APPENDIX A2

MaineDOT Statewide Active Transportation Plan
Lower Road State-owned Rail Corridor - MP 29.34 in Brunswick to MP 63.07 in Augusta

Conceptual Project Cost Estimate for Trail-Until-Rail with Stone Dust/Gravel Wearing Surface

Segment 1: Federal Street (Brunswick) to Tedford Road (Topsham)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 1	29.50	N/A	N/A	N/A	N/A	N/A	29.62	UG	41	1	Girder	Open	No	$ 18,450
							29.94	UG	193	4	Girder	Ballasted	No	$ 86,850
							31.15	UG	40	1	Girder	Open	No	$ 18,000
							30.22	UG	860	5	Truss & Girder	Open	No	$ 387,000
							30.54	UG	45	1	Girder	Open	No	$ 20,250
							30.79	OH	300	1	3-Sided Rigid Frame	N/A	No	$ -
Tedford Road	31.10	8,448	$ 1,013,760	2	UP	$ 55,000								
End Segment 1	31.10	0	$ -	N/A	N/A	N/A								
Subtotals:		8,448	$ 1,013,760			$ 55,000								$ 530,550

Construction Subtotal	$ 1,599,310
Contingency (30%)	$ 479,793
Construction Total	$ 2,079,103
Design Engineering (10%)	$ 207,910
Construction Administration & Engineering (15%)	$ 311,865
Segment 1 Total	$ 2,598,879
Segment 1 Total, Say	**$ 2,600,000**

Segment 2: Tedford Road (Topsham) to Main Street (Richmond)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 2	31.10	N/A	N/A	N/A	N/A	N/A								
Beechwood Drive	32.47	7,234	$ 868,032	1	UP	$ 40,000								
Cathance Road	33.06	3,115	$ 373,824	2	40	$ 75,000	33.71	UG	110	1	Truss	Open	No	$ 49,500
							34.31	UG	10	1	Masonry Arch	Ballasted	No	$ 4,500
							36.34	UG	22	1	Girder	Ballasted	No	$ 9,900
Center Street	36.92	20,381	$ 2,445,696	2	35	$ 75,000								
Main Street	36.98	317	$ 38,016	1	UP	$ 40,000	37.01	UG	25	1	Girder	Ballasted	No	$ 11,250
							37.25	UG	37	1	Girder	Ballasted	No	$ 16,650
							37.28	UG	28	1	Girder	Ballasted	No	$ 12,600
Browns Point Road	38.30	6,970	$ 836,352	2	45	$ 55,000	40.09	UG	18	1	Girder	Open	No	$ 8,100
							40.38	UG	85	3	Girder	Open	No	$ 38,250
River Road	40.55	11,880	$ 1,425,600	2	50	$ 55,000								
High Street	44.14	18,955	$ 2,274,624	1	25	$ 40,000								
Gardiner St.	44.62	2,534	$ 304,128	1	UP	$ 40,000								
Pleasant Street	44.70	422	$ 50,688	1	UP	$ 40,000								
Weymouth Street	44.73	158	$ 19,008	1	UP	$ 40,000								
Main Street	44.76	158	$ 19,008	3	25	$ 75,000								
End Segment 2	44.76	N/A	N/A	N/A	N/A	N/A								
Subtotals:		72,125	$ 8,654,976			$ 575,000								$ 150,750

Construction Subtotal	$ 9,380,726
Contingency (30%)	$ 2,814,218
Construction Total	$ 12,194,944
Design Engineering (10%)	$ 1,219,494
Construction Administration & Engineering (15%)	$ 1,829,242
Segment 1 Total	$ 15,243,680
Segment 2 Total, Say	**$ 15,300,000**

Conceptual Project Cost Estimate for Trail-Until-Rail with Stone Dust/Gravel Wearing Surface

