

WARNING

Data included in this Report have not been thoroughly validated and some inconsistencies were detected. Therefore, the results cannot be used as is. This Report is currently being revised in order to include better quality data.

MISE EN GARDE

Les données contenues dans ce rapport n'ont pas fait l'objet d'une validation systématique et certaines incohérences y ont été décelées. Donc, les résultats ne peuvent être utilisés tels quels. Ce document est présentement en révision et intégrera, dans sa nouvelle version, des données de meilleure qualité.

Estimation of the Representative Annualized Capital and Maintenance Costs of Roads by Functional Class

ADDENDUM



Submitted to:

Transport Canada
Place de Ville, Tower "C"
330 Sparks Street
Ottawa, Ontario
K1A 0N5

March 31, 2006

March 31, 2006

**ESTIMATION OF THE REPRESENTATIVE ANNUALISED CAPITAL AND
MAINTENANCE COSTS OF ROADS BY FUNCTIONAL CLASS**

ADDENDUM

By:

Applied Research Associates, Inc.
5401 Eglinton Avenue West, Suite 204
Toronto, Ontario M9C 5K6
Telephone: (416) 621-9555 Facsimile: (416) 621-4917
Web: www.ara.com/transportation



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NEWFOUNDLAND AND LABRADOR

Region: Newfoundland
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000
Binder	Binder HMA, mm (t)	80	1500.0	\$ 57.00	\$ 85,500
Extra layer	Binder HMA, mm (t)	120	2250.0	\$ 57.00	\$ 128,250
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	200	10272.7	\$ 12.60	\$ 129,436
Subbase	Granular Subbase, mm (t)	450	16421.2	\$ 10.40	\$ 170,780
Shoulder	Surface HMA, mm (t)	40	600.0	\$ 60.00	\$ 36,000
Shoulder	Binder HMA, mm (t)	40	600.0	\$ 57.00	\$ 34,200
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 629,166

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 560
9	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.00	\$ 5,250	\$ 3,107
15	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 3,129
15	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 18,777
19	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 248
22	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 2,914
22	Mill AC, mm (t)	80	1500.0	\$ 10.00	\$ 15,000	\$ 4,163
22	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 12,488
26	Resurface with Binder HMA, mm (t)	40	750.0	\$ 57.00	\$ 42,750	\$ 9,397
31	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 1,725
36	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 921
36	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 5,523
39	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 77
39	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 1,082
43	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 612
43	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 3,673
43	Resurface with Binder HMA, mm (t)	120	2250.0	\$ 57.00	\$ 128,250	\$ 10,469
48	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 46
52	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 507
58	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 255
58	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 1,533
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				\$ -	\$ -	\$ -
Total					\$ 491,250	\$ 81,207

Region: Newfoundland
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000
Binder	Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2761.6	\$ 12.60	\$ 34,797
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.40	\$ 53,174
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 60.00	\$ 6,000
Shoulder	Binder HMA, mm (t)	40	100.0	\$ 57.00	\$ 5,700
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 181,571

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 560
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 2,581
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 16,533
19	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 248
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 2,154
26	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 1,539
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 9,232
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900	\$ 8,770
30	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 131
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 601
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 3,852
44	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 58
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 755
51	Mill AC, mm (t)	120	2100.0	\$ 10.00	\$ 21,000	\$ 1,076
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 2,151
51	Resurface with Binder HMA, mm (t)	80	1400.0	\$ 57.00	\$ 79,800	\$ 4,087
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Total					\$ 362,100	\$ 57,726

Region: Newfoundland
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000
Binder	Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2761.6	\$ 12.60	\$ 34,797
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.40	\$ 53,174
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 60.00	\$ 6,000
Shoulder	Binder HMA, mm (t)	40	100.0	\$ 57.00	\$ 5,700
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 181,571

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 560
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 2,581
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 16,533
19	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 248
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 2,154
26	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 1,539
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 9,232
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900	\$ 8,770
30	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 131
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 601
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 3,852
44	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 58
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 755
51	Mill AC, mm (t)	120	2100.0	\$ 10.00	\$ 21,000	\$ 1,076
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 2,151
51	Resurface with Binder HMA, mm (t)	80	1400.0	\$ 57.00	\$ 79,800	\$ 4,087
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				\$ -	\$ -	\$ -
Total					\$ 362,100	\$ 57,726

Region: Newfoundland
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.50
Total width of both shoulders, m	1.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	40

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	2600.0	\$ 60.00	\$ 156,000
Binder	Binder HMA, mm (t)	40	2600.0	\$ 57.00	\$ 148,200
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	1714.7	\$ 12.60	\$ 21,605
Subbase	Granular Subbase, mm (t)	150	2981.2	\$ 10.40	\$ 31,004
Shoulder	Surface HMA, mm (t)	40	0.0	\$ 60.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 57.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 356,810

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 529
9	Spot repairs - mill and patch, % Area (m2)	10	650.0	\$ 7.00	\$ 4,550	\$ 2,693
15	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 2,712
15	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 16,273
18	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 263
21	Spot repairs - mill and patch, % Area (m2)	20	1300.0	\$ 7.00	\$ 9,100	\$ 2,677
27	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 1,348
27	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 8,087
26	Resurface with Binder HMA, mm (t)	40	650.0	\$ 57.00	\$ 37,050	\$ 8,144
31	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 123
41	Spot repairs - mill and patch, % Area (m2)	10	650.0	\$ 7.00	\$ 4,550	\$ 417
43	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 531
43	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 3,184
47	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 48
47	Spot repairs - mill and patch, % Area (m2)	20	1300.0	\$ 7.00	\$ 9,100	\$ 588
52	Mill AC, mm (t)	120	1950.0	\$ 10.00	\$ 19,500	\$ 942
52	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 1,884
52	Resurface with Binder HMA, mm (t)	80	1300.0	\$ 57.00	\$ 74,100	\$ 3,580
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Total					\$ 336,450	\$ 54,025

Region: Newfoundland
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000
Binder	Binder HMA, mm (t)	80	1500.0	\$ 57.00	\$ 85,500
Extra layer	Binder HMA, mm (t)	120	2250.0	\$ 57.00	\$ 128,250
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	200	10272.7	\$ 12.60	\$ 129,436
Subbase	Granular Subbase, mm (t)	450	16421.2	\$ 10.40	\$ 170,780
Shoulder	Surface HMA, mm (t)	40	600.0	\$ 60.00	\$ 36,000
Shoulder	Binder HMA, mm (t)	40	600.0	\$ 57.00	\$ 34,200
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 649,166

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 560
9	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.00	\$ 5,250	\$ 3,107
15	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 3,129
15	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 18,777
19	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 248
22	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 2,914
22	Mill AC, mm (t)	80	1500.0	\$ 10.00	\$ 15,000	\$ 4,163
22	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 12,488
26	Resurface with Binder HMA, mm (t)	40	750.0	\$ 57.00	\$ 42,750	\$ 9,397
31	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 1,725
36	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 921
36	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 5,523
39	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 77
39	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 1,082
43	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 612
43	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 3,673
43	Resurface with Binder HMA, mm (t)	120	2250.0	\$ 57.00	\$ 128,250	\$ 10,469
48	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 46
52	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.00	\$ 10,500	\$ 507
58	Mill AC, mm (t)	40	750.0	\$ 10.00	\$ 7,500	\$ 255
58	Resurface with Surface HMA, mm (t)	40	750.0	\$ 60.00	\$ 45,000	\$ 1,533
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				\$ -	\$ -	\$ -
Total					\$ 491,250	\$ 81,207

Region: Newfoundland
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000
Binder	Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2761.6	\$ 12.60	\$ 34,797
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.40	\$ 53,174
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 60.00	\$ 6,000
Shoulder	Binder HMA, mm (t)	40	100.0	\$ 57.00	\$ 5,700
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 201,571

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 560
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 2,581
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 16,533
19	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 248
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 2,154
26	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 1,539
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 9,232
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900	\$ 8,770
30	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 131
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 601
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 3,852
44	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 58
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 755
51	Mill AC, mm (t)	120	2100.0	\$ 10.00	\$ 21,000	\$ 1,076
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 2,151
51	Resurface with Binder HMA, mm (t)	80	1400.0	\$ 57.00	\$ 79,800	\$ 4,087
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				\$ -	\$ -	\$ -
Total					\$ 362,100	\$ 57,726

Region: Newfoundland
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000
Binder	Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2761.6	\$ 12.60	\$ 34,797
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.40	\$ 53,174
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 60.00	\$ 6,000
Shoulder	Binder HMA, mm (t)	40	100.0	\$ 57.00	\$ 5,700
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 181,571

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 560
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 2,581
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 16,533
19	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 248
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 2,154
26	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 1,539
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 9,232
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 57.00	\$ 39,900	\$ 8,770
30	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 131
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 7.00	\$ 4,900	\$ 601
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 3,852
44	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 58
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 7.00	\$ 9,800	\$ 755
51	Mill AC, mm (t)	120	2100.0	\$ 10.00	\$ 21,000	\$ 1,076
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 2,151
51	Resurface with Binder HMA, mm (t)	80	1400.0	\$ 57.00	\$ 79,800	\$ 4,087
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 362,100	\$ 57,726

Region: Newfoundland
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.50
Total width of both shoulders, m	1.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	40

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000
Binder	Binder HMA, mm (t)	40	650.0	\$ 57.00	\$ 37,050
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2035.6	\$ 12.60	\$ 25,649
Subbase	Granular Subbase, mm (t)	150	3122.1	\$ 10.40	\$ 32,470
Shoulder	Surface HMA, mm (t)	40	0.0	\$ 60.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 57.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 134,169

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 529
9	Spot repairs - mill and patch, % Area (m2)	10	650.0	\$ 7.00	\$ 4,550	\$ 2,693
15	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 2,712
15	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 16,273
18	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 263
21	Spot repairs - mill and patch, % Area (m2)	20	1300.0	\$ 7.00	\$ 9,100	\$ 2,677
27	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 1,348
27	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 8,087
26	Resurface with Binder HMA, mm (t)	40	650.0	\$ 57.00	\$ 37,050	\$ 8,144
31	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 123
41	Spot repairs - mill and patch, % Area (m2)	10	650.0	\$ 7.00	\$ 4,550	\$ 417
43	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 531
43	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 3,184
47	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 48
47	Spot repairs - mill and patch, % Area (m2)	20	1300.0	\$ 7.00	\$ 9,100	\$ 588
52	Mill AC, mm (t)	120	1950.0	\$ 10.00	\$ 19,500	\$ 942
52	Resurface with Surface HMA, mm (t)	40	650.0	\$ 60.00	\$ 39,000	\$ 1,884
52	Resurface with Binder HMA, mm (t)	80	1300.0	\$ 57.00	\$ 74,100	\$ 3,580
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 336,450	\$ 54,025

Region: Newfoundland
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 65.00	\$ 45,500
Binder	Binder HMA, mm (t)	40	700.0	\$ 50.00	\$ 35,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2761.6	\$ 12.00	\$ 33,140
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.00	\$ 51,129
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 65.00	\$ 6,500
Shoulder	Binder HMA, mm (t)	40	100.0	\$ 50.00	\$ 5,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 176,269

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 2,213
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 18,186
19	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 331
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 1,846
26	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 1,539
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 10,155
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 62.70	\$ 43,890	\$ 9,647
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 516
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 4,237
44	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 77
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 647
51	Mill AC, mm (t)	120	2100.0	\$ 10.00	\$ 21,000	\$ 1,076
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 2,366
51	Resurface with Binder HMA, mm (t)	80	1400.0	\$ 62.70	\$ 87,780	\$ 4,496
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 387,670	\$ 61,650

Region: Newfoundland
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 65.00	\$ 45,500
Binder	Binder HMA, mm (t)	40	700.0	\$ 50.00	\$ 35,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2761.6	\$ 12.00	\$ 33,140
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.00	\$ 51,129
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 65.00	\$ 6,500
Shoulder	Binder HMA, mm (t)	40	100.0	\$ 50.00	\$ 5,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 176,269

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 2,213
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 18,186
19	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 331
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 1,846
26	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 1,539
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 10,155
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 62.70	\$ 43,890	\$ 9,647
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 516
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 4,237
44	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 77
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 647
51	Mill AC, mm (t)	120	2100.0	\$ 10.00	\$ 21,000	\$ 1,076
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 2,366
51	Resurface with Binder HMA, mm (t)	80	1400.0	\$ 62.70	\$ 87,780	\$ 4,496
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 387,670	\$ 61,650

Region: Newfoundland
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface			0.0	\$ -	\$ -
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	200	3778.8	\$ 12.00	\$ 45,346
Subbase			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains			0.0	\$ -	\$ -
Drainage			0.0	\$ -	\$ -
Total					\$ 45,346

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 13.86	\$ 3,465	\$ 1,935
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 13.86	\$ 3,465	\$ 1,446
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 13.86	\$ 3,465	\$ 1,080
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 13.86	\$ 3,465	\$ 807
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 13.86	\$ 3,465	\$ 603
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 13.86	\$ 3,465	\$ 451
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 13.86	\$ 3,465	\$ 337
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 30,655	\$ 8,537

