Gondola Point Rd to Town Limits	250	m	\$130	\$32,500	3	
Hampton Road	Bike Lanes	Rothesay Road to Highland Avenue (1.0 km)	1	each	\$6,000	\$6,000	1	
	Sidewalk	Rothesay Road to Arthur Miller Fields	750	m	\$130	\$97,500	2	
	Crosswalks	RA-5 - Arena/High School Entrance	1	each	\$35,000	\$35,000	1	
	Special Projects	Road Widening - Highland Ave to Town Limits	1500	m	\$400	\$600,000	2	
		Bike Lanes - Highland Ave to Town Limits	1	each	\$12,900	\$12,900	2	
		Pedestrian Refuge Islands	5	each	\$25,000	\$125,000	2	
Church Avenue	Shared Lanes	Gondola Point Road to Hampton Road (0.26 km)	1	each	\$1,800	\$1,800	1	
	Sidewalk	S. Side - Gondola Point Rd to Hampton Rd	260	m	\$130	\$33,800	2	
Grove Avenue	Bike Lanes	Hampton Road to Campbell Drive (1.5 km)	1	each	\$8,400	\$8,400	1	
	Sidewalk	W. Side - Hampton Rd to Highland Ave	660	m	\$130	\$85,800	2	
	Sidewalk	W. Side - Highland Ave to Campbell Dr	810	m	\$130	\$105,300	3	
	Crosswalks	Signed and Marked - Highland Ave	1	each	\$2,500	\$2,500	2	
Clark Road	Bike Lanes	Gondola Point Road to Hampton Road (0.9 km)	1	each	\$5,760	\$5,760	1	
	Sidewalk	W. Side - Gondola Point Rd to Hampton Rd	870	m	\$130	\$113,100	2	
	Crosswalks	Signed and Marked - Spruce Street	1	each	\$2,500	\$2,500	2	
Marr Road	Bike Lanes	Hampton Road to Campbell Drive (1.4 km)	1	each	\$8,160	\$8,160	1	
	Sidewalk	W. Side - Hampton Rd to Campbell Dr	1400	m	\$130	\$182,000	3	
French Village Road	Bike Lanes	Wells Recreation Park to Dofred Rd (1.4 km)	1	each	\$8,160	\$8,160	1	
	Sidewalk	N. Side - Wells Recreation Park to Dofred Rd	1400	m	\$130	\$182,000	3	
Fox Farm Road	Bike Lanes	Route 1 Ramp to Rothesay Road (0.6 km)	1	each	\$12,240	\$12,240	2	
	Sidewalk	E. Side - Route 1 Ramp to Rothesay Road	600	m	\$130	\$78,000	3	
Campbell Drive	Bike Lanes	Route 111 to Grove Avenue (0.3 km)	1	each	\$5,820	\$5,820	2	
	Sidewalk	Route 111 to Grove Avenue	300	m	\$130	\$39,000	2	
	Paved Shoulders (1.75m)	South of Hampton Road to Route 111	2570	m	\$90	\$231,300	2	
	Bicycle Route Signage	Hampton Road to Route 111	12	each	\$300	\$3,600	2	
	Signalized Crosswalks	Hampton Road to Route 111	7	each	\$1,500	\$10,500	2	
	Special Project 1		Road Widening - 230 m South of Hampton Road	230	m	\$420	\$96,600	3
			Sidewalk - 230 m South of Hampton Road	230	m	\$130	\$29,900	3
			Bike lanes - 230 m South of Hampton Road	1	each	\$2,500	\$2,500	3
	Special Project 2		Marr Rd - Barrier Relocation	50	m	\$200	\$10,000	2
			Marr Rd - Paved 1.8 m Pathway	50	m	\$60	\$3,000	2
		Marr Rd - Sidewalk	35	m	\$140	\$4,900	2	
Millennium Drive	Paved Shoulders (1.5m)	Campbell Drive to Town Limits	1450	m	\$90	\$130,500	1	
	Bicycle Route Signage	Campbell Drive to Town Limits	6	each	\$300	\$1,800	1	