Segment 3: Main Street (Richmond) to Start of Kennebec River Rail Trail (Gardiner)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 3	44.76	N/A	N/A	N/A	N/A	N/A								
Kimball Street	44.90	739	$ 88,704	1	25	$ 40,000	45.05	UG	10	1	Masonry Arch	Ballasted	No	$ 4,500
Bridge Street	45.13	1,214	$ 145,728	1	UP	$ 40,000								
Lincoln Street	45.18	264	$ 31,680	1	25	$ 40,000								
Old Ferry Road	45.68	2,640	$ 316,800	1	UP	$ 40,000	45.92	UG	35	1	No Superstructure	N/A	N/A	$ 175,000
							50.18	UG	66	1	Girder	Open	No	$ 29,700
							51.42	UG	64	1	Girder	Open	No	$ 28,800
Riverside/Depot	51.86	32,630	$ 3,915,648	1	UP	$ 40,000								
Church Street	52.33	2,482	$ 297,792	1	UP	$ 40,000								
Mill Street	52.70	1,954	$ 234,432	1	UP	$ 40,000	53.59	UG	65	1	Girder	Open	No	$ 29,250
							55.92	UG	57	2	Girder	Open	Yes	$ 25,650
							55.94	UG	15	1	Concrete Slab	Ballasted	No	$ 6,750
Depot Street	56.02	17,530	$ 2,103,552	1	UP	$ 40,000	56.08	UG	83	2	Girder	Open	No	$ 37,350
End Segment 3	56.29	1,426	$ 171,072	N/A	N/A	N/A								
Subtotals:		60,878	$ 7,305,408			$ 320,000								$ 337,000

Construction Subtotal	$ 7,962,408
Contingency (30%)	$ 2,388,722
Construction Total	$ 10,351,130
Design Engineering (10%)	$ 1,035,113
Construction Administration & Engineering (15%)	$ 1,552,670
Segment 2 Total	$ 12,938,913
Segment 3 Total, Say	**$ 13,000,000**

Segment 4: Existing Section of Off-Corridor/On-Road Trail Of the Kennebec River Rail Trail (Hallowell)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 4	59.57	N/A	N/A	N/A	N/A	N/A								
Second Street	59.96	2,059	$ 247,104	1	UP	$ 40,000								
Chestnut Street	60.13	898	$ 107,712	1	UP	$ 40,000								
Academy Street	60.22	475	$ 57,024	1	25	$ 40,000								
Union Street	60.26	211	$ 25,344	1	UP	$ 40,000								
Central Street	60.32	317	$ 38,016	1	25	$ 40,000								
Winthrop Street	60.39	370	$ 44,352	2	25	$ 55,000	60.50	OH	68	1	Concrete Slab	N/A	No	$ -
							60.60	UG	109	1	Girder	Open	Yes	$ 49,050
End Segment 4	60.80	2,534	$ 304,128	N/A	N/A	N/A								
Subtotals:		6,864	$ 823,680			$ 255,000								$ 49,050

Construction Subtotal	$ 1,127,730
Contingency (30%)	$ 338,319
Construction Total	$ 1,466,049
Design Engineering (10%)	$ 146,605
Construction Administration & Engineering (15%)	$ 219,907
Segment 3 Total	$ 1,832,561
Segment 4 Total, Say	**$ 1,900,000**

Conceptual Project Cost Estimate for Trail-Until-Rail with Stone Dust/Gravel Wearing Surface

Segment 5: Memorial Bridge (Augusta) to East Side of Railroad Bridge No. 7640 (Augusta)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 5	62.34	N/A	N/A	N/A	N/A	N/A	62.42	OH	67	1	Girder	N/A	Yes	
Winthrop Street	62.59	1,320	$ 158,400	1	UP	$ 40,000								
Bridge Street	62.74	792	$ 95,040	1	UP	$ 40,000	62.84	UG	126	2	Girder	N/A	No	$ 56,700
							62.85	UG	1115	11	Girder/ Deck Truss	N/A	No	$ 501,525
Project End/ End Segment 5	63.00	1,373	$ 15,876	N/A	N/A	N/A								
Subtotals:		3,485	$ 269,316			$ 80,000								$ 558,225

Estimated Average Unit Cost for Removing Rail & Ties and Constructing Stone Dust Trail:
$ 120 /LF

Estimated Unit Costs for At-grade Xing Improvements:

Type 1 = Small Local Road	$ 35,000 /Each	$ 5,000	= Speed </= 30 MPH
Type 2 = Standard State Route	$ 50,000 /Each	$ 25,000	= Speed = 35 MPH or 40 MPH
Type 3 = Large Crossing	$ 70,000 /Each	$ 5,000	= Speed >/= 45 MPH

These costs assume full removal and replacement of pavement within 5' of the rails

UP = Unposted assumed to be 30 MPH or lower

Estimated Average Unit Cost for Adding Timber Decking & Railing on Open Timber Deck Bridges:
$ 450 /LF

Construction Subtotal	$	907,541
Contingency (30%)	$	272,262
Construction Total	$	1,179,803
Design Engineering (10%)	$	117,980
Construction Administration & Engineering (15%)	$	176,970
Segment 4 Total	$	1,474,754
Segment 5 Total, Say	**$**	**1,500,000**
Total All Segments, Say	**$**	**34,300,000**

Conceptual Project Cost Estimate for Trail-Until-Rail with HMA Pavement Wearing Surface