Region: Newfoundland
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	3.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 65.00	\$ 45,500
Binder	Binder HMA, mm (t)	40	700.0	\$ 50.00	\$ 35,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2409.6	\$ 12.00	\$ 28,916
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.00	\$ 51,129
Shoulder	Surface HMA, mm (t)	40	300.0	\$ 65.00	\$ 19,500
Shoulder	Binder HMA, mm (t)	40	300.0	\$ 50.00	\$ 15,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 215,045

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 2,213
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 18,186
19	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 331
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 1,846
26	Mill AC, mm (t)	80	1400.0	\$ 10.00	\$ 14,000	\$ 3,077
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 10,155
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 62.70	\$ 43,890	\$ 9,647
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 516
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 4,237
44	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 77
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 647
51	Mill AC, mm (t)	80	1400.0	\$ 10.00	\$ 14,000	\$ 717
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 2,366
51	Resurface with Binder HMA, mm (t)	40	700.0	\$ 62.70	\$ 43,890	\$ 2,248
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 343,780	\$ 60,583

Region: Newfoundland
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 65.00	\$ 45,500
Binder	Binder HMA, mm (t)	40	700.0	\$ 50.00	\$ 35,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2761.6	\$ 12.00	\$ 33,140
Subbase	Granular Subbase, mm (t)	200	5112.9	\$ 10.00	\$ 51,129
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 65.00	\$ 6,500
Shoulder	Binder HMA, mm (t)	40	100.0	\$ 50.00	\$ 5,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 176,269

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 2,213
16	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 18,186
19	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 331
26	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 1,846
26	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 1,539
26	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 10,155
26	Resurface with Binder HMA, mm (t)	40	700.0	\$ 62.70	\$ 43,890	\$ 9,647
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 516
41	Mill AC, mm (t)	40	700.0	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 4,237
44	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 77
44	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 647
51	Mill AC, mm (t)	120	2100.0	\$ 10.00	\$ 21,000	\$ 1,076
51	Resurface with Surface HMA, mm (t)	40	700.0	\$ 66.00	\$ 46,200	\$ 2,366
51	Resurface with Binder HMA, mm (t)	80	1400.0	\$ 62.70	\$ 87,780	\$ 4,496
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Total					\$ 387,670	\$ 61,650

Region: Newfoundland
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.50
Total width of both shoulders, m	1.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	40

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	650.0	\$ 65.00	\$ 42,250
Binder	Binder HMA, mm (t)	40	650.0	\$ 50.00	\$ 32,500
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	2035.6	\$ 12.00	\$ 24,428
Subbase	Granular Subbase, mm (t)	150	3122.1	\$ 10.00	\$ 31,221
Shoulder	Surface HMA, mm (t)	40	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 130,398

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
9	Spot repairs - mill and patch, % Area (m2)	10	650.0	\$ 6.00	\$ 3,900	\$ 2,308
15	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 2,712
15	Resurface with Surface HMA, mm (t)	40	650.0	\$ 66.00	\$ 42,900	\$ 17,901
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
21	Spot repairs - mill and patch, % Area (m2)	20	1300.0	\$ 6.00	\$ 7,800	\$ 2,294
27	Mill AC, mm (t)	40	650.0	\$ 10.00	\$ 6,500	\$ 1,348
27	Resurface with Surface HMA, mm (t)	40	650.0	\$ 66.00	\$ 42,900	\$ 8,896
26	Resurface with Binder HMA, mm (t)	40	650.0	\$ 62.70	\$ 40,755	\$ 8,958
31	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 164
41	Spot repairs - mill and patch, % Area (m2)	10	650.0	\$ 6.00	\$ 3,900	\$ 358
43	Mill AC, mm (t)	160	2600.0	\$ 10.00	\$ 26,000	\$ 2,122
43	Resurface with Surface HMA, mm (t)	40	650.0	\$ 66.00	\$ 42,900	\$ 3,502
47	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 65
47	Spot repairs - mill and patch, % Area (m2)	20	1300.0	\$ 6.00	\$ 7,800	\$ 504
52	Mill AC, mm (t)	120	1950.0	\$ 10.00	\$ 19,500	\$ 942
52	Resurface with Surface HMA, mm (t)	40	650.0	\$ 66.00	\$ 42,900	\$ 2,073
52	Resurface with Binder HMA, mm (t)	80	1300.0	\$ 62.70	\$ 81,510	\$ 3,938
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Total					\$ 379,765	\$ 59,142

PRINCE EDWARD ISLAND

Region: Prince Edward Island
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	40

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5736.2	\$ 12.00	\$ 68,834
Subbase	Granular Subbase, mm (t)	450	14277.8	\$ 10.00	\$ 142,778
Shoulder	Surface HMA, mm (t)	40	500.0	\$ 50.00	\$ 25,000
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 366,112

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 1,550
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 19,299
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 726
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 303
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 3,775
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 142
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 1,770
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Total					\$ 284,038	\$ 53,786

Region: Prince Edward Island
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	45	832.5	\$ 50.00	\$ 41,625
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	6250.1	\$ 12.00	\$ 75,001
Subbase	Granular Subbase, mm (t)	400	12610.6	\$ 10.00	\$ 126,106
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 335,233

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 1,550
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 19,299
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 726
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 303
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 3,775
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 142
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 1,770
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Total					\$ 284,038	\$ 53,786

Region: Prince Edward Island
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	6176.2	\$ 12.00	\$ 74,114
Subbase	Granular Subbase, mm (t)	350	10933.7	\$ 10.00	\$ 109,337
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 266,701

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 1,550
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 19,299
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 726
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 303
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 3,775
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 142
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 1,770
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Total					\$ 284,038	\$ 53,786

Region: Prince Edward Island
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800
Binder	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	4237.6	\$ 12.00	\$ 50,851
Subbase	Granular Subbase, mm (t)	300	8918.7	\$ 10.00	\$ 89,187
Shoulder	Seal coat, % area (m2)	0	0.0	\$ 2.00	\$ -
Shoulder	Seal coat, % area (m2)	0	0.0	\$ 2.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 169,638

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800	\$ 9,286
16	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800	\$ 5,826
24	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800	\$ 3,655
32	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800	\$ 2,293
40	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800	\$ 1,439
48	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800	\$ 903
56	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800	\$ 566
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Total					\$ 103,600	\$ 23,968

Region: Prince Edward Island
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	40

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5736.2	\$ 12.00	\$ 68,834
Subbase	Granular Subbase, mm (t)	450	14277.8	\$ 10.00	\$ 142,778
Shoulder	Surface HMA, mm (t)	40	500.0	\$ 50.00	\$ 25,000
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 339,862

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 1,550
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 19,299
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 726
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 303
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 3,775
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 142
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 1,770
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 284,038	\$ 53,786

Region: Prince Edward Island
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	40

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5736.2	\$ 12.00	\$ 68,834
Subbase	Granular Subbase, mm (t)	400	12591.6	\$ 10.00	\$ 125,916
Shoulder	Surface HMA, mm (t)	40	500.0	\$ 50.00	\$ 25,000
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 323,000

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 1,550
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 19,299
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 726
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 303
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 3,775
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 142
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 1,770
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 284,038	\$ 53,786

Region: Prince Edward Island
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2986.2	\$ 12.00	\$ 35,834
Subbase	Granular Subbase, mm (t)	350	7808.4	\$ 10.00	\$ 78,084
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 217,168

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 1,550
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 19,299
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 726
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 303
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 3,775
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 142
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 1,770
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 284,038	\$ 53,786

Region: Prince Edward Island
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2986.2	\$ 12.00	\$ 35,834
Subbase	Granular Subbase, mm (t)	300	6661.3	\$ 10.00	\$ 66,613
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 205,697

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 1,550
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 19,299
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 726
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 9,048
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 303
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 3,775
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 7.50	\$ 2,775	\$ 142
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250	\$ 1,770
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 284,038	\$ 53,786

Region: Prince Edward Island
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100
Binder	Binder HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	6029.3	\$ 14.00	\$ 84,410
Subbase	Granular Subbase, mm (t)	400	12553.3	\$ 12.00	\$ 150,640
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 320,150

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 1,240
15	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 3,860
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 21,228
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 581
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 10.00	\$ 18,500	\$ 3,619
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 243
43	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 755
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 4,153
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 114
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 354
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 1,947
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 316,505	\$ 59,683

Region: Prince Edward Island
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100
Binder	Binder HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	6029.3	\$ 14.00	\$ 84,410
Subbase	Granular Subbase, mm (t)	300	9277.3	\$ 12.00	\$ 111,328
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 280,838

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 1,240
15	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 3,860
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 21,228
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 581
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 10.00	\$ 18,500	\$ 3,619
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 243
43	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 755
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 4,153
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 114
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 354
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 1,947
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 316,505	\$ 59,683

Region: Prince Edward Island
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface			0.0	\$ -	\$ -
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	250	4804.4	\$ 14.00	\$ 67,262
Subbase			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains			0.0	\$ -	\$ -
Drainage			0.0	\$ -	\$ -
Total					\$ 67,262

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,843
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,377
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,029
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 769
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 575
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 429
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 321
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 29,500	\$ 8,220

Region: Prince Edward Island
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer		50	925.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2986.2	\$ 14.00	\$ 41,806
Subbase	Granular Subbase, mm (t)	300	6661.3	\$ 12.00	\$ 79,936
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 236,092

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 1,240
15	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 3,860
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 21,228
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 581
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 10.00	\$ 18,500	\$ 3,619
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 243
43	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 755
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 4,153
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 114
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 354
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 1,947
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 316,505	\$ 59,683

Region: Prince Edward Island
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100
Binder	Binder HMA, mm (t)	50	925.0	\$ 50.00	\$ 46,250
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2814.7	\$ 14.00	\$ 39,406
Subbase	Granular Subbase, mm (t)	300	6483.3	\$ 12.00	\$ 77,800
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	50	500.0	\$ 20.00	\$ 10,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 221,556

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 1,240
15	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 3,860
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 21,228
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 581
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 10.00	\$ 18,500	\$ 3,619
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 243
43	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 755
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 4,153
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 114
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 354
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 1,947
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 316,505	\$ 59,683

Region: Prince Edward Island
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100
Binder	Binder HMA, mm (t)	40	740.0	\$ 50.00	\$ 37,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2784.3	\$ 14.00	\$ 38,980
Subbase	Granular Subbase, mm (t)	300	6447.4	\$ 12.00	\$ 77,369
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 50.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	50	500.0	\$ 20.00	\$ 10,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 211,449

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 1,240
15	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 3,860
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 21,228
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 581
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 10.00	\$ 18,500	\$ 3,619
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 9,953
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 243
43	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 755
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 4,153
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 6.00	\$ 2,220	\$ 114
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 10.00	\$ 9,250	\$ 354
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 55.00	\$ 50,875	\$ 1,947
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 316,505	\$ 59,683

NOVA SCOTIA

Region: Nova Scotia
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.20
Total width of both paved shoulders, m	5.60
Average AC thickness of the paved shoulders, mm	150

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 53.25	\$ 49,256
Binder	Binder HMA, mm (t)	50	925.0	\$ 48.47	\$ 44,835
Extra layer	Binder HMA, mm (t)	50	925.0	\$ 48.47	\$ 44,835
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5928.4	\$ 12.20	\$ 72,326
Subbase	Granular Subbase, mm (t)	450	15888.3	\$ 11.00	\$ 174,771
Shoulder	Surface HMA, mm (t)	50	700.0	\$ 53.25	\$ 37,275
Shoulder	Binder HMA, mm (t)	100	1400.0	\$ 48.47	\$ 67,858
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 491,156

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
6	Microsurface, % Area (m2)	100	7400	\$ 4.00	\$ 29,600	\$ 20,867
12	Resurface with Surface HMA, mm (t)	50	925	\$ 53.25	\$ 49,256	\$ 24,479
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
18	Microsurface, % Area (m2)	100	7400	\$ 4.00	\$ 29,600	\$ 10,370
24	Mill AC, mm (t)	50	925	\$ 10.00	\$ 9,250	\$ 2,285
24	Resurface with Surface HMA, mm (t)	50	925	\$ 53.25	\$ 49,256	\$ 12,165
27	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 207
30	Spot repairs - mill and patch, % Area (m2)	20	1480	\$ 7.35	\$ 10,878	\$ 1,894
30	Microsurface, % Area (m2)	100	7400	\$ 4.00	\$ 29,600	\$ 5,154
37	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 116
39	Spot repairs - mill and patch, % Area (m2)	20	1480	\$ 7.35	\$ 10,878	\$ 1,121
39	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 103
43	Mill AC, mm (t)	100	1850	\$ 10.00	\$ 18,500	\$ 1,510
43	Resurface with Binder HMA, mm (t)	60	1110	\$ 48.47	\$ 53,802	\$ 4,392
43	Resurface with Surface HMA, mm (t)	40	740	\$ 53.25	\$ 39,405	\$ 3,217
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 335,025	\$ 89,136