TABLE E.8: IMPLEMENTATION PLAN - SECONDARY AT ROADWAY CORRIDORS

Roadway	AT Improvement	Location	Quantity	Unit	Unit Cost	Cost Estimate	Priority (1-High/3-Low)
Highland Avenue	Signed Bicycle Route	Hampton Rd to Grove Ave (2.3 km)	16	signs	\$300	\$4,800	2
	Sidewalk	Upgrade 1.2m Sidewalk to 1.5m	2140	m	\$130	\$278,200	3
Chapel Rd-Holland Dr	Signed Bicycle Route	Hampton Rd to Marr Rd (1.0 km)	8	signs	\$300	\$2,400	2
	Multi-Use Trail	Between Chapel Rd and Holland Dr	100	m	\$40	\$4,000	1
Donlyn Drive	Signed Bicycle Route	Millennium Dr to Town Limits (0.85 km)	8	signs	\$300	\$2,400	2
	Sidewalk	Millennium Dr to Town Limits	850	m	\$130	\$110,500	2
Dobson Ln-Monaco Dr-Oakville Ln	Signed Bicycle Route	Gondola Point Rd to Hampton Rd (1.25 km)	10	signs	\$300	\$3,000	2
	Sidewalk	E. Side of Oakville Ln - Monaco Drive to Hampton Road	160	m	\$140	\$22,400	1
	Multi-Use Trail	Between Dobson Ln and Monaco Dr	270	m	\$70	\$18,900	1
Renshaw Road	Signed Bicycle Route	Rothesay Rd to End of Road (1.05 km)	6	signs	\$300	\$1,800	2
	Multi-Use Trail	Renshaw Rd to Hillside Trail	450	m	\$70	\$31,500	2
Horton Rd-Dunedin Rd	Signed Bicycle Route	Rothesay Rd to End of Road (0.8 km)	10	signs	\$300	\$3,000	2
	Multi-Use Trail	Horton Rd to Hillside Trail	700	m	\$100	\$70,000	2
Wiljac St-Neil St-Beauvista St	Signed Bicycle Route	Fox Farm to End of Wiljac St (0.57 km)	6	signs	\$300	\$1,800	2
	Road Widening	Widen for 1.5 m shoulder	570	m	\$50	\$28,500	3
Acadia Avenue	Signed Bicycle Route	French Village Rd to End of Road (0.14 km)	2	signs	\$300	\$600	2
French Village Road	Signed Bicycle Route	Dofred Road to Town Limits (1.1 km)	6	signs	\$300	\$1,800	2

TABLE E.9: IMPLEMENTATION PLAN - PRIMARY AT TRAILS

Roadway	AT Improvement	Location	Quantity	Unit	Unit Cost	Cost Estimate	Priority (1-High/3-Low)	
French Village Connection	Trail Development	Wells Rec Park to Dolan Road	Trail Construction	2500	m	\$150	\$375,000	2
			Boardwalk	100	m	\$1,000	\$100,000	2
			Signage and Gates	1	LS	\$15,000	\$15,000	2
		Dolan Road to Route 1 U/P	Trail Construction	400	m	\$140	\$56,000	2
			Signage	1	LS	\$1,500	\$1,500	2
			Route 1 U/P to Campbell Dr	Trail Construction	100	m	\$140	\$14,000
	Crosswalk	Route 111 @ Dolan Rd	Signage	1	LS	\$500	\$500	2
			Curbing	70	m	\$120	\$8,400	2
			Concrete	75	sq.m	\$100	\$7,500	2
	Road Improvements	Dolan Road Turn Lane Bicentennial Park Access	Signage and Markings	1	LS	\$5,000	\$5,000	2
				1	LS	\$50,000	\$50,000	1
	Sub-Total French Village Connection						\$707,900	
	Hillside Trail	Trail Development	Grove Avenue to Horton Rd Trail Extension	Trail Surfacing	2500	m	\$100	\$250,000
Signage and Gates				1	LS	\$15,000	\$15,000	1
Horton Rd Trail to Wiljac Street			Trail Construction	700	m	\$150	\$105,000	2
			Signage and Gates	1	LS	\$7,500	\$7,500	2
Sub-Total Hillside Trail						\$377,500		
Fairvale Trail	Trail Development	Gondola Point Rd to Town Limits	Trail Construction	1400	m	\$200	\$280,000	3
			Signage	1	LS	\$5,000	\$5,000	3
Sub-Total Fairvale Trail						\$285,000		