Segment 1: Federal Street (Brunswick) to Tedford Road (Topsham)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 1	29.50	N/A	N/A	N/A	N/A	N/A	29.62	UG	41	1	Girder	Open	No	$ 18,450
							29.94	UG	193	4	Girder	Ballasted	No	$ 86,850
							31.15	UG	40	1	Girder	Open	No	$ 18,000
							30.22	UG	860	5	Truss & Girder	Open	No	$ 387,000
							30.54	UG	45	1	Girder	Open	No	$ 20,250
							30.79	OH	300	1	3-Sided Rigid Frame	N/A	No	$ -
Tedford Road	31.10	8,448	$ 1,309,440	2	UP	$ 55,000								
End Segment 1	31.10	0	$ -	N/A	N/A	N/A								
Subtotals:		8,448	$ 1,309,440			$ 55,000								$ 530,550

Construction Subtotal	$ 1,894,990
Contingency (30%)	$ 568,497
Construction Total	$ 2,463,487
Design Engineering (10%)	$ 246,349
Construction Administration & Engineering (15%)	$ 369,523
Segment 1 Total	$ 3,079,359
Segment 1 Total, Say	**$ 3,100,000**

Segment 2: Tedford Road (Topsham) to Main Street (Richmond)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 2	31.10	N/A	N/A	N/A	N/A	N/A								
Beechwood Drive	32.47	7,234	$ 1,121,208	1	UP	$ 40,000								
Cathance Road	33.06	3,115	$ 482,856	2	40	$ 75,000	33.71	UG	110	1	Truss	Open	No	$ 49,500
							34.31	UG	10	1	Masonry Arch	Ballasted	No	$ 4,500
							36.34	UG	22	1	Girder	Ballasted	No	$ 9,900
Center Street	36.92	20,381	$ 3,159,024	2	35	$ 75,000								
Main Street	36.98	317	$ 49,104	1	UP	$ 40,000	37.01	UG	25	1	Girder	Ballasted	No	$ 11,250
							37.25	UG	37	1	Girder	Ballasted	No	$ 16,650
							37.28	UG	28	1	Girder	Ballasted	No	$ 12,600
Browns Point Road	38.30	6,970	$ 1,080,288	2	45	$ 55,000	40.09	UG	18	1	Girder	Open	No	$ 8,100
							40.38	UG	85	3	Girder	Open	No	$ 38,250
River Road	40.55	11,880	$ 1,841,400	2	50	$ 55,000								
High Street	44.14	18,955	$ 2,938,056	1	25	$ 40,000								
Gardiner St.	44.62	2,534	$ 392,832	1	UP	$ 40,000								
Pleasant Street	44.70	422	$ 65,472	1	UP	$ 40,000								
Weymouth Street	44.73	158	$ 24,552	1	UP	$ 40,000								
Main Street	44.76	158	$ 24,552	3	25	$ 75,000								
End Segment 2	44.76	0	$ -	N/A	N/A	N/A								
Subtotals:		72,125	$ 11,179,344			$ 575,000								$ 150,750

Construction Subtotal	$ 11,905,094
Contingency (30%)	$ 3,571,528
Construction Total	$ 15,476,622
Design Engineering (10%)	$ 1,547,662
Construction Administration & Engineering (15%)	$ 2,321,493
Segment 1 Total	$ 19,345,778
Segment 2 Total, Say	**$ 19,400,000**

Conceptual Project Cost Estimate for Trail-Until-Rail with HMA Pavement Wearing Surface

Segment 3: Main Street (Richmond) to Start of Kennebec River Rail Trail (Gardiner)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 3	44.90	N/A	N/A	N/A	N/A	N/A								
Kimball Street	44.90	739	$ 114,576	1	25	$ 40,000	45.05	UG	10	1	Masonry Arch	Ballasted	No	$ 4,500
Bridge Street	45.13	1,214	$ 188,232	1	UP	$ 40,000								
Lincoln Street	45.18	264	$ 40,920	1	25	$ 40,000								
Old Ferry Road	45.68	2,640	$ 409,200	1	UP	$ 40,000	45.92	UG	35	1	No Superstructure	N/A	N/A	$ 175,000
							50.18	UG	66	1	Girder	Open	No	$ 29,700
							51.42	UG	64	1	Girder	Open	No	$ 28,800
Riverside/Depot	51.86	32,630	$ 5,057,712	1	UP	$ 40,000								
Church Street	52.33	2,482	$ 384,648	1	UP	$ 40,000								
Mill Street	52.70	1,954	$ 302,808	1	UP	$ 40,000	53.59	UG	65	1	Girder	Open	No	$ 29,250
							55.92	UG	57	2	Girder	Open	Yes	$ 25,650
							55.94	UG	15	1	Concrete Slab	Ballasted	No	$ 6,750
Depot Street	56.02	17,530	$ 2,717,088	1	UP	$ 40,000	56.08	UG	83	2	Girder	Open	No	$ 37,350
End Segment 3	56.29	1,426	$ 220,968	N/A	N/A	N/A								
Subtotals:		60,878	$ 9,436,152			$ 320,000								$ 337,000