Region: Nova Scotia
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	6.10
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	875.0	\$ 53.25	\$ 46,594
Binder	Binder HMA, mm (t)	60	1050.0	\$ 48.47	\$ 50,894
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5994.6	\$ 12.20	\$ 73,134
Subbase	Granular Subbase, mm (t)	250	7746.8	\$ 11.00	\$ 85,215
Shoulder	Surface HMA, mm (t)	50	125.0	\$ 53.25	\$ 6,656
Shoulder	Binder HMA, mm (t)	60	150.0	\$ 48.47	\$ 7,271
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 269,763

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Route and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
5	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 15,692
10	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 1,436
15	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 3,651
15	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 19,442
18	Route and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
20	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 6,548
25	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 599
30	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 1,523
30	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 8,112
33	Route and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 146
35	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 2,732
40	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 250
45	Mill AC, mm (t)	100	1750	\$ 10.00	\$ 17,500	\$ 1,271
45	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 3,385
45	Resurface with Binder HMA, mm (t)	50	875	\$ 48.47	\$ 42,411	\$ 3,081
48	Route and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 61
50	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 1,140
55	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 104
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 315,483	\$ 70,417

Region: Nova Scotia
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	4.80
Total width of both paved shoulders, m	0.40
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	875.0	\$ 53.25	\$ 46,594
Binder	Binder HMA, mm (t)	60	1050.0	\$ 48.47	\$ 50,894
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	125	4667.1	\$ 12.20	\$ 56,939
Subbase	Granular Subbase, mm (t)	250	7240.2	\$ 11.00	\$ 79,642
Shoulder	Surface HMA, mm (t)	50	50.0	\$ 53.25	\$ 2,663
Shoulder	Binder HMA, mm (t)	60	60.0	\$ 48.47	\$ 2,908
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 239,639

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
5	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 15,692
10	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 1,436
15	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 3,651
15	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 19,442
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
20	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 6,548
25	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 599
30	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 1,523
30	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 8,112
33	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 146
35	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 2,732
40	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 250
45	Mill AC, mm (t)	100	1750	\$ 10.00	\$ 17,500	\$ 1,271
45	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 3,385
45	Resurface with Binder HMA, mm (t)	50	875	\$ 48.47	\$ 42,411	\$ 3,081
48	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 61
50	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 1,140
55	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 104
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 315,483	\$ 70,417

Region: Nova Scotia
Category: Provincial Rural Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	3.20
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	6000.0	\$ 2.00	\$ 12,000
Binder	Seal coat, % area (m2)	100	6000.0	\$ 2.00	\$ 12,000
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	125	2631.1	\$ 12.20	\$ 32,099
Subbase	Granular Subbase, mm (t)	200	4531.7	\$ 11.00	\$ 49,849
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 105,949

Pavement Preservation Action Plan

[illegible]

Region: Nova Scotia
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.20
Total width of both paved shoulders, m	5.60
Average AC thickness of the paved shoulders, mm	150

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 53.25	\$ 49,256
Binder	Binder HMA, mm (t)	50	925.0	\$ 48.47	\$ 44,835
Extra layer	Binder HMA, mm (t)	50	925.0	\$ 48.47	\$ 44,835
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5928.4	\$ 12.20	\$ 72,326
Subbase	Granular Subbase, mm (t)	450	15888.3	\$ 11.00	\$ 174,771
Shoulder	Surface HMA, mm (t)	50	700.0	\$ 53.25	\$ 37,275
Shoulder	Binder HMA, mm (t)	100	1400.0	\$ 48.47	\$ 67,858
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 511,156

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
6	Microsurface, % Area (m2)	100	7400	\$ 4.00	\$ 29,600	\$ 20,867
12	Resurface with Surface HMA, mm (t)	50	925	\$ 53.25	\$ 49,256	\$ 24,479
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
18	Microsurface, % Area (m2)	100	7400	\$ 4.00	\$ 29,600	\$ 10,370
24	Mill AC, mm (t)	50	925	\$ 10.00	\$ 9,250	\$ 2,285
24	Resurface with Surface HMA, mm (t)	50	925	\$ 53.25	\$ 49,256	\$ 12,165
27	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 207
30	Spot repairs - mill and patch, % Area (m2)	20	1480	\$ 7.35	\$ 10,878	\$ 1,894
30	Microsurface, % Area (m2)	100	7400	\$ 4.00	\$ 29,600	\$ 5,154
37	Rout and seal, m (m)	500		\$ 2.00	\$ -	\$ -
39	Spot repairs - mill and patch, % Area (m2)	20	1480	\$ 7.35	\$ 10,878	\$ 1,121
39	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 103
43	Mill AC, mm (t)	100	1850	\$ 10.00	\$ 18,500	\$ 1,510
43	Resurface with Binder HMA, mm (t)	60	1110	\$ 48.47	\$ 53,802	\$ 4,392
43	Resurface with Surface HMA, mm (t)	40	740	\$ 53.25	\$ 39,405	\$ 3,217
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				\$ -	\$ -	\$ -
Total					\$ 334,025	\$ 89,020

Region: Nova Scotia
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	6.10
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	875.0	\$ 53.25	\$ 46,594
Binder	Binder HMA, mm (t)	60	1050.0	\$ 48.47	\$ 50,894
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5994.6	\$ 12.20	\$ 73,134
Subbase	Granular Subbase, mm (t)	250	7746.8	\$ 11.00	\$ 85,215
Shoulder	Surface HMA, mm (t)	50	125.0	\$ 53.25	\$ 6,656
Shoulder	Binder HMA, mm (t)	60	150.0	\$ 48.47	\$ 7,271
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 289,763

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
5	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 15,692
10	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 1,436
15	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 3,651
15	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 19,442
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
20	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 6,548
25	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 599
30	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 1,523
30	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 8,112
33	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 146
35	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 2,732
40	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 250
45	Mill AC, mm (t)	100	1750	\$ 10.00	\$ 17,500	\$ 1,271
45	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 3,385
45	Resurface with Binder HMA, mm (t)	50	875	\$ 48.47	\$ 42,411	\$ 3,081
48	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 61
50	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 1,140
55	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 104
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 315,483	\$ 70,417

Region: Nova Scotia
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	4.80
Total width of both paved shoulders, m	0.40
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	875.0	\$ 53.25	\$ 46,594
Binder	Binder HMA, mm (t)	60	1050.0	\$ 48.47	\$ 50,894
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	125	4667.1	\$ 12.20	\$ 56,939
Subbase	Granular Subbase, mm (t)	250	7240.2	\$ 11.00	\$ 79,642
Shoulder	Surface HMA, mm (t)	50	50.0	\$ 53.25	\$ 2,663
Shoulder	Binder HMA, mm (t)	60	60.0	\$ 48.47	\$ 2,908
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 259,639

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
5	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 15,692
10	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 1,436
15	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 3,651
15	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 19,442
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
20	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 6,548
25	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 599
30	Mill AC, mm (t)	50	875	\$ 10.00	\$ 8,750	\$ 1,523
30	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 8,112
33	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 146
35	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 2,732
40	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 250
45	Mill AC, mm (t)	100	1750	\$ 10.00	\$ 17,500	\$ 1,271
45	Resurface with Surface HMA, mm (t)	50	875	\$ 53.25	\$ 46,594	\$ 3,385
45	Resurface with Binder HMA, mm (t)	50	875	\$ 48.47	\$ 42,411	\$ 3,081
48	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 61
50	Seal coat, % area (m2)	100	7000	\$ 3.00	\$ 21,000	\$ 1,140
55	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 7.35	\$ 2,573	\$ 104
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 315,483	\$ 70,417

Region: Nova Scotia
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	3.20
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	60	900.0	\$ 53.25	\$ 47,925
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	125	3173.9	\$ 12.20	\$ 38,721
Subbase	Granular Subbase, mm (t)	200	4646.4	\$ 11.00	\$ 51,110
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 53.25	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	50	500.0	\$ 20.00	\$ 10,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 147,756

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
5	Seal coat, % area (m2)	100	6000	\$ 3.00	\$ 18,000	\$ 13,451
10	Spot repairs - mill and patch, % Area (m2)	5	300	\$ 7.35	\$ 2,205	\$ 1,231
15	Mill AC, mm (t)	40	600	\$ 10.00	\$ 6,000	\$ 2,504
15	Resurface with Surface HMA, mm (t)	40	600	\$ 53.25	\$ 31,950	\$ 13,332
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
20	Seal coat, % area (m2)	100	6000	\$ 3.00	\$ 18,000	\$ 5,612
25	Spot repairs - mill and patch, % Area (m2)	5	300	\$ 7.35	\$ 2,205	\$ 514
30	Mill AC, mm (t)	40	600	\$ 10.00	\$ 6,000	\$ 1,045
30	Resurface with Surface HMA, mm (t)	40	600	\$ 53.25	\$ 31,950	\$ 5,563
33	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 146
35	Seal coat, % area (m2)	100	6000	\$ 3.00	\$ 18,000	\$ 2,342
40	Spot repairs - mill and patch, % Area (m2)	5	300	\$ 7.35	\$ 2,205	\$ 214
45	Mill AC, mm (t)	60	900	\$ 10.00	\$ 9,000	\$ 654
45	Resurface with Surface HMA, mm (t)	60	900	\$ 53.25	\$ 47,925	\$ 3,482
48	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 61
50	Seal coat, % area (m2)	100	6000	\$ 3.00	\$ 18,000	\$ 977
55	Spot repairs - mill and patch, % Area (m2)	5	300	\$ 7.35	\$ 2,205	\$ 89
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				\$ -	\$ -	\$ -
Total					\$ 217,645	\$ 52,457

Region: Nova Scotia
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.25
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	4.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	725.0	\$ 110.00	\$ 79,750
Binder	Binder HMA, mm (t)	80	1450.0	\$ 60.00	\$ 87,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5724.2	\$ 15.00	\$ 85,863
Subbase	Granular Subbase, mm (t)	400	13000.9	\$ 12.00	\$ 156,010
Shoulder	Surface HMA, mm (t)	40	400.0	\$ 110.00	\$ 44,000
Shoulder	Binder HMA, mm (t)	40	400.0	\$ 60.00	\$ 24,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 476,623

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 822
11	Spot repairs - mill and patch, % Area (m2)	5	363	\$ 6.00	\$ 2,175	\$ 1,146
16	Mill AC, mm (t)	40	725	\$ 10.00	\$ 7,250	\$ 2,854
16	Resurface with Surface HMA, mm (t)	40	725	\$ 110.00	\$ 79,750	\$ 31,393
19	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 364
26	Mill AC, mm (t)	100	1813	\$ 10.00	\$ 18,125	\$ 3,984
26	Resurface with Binder HMA, mm (t)	80	1450	\$ 60.00	\$ 87,000	\$ 19,123
26	Resurface with Surface HMA, mm (t)	80	1450	\$ 110.00	\$ 159,500	\$ 35,060
30	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 192
36	Spot repairs - mill and patch, % Area (m2)	5	363	\$ 6.00	\$ 2,175	\$ 267
41	Mill AC, mm (t)	40	725	\$ 10.00	\$ 7,250	\$ 665
41	Resurface with Surface HMA, mm (t)	40	725	\$ 110.00	\$ 79,750	\$ 7,315
44	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 85
56	Mill AC, mm (t)	120	2175	\$ 10.00	\$ 21,750	\$ 832
56	Resurface with Surface HMA, mm (t)	40	725	\$ 110.00	\$ 79,750	\$ 3,052
56	Mill AC, mm (t)	80	1450	\$ 10.00	\$ 14,500	\$ 555
56	Add to Granular Base, mm (t)	50	906	\$ 15.00	\$ 13,594	\$ 520
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				\$ -	\$ -	\$ -
Total					\$ 576,969	\$ 108,228

Region: Nova Scotia
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	2.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 110.00	\$ 77,000
Binder	Binder HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	4962.3	\$ 15.00	\$ 74,434
Subbase	Granular Subbase, mm (t)	300	8827.0	\$ 12.00	\$ 105,924
Shoulder	Surface HMA, mm (t)	40	200.0	\$ 110.00	\$ 22,000
Shoulder	Binder HMA, mm (t)	10	50.0	\$ 60.00	\$ 3,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 324,358

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 822
11	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 6.00	\$ 2,100	\$ 1,106
16	Mill AC, mm (t)	40	700	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 30,311
19	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 364
26	Mill AC, mm (t)	100	1750	\$ 10.00	\$ 17,500	\$ 3,847
26	Resurface with Binder HMA, mm (t)	80	1400	\$ 60.00	\$ 84,000	\$ 18,464
26	Resurface with Surface HMA, mm (t)	80	1400	\$ 110.00	\$ 154,000	\$ 33,851
30	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 192
36	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 6.00	\$ 2,100	\$ 258
41	Mill AC, mm (t)	40	700	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 7,062
44	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 85
56	Mill AC, mm (t)	120	2100	\$ 10.00	\$ 21,000	\$ 804
56	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 2,947
56	Mill AC, mm (t)	80	1400	\$ 10.00	\$ 14,000	\$ 536
56	Add to Granular Base, mm (t)	50	875	\$ 15.00	\$ 13,125	\$ 502
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				\$ -	\$ -	\$ -
Total					\$ 557,225	\$ 104,547