TABLE E.10: IMPLEMENTATION PLAN - SECONDARY AT TRAILS

Roadway	AT Improvement	Location	Quantity	Unit	Unit Cost	Cost Estimate	Priority (1-High/3-Low)	
K-Park Trail	Trail Development	Park Dr to James Renforth Dr	Trail Construction	1100	m	\$75	\$82,500	2
			Signage	1	LS	\$2,500	\$2,500	2
Riverfront Trail	Trail Development	Renforth Park to ERK Park	Trail Construction	1700	m	\$500	\$850,000	3
			Signage	1	LS	\$10,000	\$10,000	3
Oakville Trail	Trail Development	Clark Rd to Monaco Dr	Trail Construction	850	m	\$90	\$76,500	2
			Signage	1	LS	\$3,000	\$3,000	2
Campbell Drive Trail	Trail Development	Islay Drive to Fire Station	Trail Construction	870	m	\$75	\$65,250	2
			Signage	1	LS	\$2,500	\$2,500	2
Wells Trail	Trail Development	Clark Rd to Monaco Dr	Trail Construction	850	m	\$60	\$51,000	2
			Signage	1	LS	\$1,500	\$1,500	2
Bradley Lake Trail	Trail Development	Clark Rd to Monaco Dr	Trail Construction	1060	m	\$90	\$95,400	3
			Signage	1	LS	\$1,500	\$1,500	3

TABLE E.10: IMPLEMENTATION PLAN - SECONDARY AT TRAILS

Roadway	AT Improvement	Location		Quantity	Unit	Unit Cost	Cost Estimate	Priority (1-High/3-Low)
K-Park Trail	Trail Development	Park Dr to James Renforth Dr	Trail Construction	1100	m	\$75	\$82,500	2
			Signage	1	LS	\$2,500	\$2,500	2
Riverfront Trail	Trail Development	Renforth Park to ERK Park	Trail Construction	1700	m	\$500	\$850,000	3
			Signage	1	LS	\$10,000	\$10,000	3
Oakville Trail	Trail Development	Clark Rd to Monaco Dr	Trail Construction	850	m	\$90	\$76,500	2
			Signage	1	LS	\$3,000	\$3,000	2
Campbell Drive Trail	Trail Development	Islay Drive to Fire Station	Trail Construction	870	m	\$75	\$65,250	2
			Signage	1	LS	\$2,500	\$2,500	2
Wells Trail	Trail Development	Clark Rd to Monaco Dr	Trail Construction	850	m	\$60	\$51,000	2
			Signage	1	LS	\$1,500	\$1,500	2
Bradley Lake Trail	Trail Development	Clark Rd to Monaco Dr	Trail Construction	1060	m	\$90	\$95,400	3
			Signage	1	LS	\$1,500	\$1,500	3