Construction Subtotal	$ 10,093,152
Contingency (30%)	$ 3,027,946
Construction Total	$ 13,121,098
Design Engineering (10%)	$ 1,312,110
Construction Administration & Engineering (15%)	$ 1,968,165
Segment 2 Total	$ 16,401,372
Segment 3 Total, Say	**$ 16,500,000**

Segment 4: Existing Section of Off-Corridor/On-Road Trail Of the Kennebec River Rail Trail (Hallowell)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Remove Rail & Construct	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF	Trail Cost	Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 4	59.57	N/A	N/A	N/A	N/A	N/A								
Second Street	59.96	2,059	$ 319,176	1	UP	$ 40,000								
Chestnut Street	60.13	898	$ 139,128	1	UP	$ 40,000								
Academy Street	60.22	475	$ 73,656	1	25	$ 40,000								
Union Street	60.26	211	$ 32,736	1	UP	$ 40,000								
Central Street	60.32	317	$ 49,104	1	25	$ 40,000								
Winthrop Street	60.39	370	$ 57,288	2	25	$ 55,000	60.50	OH	68	1	Concrete Slab	N/A	No	$ -
							60.60	UG	109	1	Girder	Open	Yes	$ 49,050
Project End/ End Segment 4	60.80	2,534	$ 392,832	N/A	N/A	N/A								
Subtotals:		6,864	$ 1,063,920			$ 255,000								$ 49,050

Construction Subtotal	$ 1,367,970
Contingency (30%)	$ 410,391
Construction Total	$ 1,778,361
Design Engineering (10%)	$ 177,836
Construction Administration & Engineering (15%)	$ 266,754
Segment 3 Total	$ 2,222,951
Segment 4 Total, Say	**$ 2,300,000**

Conceptual Project Cost Estimate for Trail-Until-Rail with HMA Pavement Wearing Surface

Segment 5: Memorial Bridge (Augusta) to East Side of Railroad Bridge No. 7640 (Augusta)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 5	62.34	N/A	N/A	N/A	N/A	N/A	62.42	OH	67	1	Girder	N/A	Yes	
Winthrop Street	62.59	1,320	$ 204,600	1	UP	$ 40,000								
Bridge Street	62.74	792	$ 122,760	1	UP	$ 40,000	62.84	UG	126	2	Girder	N/A	No	$ 56,700
							62.85	UG	1115	11	Girder/ Deck Truss	N/A	No	$ 501,525
Project End/ End Segment 5	63.00	1,373	$ 20,506	N/A	N/A	N/A								
Subtotals:		3,485	$ 347,866			$ 80,000								$ 558,225

Estimated Average Unit Cost for Removing Rail & Ties and Constructing HMA Trail:
$ 155 /LF

Estimated Unit Costs for At-grade Xing Improvements:

Type 1 = Small Local Road	$ 35,000 /Each	$ 5,000	= Speed </= 30 MPH
Type 2 = Standard State Route	$ 50,000 /Each	$ 25,000	= Speed = 35 MPH or 40 MPH
Type 3 = Large Crossing	$ 70,000 /Each	$ 5,000	= Speed >/= 45 MPH

These costs assume full removal and replacement of pavement within 5' of the rails

UP = Unposted assumed to be 30 MPH or lower

Estimated Average Unit Cost for Adding Timber Decking & Railing on Open Timber Deck Bridges:
$ 450 /LF

Construction Subtotal	$	986,091
Contingency (30%)	$	295,827
Construction Total	$	1,281,919
Design Engineering (10%)	$	128,192
Construction Administration & Engineering (15%)	$	192,288
Segment 4 Total	$	1,602,399
Segment 5 Total, Say	**$**	**1,700,000**
Total All Segments, Say	**$**	**43,000,000**

Conceptual Project Cost Estimate for Rail-With-Trail with Stone Dust/Gravel Wearing Surface