Region: Nova Scotia
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface			0.0	\$ -	\$ -
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	250	4804.4	\$ 15.00	\$ 72,066
Subbase			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains			0.0	\$ -	\$ -
Drainage			0.0	\$ -	\$ -
Total					\$ 72,066

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 15.00	\$ 3,750	\$ 2,094
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250.0	\$ 15.00	\$ 3,750	\$ 1,565
18	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250.0	\$ 15.00	\$ 3,750	\$ 1,169
20	Granular Roadway Ditching, km (km)	1	1.0	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250.0	\$ 15.00	\$ 3,750	\$ 874
28	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250.0	\$ 15.00	\$ 3,750	\$ 653
30	Granular Roadway Ditching, km (km)	1	1.0	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250.0	\$ 15.00	\$ 3,750	\$ 488
38	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250.0	\$ 15.00	\$ 3,750	\$ 365
40	Granular Roadway Ditching, km (km)	1	1.0	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1.0	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 32,650	\$ 9,085

Region: Nova Scotia
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.25
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	4.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	725.0	\$ 110.00	\$ 79,750
Binder	Binder HMA, mm (t)	80	1450.0	\$ 60.00	\$ 87,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5724.2	\$ 15.00	\$ 85,863
Subbase	Granular Subbase, mm (t)	400	13000.9	\$ 12.00	\$ 156,010
Shoulder	Surface HMA, mm (t)	40	400.0	\$ 110.00	\$ 44,000
Shoulder	Binder HMA, mm (t)	40	400.0	\$ 60.00	\$ 24,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 496,623

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 822
11	Spot repairs - mill and patch, % Area (m2)	5	363	\$ 6.00	\$ 2,175	\$ 1,146
16	Mill AC, mm (t)	40	725	\$ 10.00	\$ 7,250	\$ 2,854
16	Resurface with Surface HMA, mm (t)	40	725	\$ 110.00	\$ 79,750	\$ 31,393
19	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 364
26	Mill AC, mm (t)	100	1813	\$ 10.00	\$ 18,125	\$ 3,984
26	Resurface with Binder HMA, mm (t)	80	1450	\$ 60.00	\$ 87,000	\$ 19,123
26	Resurface with Surface HMA, mm (t)	80	1450	\$ 110.00	\$ 159,500	\$ 35,060
30	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 192
36	Spot repairs - mill and patch, % Area (m2)	5	363	\$ 6.00	\$ 2,175	\$ 267
41	Mill AC, mm (t)	40	725	\$ 10.00	\$ 7,250	\$ 665
41	Resurface with Surface HMA, mm (t)	40	725	\$ 110.00	\$ 79,750	\$ 7,315
44	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 85
56	Mill AC, mm (t)	120	2175	\$ 10.00	\$ 21,750	\$ 832
56	Resurface with Surface HMA, mm (t)	40	725	\$ 110.00	\$ 79,750	\$ 3,052
56	Mill AC, mm (t)	80	1450	\$ 10.00	\$ 14,500	\$ 555
56	Add to Granular Base, mm (t)	50	906	\$ 15.00	\$ 13,594	\$ 520
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Total					\$ 576,969	\$ 108,228

Region: Nova Scotia
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 110.00	\$ 77,000
Binder	Binder HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2652.3	\$ 15.00	\$ 39,784
Subbase	Granular Subbase, mm (t)	300	6152.3	\$ 12.00	\$ 73,828
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 110.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 252,612

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 822
11	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 6.00	\$ 2,100	\$ 1,106
16	Mill AC, mm (t)	40	700	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 30,311
19	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 364
26	Mill AC, mm (t)	100	1750	\$ 10.00	\$ 17,500	\$ 3,847
26	Resurface with Binder HMA, mm (t)	80	1400	\$ 60.00	\$ 84,000	\$ 18,464
26	Resurface with Surface HMA, mm (t)	80	1400	\$ 110.00	\$ 154,000	\$ 33,851
30	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 192
36	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 6.00	\$ 2,100	\$ 258
41	Mill AC, mm (t)	40	700	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 7,062
44	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 85
56	Mill AC, mm (t)	120	2100	\$ 10.00	\$ 21,000	\$ 804
56	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 2,947
56	Mill AC, mm (t)	80	1400	\$ 10.00	\$ 14,000	\$ 536
56	Add to Granular Base, mm (t)	50	875	\$ 15.00	\$ 13,125	\$ 502
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Total					\$ 557,225	\$ 104,547

Region: Nova Scotia
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	700.0	\$ 110.00	\$ 77,000
Binder	Binder HMA, mm (t)	40	700.0	\$ 60.00	\$ 42,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2652.3	\$ 15.00	\$ 39,784
Subbase	Granular Subbase, mm (t)	200	4097.7	\$ 12.00	\$ 49,173
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 110.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 227,957

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 822
11	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 6.00	\$ 2,100	\$ 1,106
16	Mill AC, mm (t)	40	700	\$ 10.00	\$ 7,000	\$ 2,756
16	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 30,311
19	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 364
26	Mill AC, mm (t)	100	1750	\$ 10.00	\$ 17,500	\$ 3,847
26	Resurface with Binder HMA, mm (t)	80	1400	\$ 60.00	\$ 84,000	\$ 18,464
26	Resurface with Surface HMA, mm (t)	80	1400	\$ 110.00	\$ 154,000	\$ 33,851
30	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 192
36	Spot repairs - mill and patch, % Area (m2)	5	350	\$ 6.00	\$ 2,100	\$ 258
41	Mill AC, mm (t)	40	700	\$ 10.00	\$ 7,000	\$ 642
41	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 7,062
44	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 85
56	Mill AC, mm (t)	120	2100	\$ 10.00	\$ 21,000	\$ 804
56	Resurface with Surface HMA, mm (t)	40	700	\$ 110.00	\$ 77,000	\$ 2,947
56	Mill AC, mm (t)	80	1400	\$ 10.00	\$ 14,000	\$ 536
56	Add to Granular Base, mm (t)	50	875	\$ 15.00	\$ 13,125	\$ 502
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Total					\$ 557,225	\$ 104,547

NEW BRUNSWICK

Region: New Brunswick
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850.0	\$ 60.00	\$ 111,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	200	7348.6	\$ 10.60	\$ 77,896
Subbase	Granular Subbase, mm (t)	400	12818.9	\$ 8.60	\$ 110,242
Shoulder	Surface HMA, mm (t)	50	625.0	\$ 65.00	\$ 40,625
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 399,888

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,964
19	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 2,302
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 718
50	Mill AC, mm (t)	80	1480.0	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 378
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Total					\$ 272,250	\$ 43,731

Region: New Brunswick
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850.0	\$ 60.00	\$ 111,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5664.4	\$ 10.60	\$ 60,042
Subbase	Granular Subbase, mm (t)	250	8067.8	\$ 8.60	\$ 69,383
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 65.00	\$ 48,750
Shoulder	Binder HMA, mm (t)	50	750.0	\$ 60.00	\$ 45,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 394,300

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,964
19	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 2,302
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 718
50	Mill AC, mm (t)	80	1480.0	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 378
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Total					\$ 272,250	\$ 43,731

Region: New Brunswick
Category: Provincial Rural Collector
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	1.60
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	3734.8	\$ 10.60	\$ 39,589
Subbase	Granular Subbase, mm (t)	200	5986.9	\$ 8.60	\$ 51,488
Shoulder	Surface HMA, mm (t)	50	200.0	\$ 65.00	\$ 13,000
Shoulder	Binder HMA, mm (t)	50	200.0	\$ 60.00	\$ 12,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 231,702

Pavement Preservation Action Plan

[illegible]

Region: New Brunswick
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100
Binder	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	200	5714.8	\$ 10.60	\$ 60,577
Subbase	Granular Subbase, mm (t)	300	9058.6	\$ 8.60	\$ 77,904
Shoulder	Seal coat, % area (m2)	100	0.0	\$ 1.50	\$ -
Shoulder	Seal coat, % area (m2)	100	0.0	\$ 1.50	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 160,681

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
10	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,198
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
20	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 3,461
25	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 14,009
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
35	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 1,444
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
49	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 58
55	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 450
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Total					\$ 168,650	\$ 31,419

Region: New Brunswick
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100
Binder	Binder HMA, mm (t)	85	1572.5	\$ 60.00	\$ 94,350
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5241.3	\$ 10.60	\$ 55,558
Subbase	Granular Subbase, mm (t)	225	7185.1	\$ 8.60	\$ 61,792
Shoulder	Surface HMA, mm (t)	40	600.0	\$ 65.00	\$ 39,000
Shoulder	Binder HMA, mm (t)	60	900.0	\$ 60.00	\$ 54,000
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 372,800

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,964
19	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 2,302
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 718
50	Mill AC, mm (t)	80	1480.0	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 378
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Total					\$ 272,250	\$ 43,731

Region: New Brunswick
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	45	832.5	\$ 65.00	\$ 54,113
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5700.1	\$ 10.60	\$ 60,421
Subbase	Granular Subbase, mm (t)	400	12610.6	\$ 8.60	\$ 108,451
Shoulder	Surface HMA, mm (t)	45	562.5	\$ 65.00	\$ 36,563
Shoulder	Binder HMA, mm (t)	5	62.5	\$ 60.00	\$ 3,750
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 394,298

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 1,198
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 562
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 10,857
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 11,762
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 234
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,908
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 110
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 2,301
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				\$ -	\$ -	\$ -
Total					\$ 346,272	\$ 65,146

Region: New Brunswick
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	45	832.5	\$ 65.00	\$ 54,113
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	3005.1	\$ 10.60	\$ 31,854
Subbase	Granular Subbase, mm (t)	350	7828.9	\$ 8.60	\$ 67,328
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 284,295

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 1,198
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 562
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 10,857
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 11,762
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 234
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,908
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 110
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 2,301
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				\$ -	\$ -	\$ -
Total					\$ 346,272	\$ 65,146

Region: New Brunswick
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	45	832.5	\$ 65.00	\$ 54,113
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	3005.1	\$ 10.60	\$ 31,854
Subbase	Granular Subbase, mm (t)	300	6679.0	\$ 8.60	\$ 57,439
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 274,406

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 705
10	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 1,198
15	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 2,895
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
18	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 350
23	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 562
23	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 262
28	Mill AC, mm (t)	100	1850.0	\$ 7.50	\$ 13,875	\$ 2,714
28	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 10,857
28	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 11,762
34	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 138
38	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 109
38	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 234
43	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 566
43	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,908
46	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 69
51	Spot repairs - mill and patch, % Area (m2)	5	370.0	\$ 5.80	\$ 2,146	\$ 110
51	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 51
56	Mill AC, mm (t)	50	925.0	\$ 7.50	\$ 6,938	\$ 266
56	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 2,301
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 346,272	\$ 65,146

Region: New Brunswick
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	85	1572.5	\$ 66.00	\$ 103,785
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	6363.3	\$ 11.66	\$ 74,197
Subbase	Granular Subbase, mm (t)	225	7185.1	\$ 9.46	\$ 67,971
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 71.50	\$ 7,150
Shoulder	Binder HMA, mm (t)	50	125.0	\$ 66.00	\$ 8,250
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 314,263

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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				\$ -	\$ -	\$ -
Total					\$ 247,869	\$ 44,350

Region: New Brunswick
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5454.7	\$ 11.66	\$ 63,602
Subbase	Granular Subbase, mm (t)	200	6051.7	\$ 9.46	\$ 57,249
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 234,811

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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				\$ -	\$ -	\$ -
Total					\$ 247,869	\$ 44,350

Region: New Brunswick
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface			0.0	\$ -	\$ -
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	300	5862.4	\$ 11.66	\$ 68,355
Subbase			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains			0.0	\$ -	\$ -
Drainage			0.0	\$ -	\$ -
Total					\$ 68,355

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 11.66	\$ 2,915	\$ 1,628
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 11.66	\$ 2,915	\$ 1,216
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 11.66	\$ 2,915	\$ 909
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 11.66	\$ 2,915	\$ 679
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 11.66	\$ 2,915	\$ 508
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 11.66	\$ 2,915	\$ 379
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 11.66	\$ 2,915	\$ 283
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
Total					\$ 26,805	\$ 7,480

Region: New Brunswick
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	85	1572.5	\$ 66.00	\$ 103,785
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2931.3	\$ 11.66	\$ 34,179
Subbase	Granular Subbase, mm (t)	225	4953.6	\$ 9.46	\$ 46,861
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 259,735