TABLE E.11: SECONDARY TRAILS AND NEIGHBOURHOOD CONNECTIONS

Appendix C Map #	From/To	Distance (m)	Existing Trail	Existing ROW/ Town Property	Comments	Unit Cost per m	Cost Estimate	Priority (1-High/3- Low)
2	Broadway Street to Forest Road	110	Partial	Yes		40	\$4,400	2
3	Crescent Drive to Elizabeth Parkway	130	No	Yes		60	\$7,800	2
4	Holiday Drive to Crescent Drive	110	Partial	Yes		40	\$4,400	2
5	Holiday Drive to Kildare Court	110	Partial	Yes		40	\$4,400	2
6	Glen Avenue to Mercer Drive	100	No	Yes		70	\$7,000	3
7	Bartlett Road to Maplecrest Drive	250	No	No	*Steep Grade. Bartlett Road is private	80	\$20,000	3
9	Riverside Drive to Higginson Avenue	360	No	No		70	\$25,200	3
13	Scribner Crescent to Anoka Lane	150	Partial	Partial	Crossing on Campbell Drive Required	50	\$7,500	2
14	Superstore to Zackery Court, Devonayer Court, Alexscot Court	325	No	No		60	\$19,500	2
15	Glenwood Drive to Barra Court	80	No	Yes		50	\$4,000	2
16	Charles Crescent to Colonsay Place	60	Yes	Yes		40	\$2,400	1
17	Islay Drive to Iona Avenue	165	Partial	Yes	Within Utility Corridor	50	\$8,250	1
18	Fernwood Lane to Highland Avenue	80	Yes	Yes	Within Utility Corridor	40	\$3,200	1
19	Arthur Avenue to Clermont Lane	100	No	No	To intersect with Robertson Drive Extension	70	\$7,000	1
20	Islay Drive to Campbell Drive	170	Yes	No		50	\$8,500	2
21	Charles Crescent to Campbell Drive	50	No	No		70	\$3,500	2
22	Harry Miller Court to Campbell Drive	130	No	Yes		70	\$9,100	2
23	Highland Avenue to Campbell Drive	160	No	Yes		70	\$11,200	2
25	Maliseet Drive to Fall Lane/River Road	100	No	No		70	\$7,000	3
26	Pickett Lane to Ball Park Avenue	115	No	Yes		70	\$8,050	2
27	Cameron Road to Beach Drive	165	No	Partial		70	\$11,550	2
28	Cove Crescent to Gondola Point Road	50	Yes	Yes		40	\$2,000	1
29	Milne St to Fairvale Elementary School	50	Yes	Yes		40	\$2,000	1
30	Burns Avenue to Railside Trail	180	No	No		70	\$12,600	3
31	School Avenue to Railside Trail	150	No	No		70	\$10,500	3
32	Kaitlyn Street to Railside Trail	50	No	Yes		70	\$3,500	3
34	Kirkpatrick Road to Railside Trail	100	No	Yes		70	\$7,000	3
36	Dobbin Street to Sierra Drive	100	Yes	Yes		40	\$4,000	1
37	Sprucewood Avenue to Spruce Street	75	Yes	Yes		40	\$3,000	1
38	Spruce Street to Harry Miller School	75	Yes	Yes		40	\$3,000	1
39	Woodland Ave to Hampton Road	90	Yes	Yes		40	\$3,600	1