Segment 1: Federal Street (Brunswick) to Tedford Road (Topsham)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 1	29.50	N/A	N/A	N/A	N/A	N/A	29.62	UG	41	1	Girder	Open	No	$ -
							29.94	UG	193	4	Girder	Ballasted	No	$ 965,000
							31.15	UG	40	1	Girder	Open	No	$ 200,000
							30.22	UG	860	5	Truss & Girder	Open	No	$ 3,450,000
							30.54	UG	45	1	Girder	Open	No	$ 144,000
							30.79	OH	300	1	3-Sided Rigid Frame	N/A	No	$ 4,725,000
Tedford Road	31.10	8,448	$ 6,519,840	2	UP	$ 5,000								
End Segment 1	31.10	0	$ -	N/A	N/A	N/A								
Subtotals:		8,448	$ 6,519,840			$ 5,000								$ 9,484,000

Construction Subtotal	$ 16,008,840
Contingency (30%)	$ 4,802,652
Construction Total	$ 20,811,491
Design Engineering (10%)	$ 2,081,149
Construction Administration & Engineering (15%)	$ 3,121,724
Segment 1 Total	$ 26,014,364
Segment 1 Total, Say	**$ 26,100,000**

Segment 2: Tedford Road (Topsham) to Main Street (Richmond)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 2	31.10	N/A	N/A	N/A	N/A	N/A								
Beechwood Drive	32.47	7,234	$ 3,282,246	1	UP	$ 5,000								
Cathance Road	33.06	3,115	$ 1,413,522	2	40	$ 25,000	33.71	UG	110	1	Truss	Open	No	$ 440,000
							34.31	UG	10	1	Masonry Arch	Ballasted	No	$ -
							36.34	UG	22	1	Girder	Ballasted	No	$ 110,000
Center Street	36.92	20,381	$ 9,247,788	2	35	$ 25,000								
Main Street	36.98	317	$ 143,748	1	UP	$ 5,000	37.01	UG	25	1	Girder	Ballasted	No	$ 125,000
							37.25	UG	37	1	Girder	Ballasted	No	$ 185,000
							37.28	UG	28	1	Girder	Ballasted	No	$ 140,000
Browns Point Road	38.30	6,970	$ 3,162,456	2	45	$ 5,000	40.09	UG	18	1	Girder	Open	No	$ 90,000
							40.38	UG	85	3	Girder	Open	No	$ 425,000
River Road	40.55	11,880	$ 5,390,550	2	50	$ 5,000								
High Street	44.14	18,955	$ 8,600,922	1	25	$ 5,000								
Gardiner St.	44.62	2,534	$ 1,149,984	1	UP	$ 5,000								
Pleasant Street	44.70	422	$ 191,664	1	UP	$ 5,000								
Weymouth Street	44.73	158	$ 71,874	1	UP	$ 5,000								
Main Street	44.76	158	$ 71,874	3	25	$ 5,000								
End Segment 2	44.76	0	$ -	N/A	N/A	N/A								
Subtotals:		72,125	$ 32,726,628			$ 95,000								$ 1,515,000

Construction Subtotal	$ 34,336,628
Contingency (30%)	$ 10,300,988
Construction Total	$ 44,637,616
Design Engineering (10%)	$ 4,463,762
Construction Administration & Engineering (15%)	$ 6,695,642
Segment 1 Total	$ 55,797,021
Segment 2 Total, Say	**$ 55,800,000**

Conceptual Project Cost Estimate for Rail-With-Trail with Stone Dust/Gravel Wearing Surface

Segment 3: Main Street (Richmond) to Start of Kennebec River Rail Trail (Gardiner)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 3	44.76	N/A	N/A	N/A	N/A	N/A								
Kimball Street	44.90	739	$ 335,412	1	25	$ 5,000	45.05	UG	10	1	Masonry Arch	Ballasted	No	$ -
Bridge Street	45.13	1,214	$ 551,034	1	UP	$ 5,000								
Lincoln Street	45.18	264	$ 119,790	1	25	$ 5,000								
Old Ferry Road	45.68	2,640	$ 1,197,900	1	UP	$ 5,000	45.92	UG	35	1	No Superstructure	N/A	N/A	$ 175,000
							50.18	UG	66	1	Girder	Open	No	$ 264,000
							51.42	UG	64	1	Girder	Open	No	$ 256,000
Riverside/Depot	51.86	32,630	$ 14,806,044	1	UP	$ 5,000								
Church Street	52.33	2,482	$ 1,126,026	1	UP	$ 5,000								
Mill Street	52.70	1,954	$ 886,446	1	UP	$ 5,000	53.59	UG	65	1	Girder	Open	No	$ 260,000
							55.92	UG	57	2	Girder	Open	Yes	$ 25,650
							55.94	UG	15	1	Concrete Slab	Ballasted	No	$ 75,000
Depot Street	56.02	17,530	$ 7,954,056	1	UP	$ 5,000	56.08	UG	83	2	Girder	Open	No	$ 332,000
End Segment 3	56.29	1,426	$ 646,866	N/A	N/A	N/A								
Subtotals:		60,878	$ 27,623,574			$ 40,000								$ 1,387,650