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 270,762	\$ 47,823

Region: New Brunswick
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2814.7	\$ 11.66	\$ 32,819
Subbase	Granular Subbase, mm (t)	200	4331.1	\$ 9.46	\$ 40,972
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 209,752

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 270,762	\$ 47,823

Region: New Brunswick
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2814.7	\$ 11.66	\$ 32,819
Subbase	Granular Subbase, mm (t)	150	3297.6	\$ 9.46	\$ 31,195
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 199,974

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
				\$ -	\$ -	\$ -
Total					\$ 270,762	\$ 47,823

QUÉBEC – CHAMPLAIN PLAIN

Region: Quebec, Champlain Plain
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	180

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688
Binder	Binder HMA, mm (t)	60	1125	\$ 70.00	\$ 78,750
Extra layer	Binder HMA, mm (t)	70	1313	\$ 70.00	\$ 91,875
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5490	\$ 15.00	\$ 82,345
Subbase	Granular Subbase, mm (t)	600	21894	\$ 12.50	\$ 273,680
Shoulder	Surface HMA, mm (t)	50	875	\$ 85.00	\$ 74,375
Shoulder	Binder HMA, mm (t)	130	2275	\$ 70.00	\$ 159,250
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 839,962

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	150

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688
Binder	Binder HMA, mm (t)	60	1125	\$ 70.00	\$ 78,750
Extra layer	Binder HMA, mm (t)	60	1125	\$ 70.00	\$ 78,750
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5756	\$ 15.00	\$ 86,334
Subbase	Granular Subbase, mm (t)	600	21837	\$ 12.50	\$ 272,965
Shoulder	Surface HMA, mm (t)	50	875	\$ 85.00	\$ 74,375
Shoulder	Binder HMA, mm (t)	100	1750	\$ 70.00	\$ 122,500
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 793,361

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	40	750	\$ 70.00	\$ 52,500
Extra layer	Binder HMA, mm (t)	40	750	\$ 70.00	\$ 52,500
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5257	\$ 15.00	\$ 78,851
Subbase	Granular Subbase, mm (t)	450	15744	\$ 12.50	\$ 196,794
Shoulder	Surface HMA, mm (t)	40	700	\$ 85.00	\$ 59,500
Shoulder	Binder HMA, mm (t)	80	1400	\$ 70.00	\$ 98,000
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 601,894

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5158	\$ 15.00	\$ 77,366
Subbase	Granular Subbase, mm (t)	450	15621	\$ 12.50	\$ 195,261
Shoulder	Surface HMA, mm (t)	40	700	\$ 85.00	\$ 59,500
Shoulder	Binder HMA, mm (t)	50	875	\$ 70.00	\$ 61,250
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 522,752

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688
Binder	Binder HMA, mm (t)	60	1125	\$ 70.00	\$ 78,750
Extra layer	Binder HMA, mm (t)	70	1313	\$ 70.00	\$ 91,875
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	6568	\$ 15.00	\$ 98,515
Subbase	Granular Subbase, mm (t)	600	21894	\$ 12.50	\$ 273,680
Shoulder	Surface HMA, mm (t)	50	875	\$ 85.00	\$ 74,375
Shoulder	Binder HMA, mm (t)	60	1050	\$ 70.00	\$ 73,500
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 790,382

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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				\$ -	\$ -	\$ -
Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688
Binder	Binder HMA, mm (t)	60	1125	\$ 70.00	\$ 78,750
Extra layer	Binder HMA, mm (t)	60	1125	\$ 70.00	\$ 78,750
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	6372	\$ 15.00	\$ 95,574
Subbase	Granular Subbase, mm (t)	600	21837	\$ 12.50	\$ 272,965
Shoulder	Surface HMA, mm (t)	50	875	\$ 85.00	\$ 74,375
Shoulder	Binder HMA, mm (t)	60	1050	\$ 70.00	\$ 73,500
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 773,601

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	40	750	\$ 70.00	\$ 52,500
Extra layer	Binder HMA, mm (t)	40	750	\$ 70.00	\$ 52,500
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5719	\$ 15.00	\$ 85,781
Subbase	Granular Subbase, mm (t)	450	15744	\$ 12.50	\$ 196,794
Shoulder	Surface HMA, mm (t)	40	700	\$ 85.00	\$ 59,500
Shoulder	Binder HMA, mm (t)	50	875	\$ 70.00	\$ 61,250
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 592,074

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5158	\$ 15.00	\$ 77,366
Subbase	Granular Subbase, mm (t)	450	15621	\$ 12.50	\$ 195,261
Shoulder	Surface HMA, mm (t)	40	700	\$ 85.00	\$ 59,500
Shoulder	Binder HMA, mm (t)	50	875	\$ 70.00	\$ 61,250
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 542,752

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 1,561
22	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 22,114
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 6.00	\$ 11,250	\$ 1,381
36	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 8,055
36	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 9,781
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 6.00	\$ 5,625	\$ 343
48	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 4,861
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Total					\$ 363,938	\$ 56,831

Region: Quebec, Champlain Plain
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	0.50
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	6445	\$ 15.00	\$ 96,671
Subbase	Granular Subbase, mm (t)	450	15621	\$ 12.50	\$ 195,261
Shoulder	Surface HMA, mm (t)	40	50	\$ 85.00	\$ 4,250
Shoulder	Binder HMA, mm (t)	50	63	\$ 70.00	\$ 4,375
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 429,932

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 2,168
18	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 30,710
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 6.60	\$ 12,375	\$ 1,918
32	Resurface with Binder HMA, mm (t)	50	938	\$ 77.00	\$ 72,188	\$ 11,186
32	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 13,583
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 377
48	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 5,347
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Total					\$ 396,656	\$ 75,934

Region: Quebec, Champlain Plain
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	6544	\$ 15.00	\$ 98,156
Subbase	Granular Subbase, mm (t)	300	10121	\$ 12.50	\$ 126,515
Shoulder	Surface HMA, mm (t)	0	0	\$ 85.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 70.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 354,045

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 2,168
18	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 30,710
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 6.60	\$ 12,375	\$ 1,918
32	Resurface with Binder HMA, mm (t)	50	938	\$ 77.00	\$ 72,188	\$ 11,186
32	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 13,583
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 377
48	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 5,347
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Total					\$ 396,656	\$ 75,934

Region: Quebec, Champlain Plain
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5862	\$ 15.00	\$ 87,935
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 87,935

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 16.50	\$ 4,125	\$ 2,303
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 16.50	\$ 4,125	\$ 1,721
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 16.50	\$ 4,125	\$ 1,286
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 16.50	\$ 4,125	\$ 961
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 16.50	\$ 4,125	\$ 718
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 16.50	\$ 4,125	\$ 537
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 16.50	\$ 4,125	\$ 401
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 35,275	\$ 9,806

Region: Quebec, Champlain Plain
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625
Extra layer	Binder HMA, mm (t)	60	1125	\$ 70.00	\$ 78,750
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3057	\$ 15.00	\$ 45,860
Subbase	Granular Subbase, mm (t)	450	10347	\$ 12.50	\$ 129,334
Shoulder	Surface HMA, mm (t)	0	0	\$ 85.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 70.00	\$ -
Subgrade	Subgrade Improvement, % area (m2)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 403,319

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 2,168
18	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 30,710
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 6.60	\$ 12,375	\$ 1,918
32	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 10,169
32	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 12,348
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 377
48	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 5,347
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				\$ -	\$ -	\$ -
Total					\$ 382,125	\$ 73,683

Region: Quebec, Champlain Plain
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2848	\$ 15.00	\$ 42,716
Subbase	Granular Subbase, mm (t)	300	6557	\$ 12.50	\$ 81,968
Shoulder	Surface HMA, mm (t)	0	0	\$ 85.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 70.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 274,058

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 2,168
18	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 30,710
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 6.60	\$ 12,375	\$ 1,918
32	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 10,169
32	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 12,348
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 377
48	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 5,347
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				\$ -	\$ -	\$ -
Total					\$ 382,125	\$ 73,683

Region: Quebec, Champlain Plain
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 85.00	\$ 63,750
Binder	Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5934	\$ 15.00	\$ 89,013
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	0	0	\$ 85.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 70.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 238,388

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 2,168
18	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 30,710
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 6.60	\$ 12,375	\$ 1,918
32	Resurface with Binder HMA, mm (t)	50	938	\$ 70.00	\$ 65,625	\$ 10,169
32	Resurface with Surface HMA, mm (t)	50	938	\$ 85.00	\$ 79,688	\$ 12,348
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 6.60	\$ 6,188	\$ 377
48	Resurface with Surface HMA, mm (t)	50	938	\$ 93.50	\$ 87,656	\$ 5,347
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Total					\$ 382,125	\$ 73,683

QUÉBEC - NORD

Region: Quebec, Nord
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	180

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313
Binder	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
Extra layer	Binder HMA, mm (t)	70	1313	\$ 65.00	\$ 85,313
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5490	\$ 12.00	\$ 65,876
Subbase	Granular Subbase, mm (t)	600	21894	\$ 10.00	\$ 218,944
Shoulder	Surface HMA, mm (t)	50	875	\$ 75.00	\$ 65,625
Shoulder	Binder HMA, mm (t)	130	2275	\$ 65.00	\$ 147,875
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 727,069

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	150

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313
Binder	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
Extra layer	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5756	\$ 12.00	\$ 69,067
Subbase	Granular Subbase, mm (t)	600	21837	\$ 10.00	\$ 218,372
Shoulder	Surface HMA, mm (t)	50	875	\$ 75.00	\$ 65,625
Shoulder	Binder HMA, mm (t)	100	1750	\$ 65.00	\$ 113,750
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 683,376

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	40	750	\$ 65.00	\$ 48,750
Extra layer	Binder HMA, mm (t)	40	750	\$ 65.00	\$ 48,750
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5257	\$ 12.00	\$ 63,080
Subbase	Granular Subbase, mm (t)	450	15744	\$ 10.00	\$ 157,435
Shoulder	Surface HMA, mm (t)	40	700	\$ 75.00	\$ 52,500
Shoulder	Binder HMA, mm (t)	80	1400	\$ 65.00	\$ 91,000
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 517,765

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5158	\$ 12.00	\$ 61,892
Subbase	Granular Subbase, mm (t)	450	15621	\$ 10.00	\$ 156,209
Shoulder	Surface HMA, mm (t)	40	700	\$ 75.00	\$ 52,500
Shoulder	Binder HMA, mm (t)	50	875	\$ 65.00	\$ 56,875
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 444,664

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313
Binder	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
Extra layer	Binder HMA, mm (t)	70	1313	\$ 65.00	\$ 85,313
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	6568	\$ 12.00	\$ 78,812
Subbase	Granular Subbase, mm (t)	600	21894	\$ 10.00	\$ 218,944
Shoulder	Surface HMA, mm (t)	50	875	\$ 75.00	\$ 65,625
Shoulder	Binder HMA, mm (t)	60	1050	\$ 65.00	\$ 68,250
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 680,380

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313
Binder	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
Extra layer	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	6372	\$ 12.00	\$ 76,459
Subbase	Granular Subbase, mm (t)	600	21837	\$ 10.00	\$ 218,372
Shoulder	Surface HMA, mm (t)	50	875	\$ 75.00	\$ 65,625
Shoulder	Binder HMA, mm (t)	60	1050	\$ 65.00	\$ 68,250
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 665,268

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	40	750	\$ 65.00	\$ 48,750
Extra layer	Binder HMA, mm (t)	40	750	\$ 65.00	\$ 48,750
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5719	\$ 12.00	\$ 68,624
Subbase	Granular Subbase, mm (t)	450	15744	\$ 10.00	\$ 157,435
Shoulder	Surface HMA, mm (t)	40	700	\$ 75.00	\$ 52,500
Shoulder	Binder HMA, mm (t)	50	875	\$ 65.00	\$ 56,875
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 509,184

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5158	\$ 12.00	\$ 61,892
Subbase	Granular Subbase, mm (t)	450	15621	\$ 10.00	\$ 156,209
Shoulder	Surface HMA, mm (t)	40	700	\$ 75.00	\$ 52,500
Shoulder	Binder HMA, mm (t)	50	875	\$ 65.00	\$ 56,875
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 464,664

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
14	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,312
14	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 829
22	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,122
22	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 19,512
28	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 245
28	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 1,907
36	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 2,762
36	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 7,480
36	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 8,630
44	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 96
52	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 471
52	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 91
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,289
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Total					\$ 353,625	\$ 55,216

Region: Quebec, Nord
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	0.50
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Extra layer	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	7578	\$ 12.00	\$ 90,940
Subbase	Granular Subbase, mm (t)	450	15865	\$ 10.00	\$ 158,652
Shoulder	Surface HMA, mm (t)	40	50	\$ 75.00	\$ 3,750
Shoulder	Binder HMA, mm (t)	50	63	\$ 65.00	\$ 4,063
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 447,717