TABLE E.12: BIKE LANE COSTING DETAILS

Roadway	AT Improvement	Location	Quantity	Unit	Unit Cost	Total Cost
Rothersey Road	Bike Lanes	Town Limits to Hampton Road (4.8 km)				
			Bike Lane Lines (per side)	9.6 km	\$1,200	\$11,520
			Bike Lane Signs (@ 400m)	24 each	\$300	\$7,200
			Bike Lane Pavement Markings (@200 m)	48 each	\$150	\$7,200
			Shared Lane Single File Signs	2 each	\$300	\$600
			Sharrows	4 each	\$150	\$600
Sub-Total Rothersey Road						\$27,120
Gondola Point Road	Bike Lanes	Hampton Road to Almon Lane (0.5 km)				
			Bike Lane Lines (per side)	1.0 km	\$1,200	\$1,200
			Bike Lane Signs (@ 400m)	4 each	\$300	\$1,200
	Shared Lanes	Almon Lane to Clark Road (1.1 km)				
			Bike Lane Pavement Markings (@ 200 m)	6 each	\$150	\$900
			Bike Lane Lines (per side)	2.2 km	\$1,200	\$2,640
	Bike Lanes	Clark Road to Town Limits (2.1 km)				
			Bike Lane Signs (@ 400m)	6 each	\$300	\$1,800
			Bike Lane Pavement Markings (@ 200 m)	12 each	\$150	\$1,800
			Bike Lane Lines (per side)	4.2 km	\$1,200	\$5,040
Sub-Total Gondola Point Road						\$21,480
Vincent Road	Shared Lanes	Gondola Point Road to Town Limits (0.25 km)				
			Share the Road Signs (@ 200m)	0.5 km	\$300	\$150
			Sharrows (@ 200m)	4 each	\$150	\$600
Sub-Total Vincent Road						\$750
Hampton Road	Bike Lanes	Rothersey Road to Highland Avenue (1.0 km)				
			Bike Lane Lines (per side)	2.0 km	\$1,200	\$2,400
			Bike Lane Signs (@ 400m)	6 each	\$300	\$1,800
			Bike Lane Pavement Markings (@ 200 m)	12 each	\$150	\$1,800
		Highland Avenue to Town Limits (1.5 km)				
			Bike Lane Lines (per side)	3.0 km	\$1,200	\$3,600
	Bike Lane Signs (@ 200m)	16 each	\$300	\$4,800		
	Bike Lane Pavement Markings (@ 100 m)	30 each	\$150	\$4,500		
Sub-Total Hampton Road						\$18,900
Church Avenue	Shared Lanes	Gondola Point Road to Hampton Road (0.25 km)				
			Share the Road Signs (@ 200m)	4 each	\$300	\$1,200
			Sharrows (@ 200m)	4 each	\$150	\$600
Sub-Total Church Avenue						\$1,800
Grove Avenue	Bike Lanes	Hampton Road to Campbell Drive (1.5 km)				
			Bike Lane Lines (per side)	3.0 km	\$1,200	\$3,600
			Bike Lane Signs (@ 400m)	8 each	\$300	\$2,400
			Bike Lane Pavement Markings (@ 200 m)	16 each	\$150	\$2,400
Sub-Total Grove Avenue						\$8,400
Clark Road	Bike Lanes	Gondola Point Road to Hampton Road (0.9 km)				
			Bike Lane Lines (per side)	1.8 km	\$1,200	\$2,160
			Bike Lane Signs (@ 400m)	6 each	\$300	\$1,800
			Bike Lane Pavement Markings (@ 200 m)	12 each	\$150	\$1,800
Sub-Total Clark Road						\$5,760
Marr Road	Bike Lanes	Hampton Road to Campbell Drive (1.4 km)				
			Bike Lane Lines (per side)	2.8 km	\$1,200	\$3,360
			Bike Lane Signs (@ 400m)	8 each	\$300	\$2,400
			Bike Lane Pavement Markings (@ 200 m)	16 each	\$150	\$2,400
Sub-Total Marr Road						\$8,160
French Village Road	Bike Lanes	Wells Recreation Park to Dofred Rd (1.4 km)				
			Bike Lane Lines (per side)	2.8 km	\$1,200	\$3,360
			Bike Lane Signs (@ 400m)	8 each	\$300	\$2,400
			Bike Lane Pavement Markings (@ 200 m)	16 each	\$150	\$2,400
Sub-Total French Village Road						\$8,160
Fox Farm Road	Bike Lanes	Route 1 Ramp to Rothersey Road (0.6 km)				
			Edge Line Removal (per side)	1.2 km	5000	\$6,000
			Bike Lane Lines (per side)	1.2 km	\$1,200	\$1,440
			Bike Lane Signs (@ 400m)	8 each	\$300	\$2,400
			Bike Lane Pavement Markings (@ 200 m)	16 each	\$150	\$2,400
Sub-Total Fox Farm Road						\$12,240
Campbell Drive	Bike Lanes	Route 111 to Grove Avenue (0.3 km)				
			Edge Line Removal (per side)	0.6 km	5000	\$3,000
			Bike Lane Lines (per side)	0.6 km	\$1,200	\$720
			Bike Lane Signs (@ 400m)	4 each	\$300	\$1,200
			Bike Lane Pavement Markings (@ 200 m)	6 each	\$150	\$900
Sub-Total Campbell Drive						\$5,820
TOTAL						\$118,590