Construction Subtotal	$ 29,051,224
Contingency (30%)	$ 8,715,367
Construction Total	$ 37,766,591
Design Engineering (10%)	$ 3,776,659
Construction Administration & Engineering (15%)	$ 5,664,989
Segment 2 Total	$ 47,208,239
Segment 3 Total, Say	**$ 47,300,000**

Segment 4: Existing Section of Off-Corridor/On-Road Trail Of the Kennebec River Rail Trail (Hallowell)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 4	59.57	N/A	N/A	N/A	N/A	N/A								
Second Street	59.96	2,059	$ 1,210,810	1	UP	$ 5,000								
Chestnut Street	60.13	898	$ 527,789	1	UP	$ 5,000								
Academy Street	60.22	475	$ 279,418	1	25	$ 5,000								
Union Street	60.26	211	$ 124,186	1	UP	$ 5,000								
Central Street	60.32	317	$ 186,278	1	25	$ 5,000								
Winthrop Street	60.39	370	$ 217,325	2	25	$ 5,000	60.50	OH	68	1	Concrete Slab	N/A	No	$ 1,300,000
							60.60	UG	109	1	Girder	Open	Yes	$ 49,050
End Segment 4	60.80	2,534	$ 1,490,227	N/A	N/A	N/A								
Subtotals:		6,864	$ 4,036,032			$ 30,000								$ 1,349,050

Construction Subtotal	$ 5,415,082
Contingency (30%)	$ 1,624,525
Construction Total	$ 7,039,607
Design Engineering (10%)	$ 703,961
Construction Administration & Engineering (15%)	$ 1,055,941
Segment 3 Total	$ 8,799,508
Segment 4 Total, Say	**$ 8,800,000**

Conceptual Project Cost Estimate for Rail-With-Trail with Stone Dust/Gravel Wearing Surface

Segment 5: Memorial Bridge (Augusta) to East Side of Railroad Bridge No. 7640 (Augusta)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 5	62.34	N/A	N/A	N/A	N/A	N/A	62.42	OH	67	1	Girder	N/A	Yes	
Winthrop Street	62.59	1,320	$ 66,000	1	UP	$ 5,000								
Bridge Street	62.74	792	$ 39,600	1	UP	$ 5,000	62.84	UG	126	2	Girder	N/A	No	$ 504,000
							62.85	UG	1115	11	Girder/ Deck Truss	N/A	No	$ 4,458,000
Project End/ End Segment 5	63.00	1,373	$ 6,615	N/A	N/A	N/A								
Subtotals:		3,485	$ 112,215			$ 10,000								$ 4,962,000

Estimated Average Unit Cost for Constructing Stone Dust/Gravel Trail Adjacent to Existing Rail:

In Sections with no significant Cut or Fill	$ 50 /LF	43%	(approx. percentage of each segment)
In Modest Cut or Fill Sections	$ 275 /LF	14%	(approx. percentage of each segment)
In Fill Sections with Retaining Wall	$ 1,395 /LF	43%	(approx. percentage of each segment)

Estimated Unit Costs for At-grade Xing Improvements:

Speed </= 30 MPH	$ 5,000 /Each
Speed = 35 MPH or 40 MPH	$ 25,000 /Each
Speed >/= 45 MPH	$ 5,000 /Each

UP = Unposted assumed to be 30 MPH or lower

Estimated Average Unit Cost for Adding Timber Decking & Railing on Open Timber Deck Bridges:

$ 450 /LF

Construction Subtotal	$ 5,084,215
Contingency (30%)	$ 1,525,265
Construction Total	$ 6,609,480
Design Engineering (10%)	$ 660,948
Construction Administration & Engineering (15%)	$ 991,422
Segment 4 Total	$ 8,261,849
Segment 5 Total, Say	**$ 8,300,000**
Total All Segments, Say	**$ 146,300,000**

Conceptual Project Cost Estimate for Rail-With-Trail with HMA Pavement Wearing Surface