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,941
18	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 27,097
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 3,487
32	Resurface with Binder HMA, mm (t)	50	938	\$ 71.50	\$ 67,031	\$ 10,387
32	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 11,985
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 4,718
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Total					\$ 380,813	\$ 72,947

Region: Quebec, Nord
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	6544	\$ 12.00	\$ 78,524
Subbase	Granular Subbase, mm (t)	300	10121	\$ 10.00	\$ 101,212
Shoulder	Surface HMA, mm (t)	0	0	\$ 75.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 65.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 296,924

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,941
18	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 27,097
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 3,487
32	Resurface with Binder HMA, mm (t)	50	938	\$ 71.50	\$ 67,031	\$ 10,387
32	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 11,985
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 4,718
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				\$ -	\$ -	\$ -
Total					\$ 380,813	\$ 72,947

Region: Quebec, Nord
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5862	\$ 12.00	\$ 70,348
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 70,348

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,843
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,377
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,029
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 769
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 575
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 429
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 321
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 29,500	\$ 8,220

Region: Quebec, Nord
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Extra layer	Binder HMA, mm (t)	60	1125	\$ 65.00	\$ 73,125
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3057	\$ 12.00	\$ 36,688
Subbase	Granular Subbase, mm (t)	450	10347	\$ 10.00	\$ 103,467
Shoulder	Surface HMA, mm (t)	0	0	\$ 75.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 65.00	\$ -
Subgrade	Subgrade Improvement, % area (m2)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 352,468

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,941
18	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 27,097
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 3,487
32	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 9,443
32	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 10,895
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 4,718
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 367,688	\$ 70,913

Region: Quebec, Nord
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2848	\$ 12.00	\$ 34,172
Subbase	Granular Subbase, mm (t)	300	6557	\$ 10.00	\$ 65,574
Shoulder	Surface HMA, mm (t)	0	0	\$ 75.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 65.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 238,934

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,941
18	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 27,097
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 3,487
32	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 9,443
32	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 10,895
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 4,718
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 367,688	\$ 70,913

Region: Quebec, Nord
Category: Municipal Urbal Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5934	\$ 12.00	\$ 71,210
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	0	0	\$ 75.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 65.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 210,398

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 784
12	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 4,845
12	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 932
18	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 3,941
18	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 27,097
22	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 347
22	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 2,706
32	Mill AC, mm (t)	100	1875	\$ 12.00	\$ 22,500	\$ 3,487
32	Resurface with Binder HMA, mm (t)	50	938	\$ 65.00	\$ 60,938	\$ 9,443
32	Resurface with Surface HMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 10,895
38	Rout and seal, m (m)	500	500.0	\$ 2.50	\$ 1,250	\$ 137
44	Spot repairs - mill and patch, % Area (m2)	5	375.0	\$ 26.00	\$ 9,750	\$ 751
44	Rout and seal, m (m)	750	750.0	\$ 2.50	\$ 1,875	\$ 144
48	Mill AC, mm (t)	50	938	\$ 12.00	\$ 11,250	\$ 686
48	Resurface with Surface HMA, mm (t)	50	938	\$ 82.50	\$ 77,344	\$ 4,718
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				\$ -	\$ -	\$ -
Total					\$ 367,688	\$ 70,913

ONTARIO - SOUTH

Region: Ontario, South
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	4.50
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Dense Friction Course, mm (t)	40	750	\$ 68.88	\$ 51,660
Binder	Heavy Duty Binder, mm (t)	80	1500	\$ 53.91	\$ 80,865
Extra layer	HL-8, mm (t)	200	3750	\$ 49.42	\$ 185,325
OGDL	Open Graded Drainage Layer, mm (t)	10	188	\$ 45.00	\$ 8,438
Base	Granular A, mm (t)	150	9114	\$ 13.01	\$ 118,571
Subbase	Granular B, mm (t)	450	15906	\$ 6.71	\$ 106,726
Shoulder	Dense Friction Course, mm (t)	40	450	\$ 68.88	\$ 30,996
Shoulder	Heavy Duty Binder, mm (t)	80	900	\$ 53.91	\$ 48,519
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100	\$ 18.00	\$ 1,800
Drainage	Closed drainage, % of occurrence (m)	10		\$ -	\$ -
Total					\$ 632,900

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)		120	\$ 2.00	\$ 240	\$ 202
9	Rout and seal, m (m)		310	\$ 2.00	\$ 620	\$ 367
9	Spot repairs - mill and patch, % Area (m ²)		370	\$ 7.70	\$ 2,849	\$ 1,686
15	Rout and seal, m (m)		590	\$ 2.00	\$ 1,180	\$ 492
15	Spot repairs - mill and patch, % Area (m ²)		1480	\$ 7.70	\$ 11,396	\$ 4,755
19	Mill AC, mm (t)	80	1500	\$ 11.00	\$ 16,500	\$ 5,453
19	Resurface with Dense Friction Course, mm (t)	40	750	\$ 68.88	\$ 51,660	\$ 17,074
19	Resurface with Heavy Duty Binder, mm (t)	40	750	\$ 53.91	\$ 40,433	\$ 13,363
22	Rout and seal, m (m)		120	\$ 2.00	\$ 240	\$ 67
27	Rout and seal, m (m)		470	\$ 2.00	\$ 940	\$ 195
27	Spot repairs - mill and patch, % Area (m ²)		740	\$ 7.70	\$ 5,698	\$ 1,182
31	Mill AC, mm (t)	80	1500	\$ 11.00	\$ 16,500	\$ 2,710
31	Resurface with Dense Friction Course, mm (t)	40	750	\$ 68.88	\$ 51,660	\$ 8,485
31	Resurface with Heavy Duty Binder, mm (t)	40	750	\$ 53.91	\$ 40,433	\$ 6,641
34	Rout and seal, m (m)		120	\$ 2.00	\$ 240	\$ 33
38	Rout and seal, m (m)		470	\$ 2.00	\$ 940	\$ 103
38	Spot repairs - mill and patch, % Area (m ²)		740	\$ 7.70	\$ 5,698	\$ 622
42	Mill AC, mm (t)	80	1500	\$ 11.00	\$ 16,500	\$ 1,428
42	Resurface with Dense Friction Course, mm (t)	40	750	\$ 68.88	\$ 51,660	\$ 4,470
42	Resurface with Heavy Duty Binder, mm (t)	40	750	\$ 53.91	\$ 40,433	\$ 3,499
45	Rout and seal, m (m)	117	120	\$ 2.00	\$ 240	\$ 17
48	Rout and seal, m (m)		470	\$ 2.00	\$ 940	\$ 57
48	Spot repairs - mill and patch, % Area (m ²)		740	\$ 7.70	\$ 5,698	\$ 348
53	Mill AC, mm (t)	80	1500	\$ 11.00	\$ 16,500	\$ 752
53	Resurface with Dense Friction Course, mm (t)	40	750	\$ 68.88	\$ 51,660	\$ 2,355
53	Resurface with Heavy Duty Binder, mm (t)	40	750	\$ 53.91	\$ 40,433	\$ 1,843
56	Rout and seal, m (m)		120	\$ 2.00	\$ 240	\$ 9
59	Rout and seal, m (m)		470	\$ 2.00	\$ 940	\$ 30
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 472,469	\$ 78,240

Region: Ontario, South
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563
Binder	Medium Duty Binder, mm (t)	60	1125	\$ 53.70	\$ 60,413
Extra layer	Medium Duty Binder, mm (t)	60	1125	\$ 53.70	\$ 60,413
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	6991	\$ 13.01	\$ 90,951
Subbase	Granular B, mm (t)	450	15206	\$ 6.71	\$ 102,031
Shoulder	HL-1, mm (t)	40	100	\$ 68.75	\$ 6,875
Shoulder	Medium Duty Binder, mm (t)	50	125	\$ 53.70	\$ 6,713
Subgrade	Subgrade improvement, % area (m ²)		500	\$ 5.00	\$ 2,500
Subdrains	Includes trenching and outlets, % of occurrence (m)	0		\$ 18.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	5		\$ -	\$ -
Total					\$ 381,456

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
9	Spot repairs - mill and patch, % Area (m2)	10	750	\$ 7.70	\$ 5,775	\$ 3,418
15	Mill AC, mm (t)	40	750	\$ 11.00	\$ 8,250	\$ 3,442
15	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 21,515
15	Resurface with Medium Duty Binder, mm (t)	50	938	\$ 53.70	\$ 50,344	\$ 21,007
19	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 331
19	Spot repairs - mill and patch, % Area (m2)	20	1500	\$ 7.70	\$ 11,550	\$ 3,817
27	Mill AC, mm (t)	40	750	\$ 11.00	\$ 8,250	\$ 1,711
27	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 10,692
27	Resurface with Medium Duty Binder, mm (t)	50	938	\$ 53.70	\$ 50,344	\$ 10,440
31	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 164
35	Spot repairs - mill and patch, % Area (m2)	20	1500	\$ 7.70	\$ 11,550	\$ 1,503
38	Mill AC, mm (t)	40	750	\$ 11.00	\$ 8,250	\$ 901
38	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 5,633
38	Resurface with Medium Duty Binder, mm (t)	50	938	\$ 53.70	\$ 50,344	\$ 5,499
42	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - mill and patch, % Area (m2)	20	1500	\$ 7.70	\$ 11,550	\$ 999
48	Mill AC, mm (t)	130	2438	\$ 11.00	\$ 26,813	\$ 1,636
48	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 3,145
48	Resurface with Heavy Duty Binder, mm (t)	40	750	\$ 53.91	\$ 40,433	\$ 2,466
48	Resurface with HL-8, mm (t)	50	938	\$ 49.42	\$ 46,331	\$ 2,826
53	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 46
57	Spot repairs - mill and patch, % Area (m2)	10	750	\$ 7.70	\$ 5,775	\$ 209
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 546,808	\$ 102,234

Region: Ontario, South
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.25
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844
Binder	Medium Duty Binder, mm (t)	100	1813	\$ 53.70	\$ 97,331
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	6655	\$ 13.01	\$ 86,577
Subbase	Granular B, mm (t)	450	14840	\$ 6.71	\$ 99,579
Shoulder	HL-1, mm (t)	40	100	\$ 68.75	\$ 6,875
Shoulder	Medium Duty Binder, mm (t)	10	25	\$ 53.70	\$ 1,343
Subgrade	Subgrade improvement, % area (m ²)		800	\$ 5.00	\$ 4,000
Subdrains	Includes trenching and outlets, % of occurrence (m)	0		\$ 18.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 345,549

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.70	\$ 5,583	\$ 2,941
15	Mill AC, mm (t)	40	725	\$ 11.00	\$ 7,975	\$ 3,328
15	Resurface with HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844	\$ 20,798
15	Resurface with Medium Duty Binder, mm (t)	50	906	\$ 53.70	\$ 48,666	\$ 20,306
19	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 331
19	Spot repairs - mill and patch, % Area (m2)	20	1450	\$ 7.70	\$ 11,165	\$ 3,690
27	Mill AC, mm (t)	40	725	\$ 11.00	\$ 7,975	\$ 1,654
27	Resurface with HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844	\$ 10,336
27	Resurface with Medium Duty Binder, mm (t)	50	906	\$ 53.70	\$ 48,666	\$ 10,092
31	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 164
36	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.70	\$ 5,583	\$ 685
38	Mill AC, mm (t)	50	906	\$ 11.00	\$ 9,969	\$ 1,089
38	Resurface with HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844	\$ 5,445
38	Resurface with Medium Duty Binder, mm (t)	50	906	\$ 53.70	\$ 48,666	\$ 5,316
42	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - mill and patch, % Area (m2)	20	1450	\$ 7.70	\$ 11,165	\$ 966
48	Mill AC, mm (t)	120	2175	\$ 11.00	\$ 23,925	\$ 1,459
48	Resurface with HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844	\$ 3,040
48	Resurface with HL-8, mm (t)	80	1450	\$ 49.42	\$ 71,659	\$ 4,371
53	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 46
59	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.70	\$ 5,583	\$ 179
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 510,952	\$ 97,070

Region: Ontario, South
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710	\$ 45.83	\$ 32,539
Binder	HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	5356	\$ 13.01	\$ 69,678
Subbase	Granular B, mm (t)	450	13724	\$ 6.71	\$ 92,088
Shoulder	HL-4, mm (t)	0	0	\$ 45.83	\$ -
Shoulder	HL-8, mm (t)	0	0	\$ 49.42	\$ -
Subgrade	Subgrade improvement, % area (m ²)		100	\$ 5.00	\$ 500
Subdrains	Includes trenching and outlets, % of occurrence (m)	0		\$ 18.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 238,666