Bike Lane Lines	\$38,550
Bike Lane Signs	\$33,600
Bike Lane Pavement Markings	#REF!
Edge Line Removal	\$9,000

TABLE E.13						
Opinion of Probable Costs for Roadway Improvements						
Item Description	Unit	Quantity	Unit Price	Amount	COMMENTS	
Gondola Point Road (Clark Rd to River Rd)						
Road Widening for bike lanes (120m N. Side, 80m S. Side)						
Excavate and build out road base granulars	m	200.0	\$25.00	\$5,000.00	2.5 m wide	
Replace curb	m	200.0	\$95.00	\$19,000.00		
Catch Basin Relocations	each	2.0	\$2,500.00	\$5,000.00		
Add 1.0 m pavement	m	200.0	\$100.00	\$20,000.00	140mm thickness	
1.5 m sidewalk, one side only	m	80.0	\$120.00	\$9,600.00	100 mm thickness	
			Total	\$58,600.00		
Marr Road						
Sidewalk Only						
Excavation and Granular Base	m	1400.0	\$16.00	\$22,400.00	1.5mx0.2m base thickness	
100mm Sidewalk	m	1200.0	\$120.00	\$144,000.00	1.5m wide	
150mm sidewalk at driveways	m	200.0	\$180.00	\$36,000.00	1.5m wide	
			Total	\$202,400.00		
SP-Road Widening (to be carried out in conjunction with Marr Road Pavement Reconstruction)						
Remove and replace curb and gutter	m	1400.0	\$95.00	\$133,000.00		
Excavate and build out road base granulars	m	1400.0	\$15.00	\$21,000.00	1.5m wide	
0.3m pave	m	200.0	\$13.00	\$2,600.00	140mm thickness	
			Total	\$156,600.00		
Campbell Drive						
Paved Shoulder Widening - 1.75m lane x 2						
Sawcut and mill Joint	m	2570.0	\$4.00	\$10,280.00		
Shoulder grading and buildup granular material	m	2570.0	\$10.00	\$25,700.00		
Pave Shoulder (50 mm thickness)	m	2570.0	\$75.00	\$192,750.00		
			Total	\$228,730.00		
SP1-Road Widening (to be carried out in conjunction with Campbell Road Pavement Reconstruction)						
Remove and replace curb and gutter	m	460.0	\$95.00	\$43,700.00		
Excavate and build out road base granulars	m	460.0	\$15.00	\$6,900.00		
1.0m pave each side	m	460.0	\$100.00	\$46,000.00		
1.5 m sidewalk, one side only	m	230.0	\$130.00	\$29,900.00		
			Total	\$126,500.00		
Millennium Drive						
Paved Shoulder Widening - 1.5m lane x 2						
Sawcut and mill Joint	m	1450.0	\$4.00	\$5,800.00		
Shoulder grading and buildup granular material	m	1450.0	\$8.00	\$11,600.00		
Pave Shoulder (50 mm thickness)	m	1450.0	\$75.00	\$108,750.00		
			Total	\$126,150.00		