Segment 1: Federal Street (Brunswick) to Tedford Road (Topsham)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 1	29.50	N/A	N/A	N/A	N/A	N/A	29.62	UG	41	1	Girder	Open	No	$ -
							29.94	UG	193	4	Girder	Ballasted	No	$ 965,000
							31.15	UG	40	1	Girder	Open	No	$ 200,000
							30.22	UG	860	5	Truss & Girder	Open	No	$ 3,450,000
							30.54	UG	45	1	Girder	Open	No	$ 144,000
							30.79	OH	300	1	3-Sided Rigid Frame	N/A	No	$ 4,725,000
Tedford Road	31.10	8,448	$ 6,743,266	2	UP	$ 5,000								
End Segment 1	31.10	0	$ -	N/A	N/A	N/A								
Subtotals:		8,448	$ 6,743,266			$ 5,000								$ 9,484,000

Construction Subtotal	$ 16,232,266
Contingency (30%)	$ 4,869,680
Construction Total	$ 21,101,945
Design Engineering (10%)	$ 2,110,195
Construction Administration & Engineering (15%)	$ 3,165,292
Segment 1 Total	$ 26,377,432
Segment 1 Total, Say	**$ 26,400,000**

Segment 2: Tedford Road (Topsham) to Main Street (Richmond)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 2	31.10	N/A	N/A	N/A	N/A	N/A								
Beechwood Drive	32.47	7,234	$ 3,426,918	1	UP	$ 5,000								
Cathance Road	33.06	3,115	$ 1,475,826	2	40	$ 25,000	33.71	UG	110	1	Truss	Open	No	$ 440,000
							34.31	UG	10	1	Masonry Arch	Ballasted	No	$ -
							36.34	UG	22	1	Girder	Ballasted	No	$ 110,000
Center Street	36.92	20,381	$ 9,655,404	2	35	$ 25,000								
Main Street	36.98	317	$ 150,084	1	UP	$ 5,000	37.01	UG	25	1	Girder	Ballasted	No	$ 125,000
							37.25	UG	37	1	Girder	Ballasted	No	$ 185,000
							37.28	UG	28	1	Girder	Ballasted	No	$ 140,000
Browns Point Road	38.30	6,970	$ 3,301,848	2	45	$ 5,000	40.09	UG	18	1	Girder	Open	No	$ 90,000
							40.38	UG	85	3	Girder	Open	No	$ 425,000
River Road	40.55	11,880	$ 5,628,150	2	50	$ 5,000								
High Street	44.14	18,955	$ 8,980,026	1	25	$ 5,000								
Gardiner St.	44.62	2,534	$ 1,200,672	1	UP	$ 5,000								
Pleasant Street	44.70	422	$ 200,112	1	UP	$ 5,000								
Weymouth Street	44.73	158	$ 75,042	1	UP	$ 5,000								
Main Street	44.76	158	$ 75,042	3	25	$ 5,000								
End Segment 2	44.76	N/A	$ -	N/A	N/A	N/A								
Subtotals:		72,125	$ 34,169,124			$ 95,000								$ 1,515,000

Construction Subtotal	$ 35,779,124
Contingency (30%)	$ 10,733,737
Construction Total	$ 46,512,861
Design Engineering (10%)	$ 4,651,286
Construction Administration & Engineering (15%)	$ 6,976,929
Segment 1 Total	$ 58,141,077
Segment 2 Total, Say	**$ 58,200,000**

Conceptual Project Cost Estimate for Rail-With-Trail with HMA Pavement Wearing Surface

Segment 3: Main Street (Richmond) to Start of Kennebec River Rail Trail (Gardiner)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 3	44.76	N/A	N/A	N/A	N/A	N/A								
Kimball Street	44.90	739	$ 350,196	1	25	$ 5,000	45.05	UG	10	1	Masonry Arch	Ballasted	No	$ -
Bridge Street	45.13	1,214	$ 575,322	1	UP	$ 5,000								
Lincoln Street	45.18	264	$ 125,070	1	25	$ 5,000								
Old Ferry Road	45.68	2,640	$ 1,250,700	1	UP	$ 5,000	45.92	UG	35	1	No Superstructure	N/A	N/A	$ 175,000
							50.18	UG	66	1	Girder	Open	No	$ 264,000
							51.42	UG	64	1	Girder	Open	No	$ 256,000
Riverside/Depot	51.86	32,630	$ 15,458,652	1	UP	$ 5,000								
Church Street	52.33	2,482	$ 1,175,658	1	UP	$ 5,000								
Mill Street	52.70	1,954	$ 925,518	1	UP	$ 5,000	53.59	UG	65	1	Girder	Open	No	$ 260,000
							55.92	UG	57	2	Girder	Open	Yes	$ 25,650
							55.94	UG	15	1	Concrete Slab	Ballasted	No	$ 75,000
Depot Street	56.02	17,530	$ 8,304,648	1	UP	$ 5,000	56.08	UG	83	2	Girder	Open	No	$ 332,000
End Segment 3	56.29	1,426	$ 675,378	N/A	N/A	N/A								
Subtotals:		60,878	$ 28,841,142			$ 40,000								$ 1,387,650