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.70	\$ 5,467	\$ 3,854
12	Resurface with HL-4, mm (t)	50	888	\$ 45.83	\$ 40,674	\$ 20,214
18	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 350
18	Spot repairs - mill and patch, % Area (m2)	20	1420	\$ 7.70	\$ 10,934	\$ 3,831
22	Mill AC, mm (t)	140	2485	\$ 11.00	\$ 27,335	\$ 7,586
22	Resurface with HL-4, mm (t)	40	710	\$ 45.83	\$ 32,539	\$ 9,030
22	Resurface with HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860	\$ 12,171
26	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 220
30	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.70	\$ 5,467	\$ 952
34	Resurface with HL-4, mm (t)	50	888	\$ 45.83	\$ 40,674	\$ 5,609
38	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 109
44	Mill AC, mm (t)	140	2485	\$ 11.00	\$ 27,335	\$ 2,105
44	Resurface with HL-4, mm (t)	40	710	\$ 45.83	\$ 32,539	\$ 2,506
44	Resurface with HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860	\$ 3,378
48	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 61
52	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.70	\$ 5,467	\$ 264
56	Resurface with HL-4, mm (t)	50	888	\$ 45.83	\$ 40,674	\$ 1,557
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Total					\$ 360,826	\$ 73,796

Region: Ontario, South
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	3.50
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	SMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Heavy Duty Binder, mm (t)	80	1500	\$ 53.91	\$ 80,865
Extra layer	HI-8, mm (t)	200	3750	\$ 49.42	\$ 185,325
OGDL	Open Graded Drainage Layer, mm (t)	50	938	\$ 45.00	\$ 42,188
Base	Granular A, mm (t)	150	9021	\$ 13.01	\$ 117,359
Subbase	Granular B, mm (t)	450	15373	\$ 6.71	\$ 103,153
Shoulder	SMA, mm (t)	40	350	\$ 75.00	\$ 26,250
Shoulder	Heavy Duty Binder, mm (t)	80	700	\$ 53.91	\$ 37,737
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	50	500	\$ 18.00	\$ 9,000
Drainage	Closed drainage, % of occurrence (m)	100		\$ -	\$ -
Total					\$ 658,126

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 151
9	Rout and seal, m (m)		190	\$ 2.00	\$ 380	\$ 225
9	Spot repairs - mill and patch, % Area (m2)		370	\$ 7.70	\$ 2,849	\$ 1,686
15	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 309
15	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.70	\$ 8,547	\$ 3,566
19	Rout and seal, m (m)		590	\$ 2.00	\$ 1,180	\$ 390
19	Spot repairs - mill and patch, % Area (m2)		1480	\$ 7.70	\$ 11,396	\$ 3,767
21	Mill AC, mm (t)	50	938	\$ 11.00	\$ 10,313	\$ 3,033
21	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 20,683
24	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 44
28	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 145
28	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.70	\$ 8,547	\$ 1,672
31	Rout and seal, m (m)		190	\$ 2.00	\$ 380	\$ 62
34	Mill AC, mm (t)	50	938	\$ 11.00	\$ 10,313	\$ 1,422
34	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 9,697
37	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 21
41	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 68
41	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.70	\$ 8,547	\$ 784
46	Mill AC, mm (t)	50	938	\$ 11.00	\$ 10,313	\$ 707
46	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,819
49	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 10
53	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 34
53	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.70	\$ 8,547	\$ 390
58	Mill AC, mm (t)	50	938	\$ 11.00	\$ 10,313	\$ 351
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Total					\$ 306,241	\$ 54,037

Region: Ontario, South
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563
Binder	Medium Duty Binder, mm (t)	60	1125	\$ 53.70	\$ 60,413
Extra layer	Medium Duty Binder, mm (t)	60	1125	\$ 53.70	\$ 60,413
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	5187	\$ 13.01	\$ 67,481
Subbase	Granular B, mm (t)	450	14477	\$ 6.71	\$ 97,141
Shoulder	HL-1, mm (t)	40	500	\$ 68.75	\$ 34,375
Shoulder	Medium Duty Binder, mm (t)	80	1000	\$ 53.70	\$ 53,700
Subgrade	Subgrade improvement, % area (m ²)		800	\$ 5.00	\$ 4,000
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100	\$ 18.00	\$ 1,800
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 430,884

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
9	Spot repairs - mill and patch, % Area (m2)	10	750	\$ 7.70	\$ 5,775	\$ 3,418
15	Mill AC, mm (t)	40	750	\$ 11.00	\$ 8,250	\$ 3,442
15	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 21,515
15	Resurface with Medium Duty Binder, mm (t)	50	938	\$ 53.70	\$ 50,344	\$ 21,007
19	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 331
19	Spot repairs - mill and patch, % Area (m2)	20	1500	\$ 7.70	\$ 11,550	\$ 3,817
27	Mill AC, mm (t)	40	750	\$ 11.00	\$ 8,250	\$ 1,711
27	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 10,692
27	Resurface with Medium Duty Binder, mm (t)	50	938	\$ 53.70	\$ 50,344	\$ 10,440
31	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 164
35	Spot repairs - mill and patch, % Area (m2)	20	1500	\$ 7.70	\$ 11,550	\$ 1,503
38	Mill AC, mm (t)	40	750	\$ 11.00	\$ 8,250	\$ 901
38	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 5,633
38	Resurface with Medium Duty Binder, mm (t)	50	938	\$ 53.70	\$ 50,344	\$ 5,499
42	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - mill and patch, % Area (m2)	20	1500	\$ 7.70	\$ 11,550	\$ 999
48	Mill AC, mm (t)	130	2438	\$ 11.00	\$ 26,813	\$ 1,636
48	Resurface with HL-1, mm (t)	40	750	\$ 68.75	\$ 51,563	\$ 3,145
48	Resurface with Heavy Duty Binder, mm (t)	40	750	\$ 53.91	\$ 40,433	\$ 2,466
48	Resurface with HL-8, mm (t)	50	938	\$ 49.42	\$ 46,331	\$ 2,826
53	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 46
57	Spot repairs - mill and patch, % Area (m2)	10	750	\$ 7.70	\$ 5,775	\$ 209
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Total					\$ 546,808	\$ 102,234

Region: Ontario, South
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.25
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844
Binder	Medium Duty Binder, mm (t)	80	1450	\$ 53.70	\$ 77,865
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	4844	\$ 13.01	\$ 63,023
Subbase	Granular B, mm (t)	450	14756	\$ 6.71	\$ 99,013
Shoulder	HL-1, mm (t)	40	600	\$ 68.75	\$ 41,250
Shoulder	Medium Duty Binder, mm (t)	80	1200	\$ 53.70	\$ 64,440
Subgrade	Subgrade improvement, % area (m ²)		800	\$ 5.00	\$ 4,000
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100	\$ 18.00	\$ 1,800
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 401,235

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.70	\$ 5,583	\$ 2,941
15	Mill AC, mm (t)	40	725	\$ 11.00	\$ 7,975	\$ 3,328
15	Resurface with HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844	\$ 20,798
15	Resurface with Medium Duty Binder, mm (t)	50	906	\$ 53.70	\$ 48,666	\$ 20,306
19	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 331
19	Spot repairs - mill and patch, % Area (m2)	20	1450	\$ 7.70	\$ 11,165	\$ 3,690
27	Mill AC, mm (t)	40	725	\$ 11.00	\$ 7,975	\$ 1,654
27	Resurface with HL-1, mm (t)	50	906	\$ 68.75	\$ 62,305	\$ 12,920
31	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 164
36	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.70	\$ 5,583	\$ 685
38	Mill AC, mm (t)	50	906	\$ 11.00	\$ 9,969	\$ 1,089
38	Resurface with HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844	\$ 5,445
38	Resurface with Medium Duty Binder, mm (t)	50	906	\$ 53.70	\$ 48,666	\$ 5,316
42	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - mill and patch, % Area (m2)	20	1450	\$ 7.70	\$ 11,165	\$ 966
48	Mill AC, mm (t)	120	2175	\$ 11.00	\$ 23,925	\$ 1,459
48	Resurface with HL-1, mm (t)	40	725	\$ 68.75	\$ 49,844	\$ 3,040
48	Resurface with HL-8, mm (t)	80	1450	\$ 49.42	\$ 71,659	\$ 4,371
53	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 46
59	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.70	\$ 5,583	\$ 179
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Total					\$ 474,747	\$ 89,563

Region: Ontario, South
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710	\$ 45.83	\$ 32,539
Binder	HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	3772	\$ 13.01	\$ 49,070
Subbase	Granular B, mm (t)	450	11340	\$ 6.71	\$ 76,091
Shoulder	HL-4, mm (t)	0	0	\$ 45.83	\$ -
Shoulder	HL-8, mm (t)	0	0	\$ 49.42	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100	\$ 18.00	\$ 1,800
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 203,360

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.70	\$ 5,467	\$ 3,854
12	Resurface with HL-4, mm (t)	50	888	\$ 45.83	\$ 40,674	\$ 20,214
18	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 350
18	Spot repairs - mill and patch, % Area (m2)	20	1420	\$ 7.70	\$ 10,934	\$ 3,831
22	Mill AC, mm (t)	140	2485	\$ 11.00	\$ 27,335	\$ 7,586
22	Resurface with HL-4, mm (t)	40	710	\$ 45.83	\$ 32,539	\$ 9,030
22	Resurface with HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860	\$ 12,171
26	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 220
30	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.70	\$ 5,467	\$ 952
34	Resurface with HL-4, mm (t)	50	888	\$ 45.83	\$ 40,674	\$ 5,609
38	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 109
44	Mill AC, mm (t)	140	2485	\$ 11.00	\$ 27,335	\$ 2,105
44	Resurface with HL-4, mm (t)	40	710	\$ 45.83	\$ 32,539	\$ 2,506
44	Resurface with HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860	\$ 3,378
48	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 61
52	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.70	\$ 5,467	\$ 264
56	Resurface with HL-4, mm (t)	50	888	\$ 45.83	\$ 40,674	\$ 1,557
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				\$ -	\$ -	\$ -
Total					\$ 360,826	\$ 73,796

Region: Ontario, South
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760
Binder	HL-8, mm (t)	80	1480	\$ 58.00	\$ 85,840
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	6280	\$ 13.00	\$ 81,636
Subbase	Granular B, mm (t)	450	14924	\$ 8.50	\$ 126,858
Shoulder	HL-1, mm (t)	40	100	\$ 74.00	\$ 7,400
Shoulder	HL-8, mm (t)	50	125	\$ 58.00	\$ 7,250
Subgrade	Subgrade improvement, % area (m ²)		100	\$ 5.00	\$ 500
Subdrains	Includes trenching and outlets, % of occurrence (m)		800	\$ 20.00	\$ 16,000
Drainage	Closed drainage, % of occurrence (m)	10		\$ -	\$ -
Total					\$ 380,244

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
10	Spot repairs - mill and patch, % Area (m2)		740	\$ 7.00	\$ 5,180	\$ 2,892
15	Mill AC, mm (t)	40	740	\$ 10.00	\$ 7,400	\$ 3,088
15	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 22,849
18	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 350
25	Mill AC, mm (t)	80	1480	\$ 10.00	\$ 14,800	\$ 3,448
25	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 12,759
25	Resurface with HL-8, mm (t)	40	740	\$ 58.00	\$ 42,920	\$ 10,000
29	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 185
34	Spot repairs - mill and patch, % Area (m2)	20	1480	\$ 7.00	\$ 10,360	\$ 1,429
39	Mill AC, mm (t)	40	740	\$ 10.00	\$ 7,400	\$ 763
39	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 5,643
42	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 87
49	Mill AC, mm (t)	120	2220	\$ 10.00	\$ 22,200	\$ 1,278
49	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 3,151
49	Resurface with HL-8, mm (t)	80	1480	\$ 58.00	\$ 85,840	\$ 4,940
49	Add to Granular Base, mm (t)	50	925	\$ 13.00	\$ 12,025	\$ 692
54	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 43
59	Spot repairs - mill and patch, % Area (m2)		740	\$ 7.00	\$ 5,180	\$ 166
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				\$ -	\$ -	\$ -
Total					\$ 437,345	\$ 74,511

Region: Ontario, South
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	5.50
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340
Binder	HL-8, mm (t)	80	1420	\$ 58.00	\$ 82,360
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	5972	\$ 13.00	\$ 77,632
Subbase	Granular B, mm (t)	400	12535	\$ 8.50	\$ 106,546
Shoulder	HL-4, mm (t)	40	100	\$ 54.00	\$ 5,400
Shoulder	HL-8, mm (t)	10	25	\$ 58.00	\$ 1,450
Subgrade	Subgrade improvement, % area (m ²)		100	\$ 5.00	\$ 500
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 312,229

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)		710	\$ 7.00	\$ 4,970	\$ 2,618
16	Mill AC, mm (t)	40	710	\$ 10.00	\$ 7,100	\$ 2,795
16	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 15,092
19	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 331
26	Mill AC, mm (t)	80	1420	\$ 10.00	\$ 14,200	\$ 3,121
26	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 8,428
26	Resurface with HL-8, mm (t)	40	710	\$ 58.00	\$ 41,180	\$ 9,052
30	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)		1420	\$ 7.00	\$ 9,940	\$ 1,220
41	Mill AC, mm (t)	40	710	\$ 10.00	\$ 7,100	\$ 651
41	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 3,517
44	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 77
51	Mill AC, mm (t)	120	2130	\$ 10.00	\$ 21,300	\$ 1,091
51	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 1,964
51	Resurface with HL-8, mm (t)	80	1420	\$ 58.00	\$ 82,360	\$ 4,218
51	Add to Granular Base, mm (t)	50	888	\$ 13.00	\$ 11,538	\$ 591
56	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 38
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 358,048	\$ 55,724