TABLE E.14						
Opinion of Probable Costs for Trail Construction						
Item Description	Unit	Quantity	Unit Price	Amount	COMMENTS	
French Village Connection						
Wells Rec Park to Dolan Road						
Clear and Grubbing	m	2500.0	\$16.00	\$40,000.00	8m wide clear and grubb	
Excavate, Cut and Fill	m	2500.0	\$24.00	\$60,000.00		
Grannular Base	m	2500.0	\$30.00	\$75,000.00	150mm thickness x 5m	
RAP Surfacing	m	2500.0	\$62.00	\$155,000.00	100mm thickness x 3m	
Shoulder Topsoil and Hydroseed	m	2500.0	\$15.00	\$37,500.00		
Boardwalk	m	100.0	\$1,000.00	\$100,000.00		
Signage	ls	1.0	\$5,000.00	\$5,000.00		
Trail Control - Gates/ Trail Head Features	each	2.0	\$5,000.00	\$10,000.00		
			Total	\$482,500.00		
Dolan Road to Route 1 Over Pass						
Clear and Grubbing	m	400.0	\$12.00	\$4,800.00	8m wide clear and grubb	
Excavate, Cut and Fill	m	400.0	\$24.00	\$9,600.00		
Grannular Base	m	400.0	\$30.00	\$12,000.00	150mm thickness x 5m	
RAP Surfacing	m	400.0	\$62.00	\$24,800.00	100mm thickness x 3m	
Shoulder Topsoil and Hydroseed	m	400.0	\$15.00	\$6,000.00		
Signage	ls	1.0	\$1,500.00	\$1,500.00		
Trail Control - Gates/ Trail Head Features	each	0.0	\$5,000.00	\$0.00		
			Total	\$58,700.00		
Route 1 Over Pass to Campbell Drive						
Clear and Grubbing	m	100.0	\$12.00	\$1,200.00	8m wide clear and grubb	
Excavate, Cut and Fill	m	100.0	\$24.00	\$2,400.00		
Grannular Base	m	100.0	\$30.00	\$3,000.00	150mm thickness x 5m	
RAP Surfacing	m	100.0	\$62.00	\$6,200.00	100mm thickness x 3m	
Shoulder Topsoil and Hydroseed	m	100.0	\$15.00	\$1,500.00		
Signage	ls	1.0	\$1,500.00	\$1,500.00		
Trail Control - Gates/ Trail Head Features	each	0.0	\$5,000.00	\$0.00		
			Total	\$15,800.00		
Hillside Trail						
Grove Avenue to Horton Road Trail Extension						
Regrade Granular Base	m	2500.0	\$2.00	\$5,000.00		
RAP Surfacing	m	2500.0	\$82.00	\$205,000.00	100mm thickness x 4m	
Shoulder Topsoil and Hydroseed	m	2500.0	\$15.00	\$37,500.00		
Signage	ls	1.0	\$2,500.00	\$2,500.00		
Trail Control - Gates/ Trail Head Features	each	2.0	\$1,500.00	\$3,000.00		
			Total	\$253,000.00		
Horton Road To Wiljac Street						
Clear and Grubbing	m	700.0	\$16.00	\$11,200.00	8m wide clear and grubb	
Excavate, Cut and Fill	m	700.0	\$24.00	\$16,800.00		
Grannular Base	m	700.0	\$30.00	\$21,000.00	150mm thickness x 5m	
RAP Surfacing	m	700.0	\$62.00	\$43,400.00	100mm thickness x 3m	
Shoulder Topsoil and Hydroseed	m	700.0	\$15.00	\$10,500.00		
Signage	ls	1.0	\$2,500.00	\$2,500.00		
Trail Control - Gates/ Trail Head Features	each	1.0	\$5,000.00	\$5,000.00		
			Total	\$110,400.00		
Fairvale Trail						
Gondola Point Road to Town Limits						
Clear and Grubbing	m	1400.0	\$16.00	\$22,400.00	8m wide clear and grubb	
Excavate, Cut and Fill	m	1400.0	\$24.00	\$33,600.00		
Grannular Base	m	1400.0	\$30.00	\$42,000.00	150mm thickness x 5m	
Asphalt Surfacing	m	1400.0	\$100.00	\$140,000.00	60mm thickness x 3m	
Shoulder Topsoil and Hydroseed	m	1400.0	\$15.00	\$21,000.00		
Signage	ls	1.0	\$5,000.00	\$5,000.00		
Trail Control - Gates/ Trail Head Features	each	2.0	\$5,000.00	\$10,000.00		
			Total	\$274,000.00		