Construction Subtotal	$ 30,268,792
Contingency (30%)	$ 9,080,638
Construction Total	$ 39,349,430
Design Engineering (10%)	$ 3,934,943
Construction Administration & Engineering (15%)	$ 5,902,414
Segment 2 Total	$ 49,186,787
Segment 3 Total, Say	**$ 49,200,000**

Segment 4: Main Street (Richmond) to Start of Kennebec River Rail Trail (Gardiner)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 4	59.57	N/A	N/A	N/A	N/A	N/A								
Second Street	59.96	2,059	$ 1,345,446	1	UP	$ 5,000								
Chestnut Street	60.13	898	$ 586,476	1	UP	$ 5,000								
Academy Street	60.22	475	$ 310,487	1	25	$ 5,000								
Union Street	60.26	211	$ 137,994	1	UP	$ 5,000								
Central Street	60.32	317	$ 206,992	1	25	$ 5,000								
Winthrop Street	60.39	370	$ 241,490	2	25	$ 5,000	60.50	OH	68	1	Concrete Slab	N/A	No	$ 1,300,000
							60.60	UG	109	1	Girder	Open	Yes	$ 49,050
End Segment 4	60.80	2,534	$ 1,655,933	N/A	N/A	N/A								
Subtotals:		6,864	$ 4,484,819			$ 30,000								$ 1,349,050

Construction Subtotal	$ 5,863,869
Contingency (30%)	$ 1,759,161
Construction Total	$ 7,623,030
Design Engineering (10%)	$ 762,303
Construction Administration & Engineering (15%)	$ 1,143,454
Segment 3 Total	$ 9,528,787
Segment 4 Total, Say	**$ 9,600,000**

Conceptual Project Cost Estimate for Rail-With-Trail with HMA Pavement Wearing Surface

Segment 5: Memorial Bridge (Augusta) to East Side of Railroad Bridge No. 7640 (Augusta)

Rail Corridor Segment Between Roadway At-grade Crossings		Total Segment Length	Construct Trail Adjacent to Rail Cost	Improvements at Roadway At-Grade Xings			Improvements at Bridges							
Crossing Name	MP	LF		Type	Speed	Cost	Bridge MP	Overhead or Undergrade	Total Length (ft)	Number of Spans	Bridge Type	Open or Ballasted Deck	Wide Enough for Track and Path?	Cost
Begin Segment 5	62.34	N/A	N/A	N/A	N/A	N/A	62.42	OH	67	1	Girder	N/A	Yes	
Winthrop Street	62.59	1,320	$ 92,400	1	UP	$ 5,000								
Bridge Street	62.74	792	$ 55,440	1	UP	$ 5,000	62.84	UG	126	2	Girder	N/A	No	$ 504,000
			$ -				62.85	UG	1115	11	Girder/ Deck Truss	N/A	No	$ 4,458,000
Project End/ End Segment 5	63.00	1,373	$ 9,261	N/A	N/A	N/A								
Subtotals:		3,485	$ 157,101			$ 10,000								$ 4,962,000

Estimated Average Unit Cost for Constructing HMA Trail Adjacent to Existing Rail:

In Sections with no significant Cut or Fill	$ 70	/LF	43%	(approx. percentage of each segment)
In Modest Cut or Fill Sections	$ 295	/LF	14%	(approx. percentage of each segment)
In Fill Sections with Retaining Wall	$ 1,415	/LF	43%	(approx. percentage of each segment)

Estimated Unit Costs for At-grade Xing Improvements:

Speed </= 30 MPH	$ 5,000	/Each
Speed = 35 MPH or 40 MPH	$ 25,000	/Each
Speed >/= 45 MPH	$ 5,000	/Each

UP = Unposted assumed to be 30 MPH or lower

Estimated Average Unit Cost for Adding Timber Decking & Railing on Open Timber Deck Bridges:

$ 450 /LF

Construction Subtotal	$	5,129,101
Contingency (30%)	$	1,538,730
Construction Total	$	6,667,831
Design Engineering (10%)	$	666,783
Construction Administration & Engineering (15%)	$	1,000,175
Segment 4 Total	$	8,334,789
Segment 5 Total, Say	**$**	**8,400,000**
Total All Segments, Say	**$**	**151,800,000**