Region: Ontario, South
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	300	5862	\$ 13.00	\$ 76,211
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 76,211

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 1,815
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 1,356
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 1,013
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 757
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 566
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 423
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 316
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
Total					\$ 29,150	\$ 8,124

Region: Ontario, South
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760
Binder	HL-8, mm (t)	80	1480	\$ 58.00	\$ 85,840
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	4894	\$ 13.00	\$ 63,618
Subbase	Granular B, mm (t)	450	14924	\$ 8.50	\$ 126,858
Shoulder	HL-1, mm (t)	40	600	\$ 74.00	\$ 44,400
Shoulder	HL-8, mm (t)	80	1200	\$ 58.00	\$ 69,600
Subgrade	Subgrade improvement, % area (m ²)		100	\$ 5.00	\$ 500
Subdrains	Includes trenching and outlets, % of occurrence (m)		1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100		\$ -	\$ -
Total					\$ 465,576

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
10	Spot repairs - mill and patch, % Area (m2)		740	\$ 7.00	\$ 5,180	\$ 2,892
15	Mill AC, mm (t)	40	740	\$ 10.00	\$ 7,400	\$ 3,088
15	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 22,849
18	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 350
25	Mill AC, mm (t)	80	1480	\$ 10.00	\$ 14,800	\$ 3,448
25	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 12,759
25	Resurface with HL-8, mm (t)	40	740	\$ 58.00	\$ 42,920	\$ 10,000
29	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 185
34	Spot repairs - mill and patch, % Area (m2)	20	1480	\$ 7.00	\$ 10,360	\$ 1,429
39	Mill AC, mm (t)	40	740	\$ 10.00	\$ 7,400	\$ 763
39	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 5,643
42	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 87
49	Mill AC, mm (t)	120	2220	\$ 10.00	\$ 22,200	\$ 1,278
49	Resurface with HL-1, mm (t)	40	740	\$ 74.00	\$ 54,760	\$ 3,151
49	Resurface with HL-8, mm (t)	80	1480	\$ 58.00	\$ 85,840	\$ 4,940
49	Add to Granular Base, mm (t)	50	925	\$ 13.00	\$ 12,025	\$ 692
54	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 43
59	Spot repairs - mill and patch, % Area (m2)		740	\$ 7.00	\$ 5,180	\$ 166
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 437,345	\$ 74,511

Region: Ontario, South
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	5.50
Total width of both paved shoulders, m	5.50
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340
Binder	HL-8, mm (t)	80	1420	\$ 58.00	\$ 82,360
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	4630	\$ 13.00	\$ 60,186
Subbase	Granular B, mm (t)	400	12535	\$ 8.50	\$ 106,546
Shoulder	HL-4, mm (t)	40	550	\$ 54.00	\$ 29,700
Shoulder	HL-8, mm (t)	80	1100	\$ 58.00	\$ 63,800
Subgrade	Subgrade improvement, % area (m ²)		100	\$ 5.00	\$ 500
Subdrains	Includes trenching and outlets, % of occurrence (m)		500	\$ 20.00	\$ 10,000
Drainage	Closed drainage, % of occurrence (m)	90		\$ -	\$ -
Total					\$ 391,433

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)		710	\$ 7.00	\$ 4,970	\$ 2,618
16	Mill AC, mm (t)	40	710	\$ 10.00	\$ 7,100	\$ 2,795
16	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 15,092
19	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 331
26	Mill AC, mm (t)	80	1420	\$ 10.00	\$ 14,200	\$ 3,121
26	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 8,428
26	Resurface with HL-8, mm (t)	40	710	\$ 58.00	\$ 41,180	\$ 9,052
30	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)		1420	\$ 7.00	\$ 9,940	\$ 1,220
41	Mill AC, mm (t)	40	710	\$ 10.00	\$ 7,100	\$ 651
41	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 3,517
44	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 77
51	Mill AC, mm (t)	120	2130	\$ 10.00	\$ 21,300	\$ 1,091
51	Resurface with HL-4, mm (t)	40	710	\$ 54.00	\$ 38,340	\$ 1,964
51	Resurface with HL-8, mm (t)	80	1420	\$ 58.00	\$ 82,360	\$ 4,218
51	Add to Granular Base, mm (t)	50	888	\$ 13.00	\$ 11,538	\$ 591
56	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 38
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 358,048	\$ 55,724

Region: Ontario, South
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.50
Total width of both paved shoulders, m	3.50
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	700	\$ 54.00	\$ 37,800
Binder	HL-8, mm (t)	50	875	\$ 58.00	\$ 50,750
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	3838	\$ 13.00	\$ 49,890
Subbase	Granular B, mm (t)	450	12455	\$ 8.50	\$ 105,869
Shoulder	HL-4, mm (t)	40	350	\$ 54.00	\$ 18,900
Shoulder	HL-8, mm (t)	50	438	\$ 58.00	\$ 25,375
Subgrade	Subgrade improvement, % area (m ²)		700	\$ 5.00	\$ 3,500
Subdrains	Includes trenching and outlets, % of occurrence (m)		200	\$ 20.00	\$ 4,000
Drainage	Closed drainage, % of occurrence (m)			\$ -	\$ -
Total					\$ 296,084

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Spot repairs - mill and patch, % Area (m2)	10	700	\$ 7.00	\$ 4,900	\$ 3,074
14	Resurface with HL-4, mm (t)	40	700	\$ 54.00	\$ 37,800	\$ 16,719
18	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 350
21	Spot repairs - mill and patch, % Area (m2)	20	1400	\$ 7.00	\$ 9,800	\$ 2,883
28	Mill AC, mm (t)	80	1400	\$ 10.00	\$ 14,000	\$ 2,739
28	Resurface with HL-4, mm (t)	40	700	\$ 54.00	\$ 37,800	\$ 7,395
28	Resurface with HL-8, mm (t)	40	700	\$ 58.00	\$ 40,600	\$ 7,943
35	Spot repairs - mill and patch, % Area (m2)	10	700	\$ 7.00	\$ 4,900	\$ 638
41	Resurface with HL-4, mm (t)	40	700	\$ 54.00	\$ 37,800	\$ 3,467
45	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 73
48	Spot repairs - mill and patch, % Area (m2)	20	1400	\$ 7.00	\$ 9,800	\$ 598
54	Mill AC, mm (t)	150	2625	\$ 10.00	\$ 26,250	\$ 1,129
54	Resurface with HL-4, mm (t)	40	700	\$ 54.00	\$ 37,800	\$ 1,625
54	Resurface with HL-8, mm (t)	80	1400	\$ 58.00	\$ 81,200	\$ 3,492
54	Add to Granular Base, mm (t)	50	875	\$ 13.00	\$ 11,375	\$ 489
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 356,025	\$ 52,613

ONTARIO - NORTH

Region: Ontario, North
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	4.50
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Dense Friction Course, mm (t)	40	750.0	\$ 62.23	\$ 46,673
Binder	Heavy Duty Binder, mm (t)	80	1500.0	\$ 54.54	\$ 81,810
Extra layer	HL-8, mm (t)	200	3750.0	\$ 49.42	\$ 185,325
OGDL	Open Graded Drainage Layer, mm (t)	10	187.5	\$ -	\$ -
Base	Granular A, mm (t)	150	9113.8	\$ 10.90	\$ 99,341
Subbase	Granular B, mm (t)	600	21779.9	\$ 7.97	\$ 173,586
Shoulder	Dense Friction Course, mm (t)	40	450.0	\$ 62.23	\$ 28,004
Shoulder	Heavy Duty Binder, mm (t)	80	900.0	\$ 54.54	\$ 49,086
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100.0	\$ 20.00	\$ 2,000
Drainage	Closed drainage, % of occurrence (m)	10		\$ -	\$ -
Total					\$ 665,823

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)		120.0	\$ 2.00	\$ 240	\$ 202
9	Rout and seal, m (m)		310.0	\$ 2.00	\$ 620	\$ 367
9	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.50	\$ 5,625	\$ 3,329
15	Rout and seal, m (m)		590.0	\$ 2.00	\$ 1,180	\$ 492
15	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.50	\$ 11,250	\$ 4,694
19	Mill AC, mm (t)	80	1500.0	\$ 7.50	\$ 11,250	\$ 3,718
19	Resurface with Dense Friction Course, mm (t)	40	750.0	\$ 62.23	\$ 46,673	\$ 15,426
19	Resurface with Heavy Duty Binder, mm (t)	40	750.0	\$ 54.54	\$ 40,905	\$ 13,520
22	Rout and seal, m (m)		120.0	\$ 2.00	\$ 240	\$ 67
27	Rout and seal, m (m)		470.0	\$ 2.00	\$ 940	\$ 195
27	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.50	\$ 5,625	\$ 1,166
31	Mill AC, mm (t)	80	1500.0	\$ 7.50	\$ 11,250	\$ 1,848
31	Resurface with Dense Friction Course, mm (t)	40	750.0	\$ 62.23	\$ 46,673	\$ 7,666
31	Resurface with Heavy Duty Binder, mm (t)	40	750.0	\$ 54.54	\$ 40,905	\$ 6,719
34	Rout and seal, m (m)		120.0	\$ 2.00	\$ 240	\$ 33
38	Rout and seal, m (m)		470.0	\$ 2.00	\$ 940	\$ 103
38	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.50	\$ 5,625	\$ 614
42	Mill AC, mm (t)	80	1500.0	\$ 7.50	\$ 11,250	\$ 973
42	Resurface with Dense Friction Course, mm (t)	40	750.0	\$ 62.23	\$ 46,673	\$ 4,038
42	Resurface with Heavy Duty Binder, mm (t)	40	750.0	\$ 54.54	\$ 40,905	\$ 3,539
45	Rout and seal, m (m)	117	120.0	\$ 2.00	\$ 240	\$ 17
48	Rout and seal, m (m)		470.0	\$ 2.00	\$ 940	\$ 57
48	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.50	\$ 5,625	\$ 343
53	Mill AC, mm (t)	80	1500.0	\$ 7.50	\$ 11,250	\$ 513
53	Resurface with Dense Friction Course, mm (t)	40	750.0	\$ 62.23	\$ 46,673	\$ 2,127
53	Resurface with Heavy Duty Binder, mm (t)	40	750.0	\$ 54.54	\$ 40,905	\$ 1,865
56	Rout and seal, m (m)		120.0	\$ 2.00	\$ 240	\$ 9
59	Rout and seal, m (m)		470.0	\$ 2.00	\$ 940	\$ 30
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 435,820	\$ 73,673

Region: Ontario, North
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	750.0	\$ 60.20	\$ 45,150
Binder	Medium Duty Binder, mm (t)	60	1125.0	\$ 53.47	\$ 60,154
Extra layer	Medium Duty Binder, mm (t)	60	1125.0	\$ 53.47	\$ 60,154
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	6990.8	\$ 10.90	\$ 76,200
Subbase	Granular B, mm (t)	600	20790.6	\$ 7.97	\$ 165,701
Shoulder	HL-1, mm (t)	40	100.0	\$ 60.20	\$ 6,020
Shoulder	Medium Duty Binder, mm (t)	50	125.0	\$ 53.47	\$ 6,684
Subgrade	Subgrade improvement, % area (m ²)		500.0	\$ 80.00	\$ 40,000
Subdrains	Includes trenching and outlets, % of occurrence (m)			\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	5		\$ -	\$ -
Total					\$ 460,062

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 747
9	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.50	\$ 5,625	\$ 3,329
15	Mill AC, mm (t)	40	750.0	\$ 7.50	\$ 5,625	\$ 2,347
15	Resurface with HL-1, mm (t)	40	750.0	\$ 60.20	\$ 45,150	\$ 18,840
15	Resurface with Medium Duty Binder, mm (t)	50	937.5	\$ 53.47	\$ 50,128	\$ 20,917
19	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 331
19	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.50	\$ 11,250	\$ 3,718
27	Mill AC, mm (t)	40	750.0	\$ 7.50	\$ 5,625	\$ 1,166
27	Resurface with HL-1, mm (t)	40	750.0	\$ 60.20	\$ 45,150	\$ 9,363
27	Resurface with Medium Duty Binder, mm (t)	50	937.5	\$ 53.47	\$ 50,128	\$ 10,395
31	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 164
35	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.50	\$ 11,250	\$ 1,464
38	Mill AC, mm (t)	40	750.0	\$ 7.50	\$ 5,625	\$ 614
38	Resurface with HL-1, mm (t)	40	750.0	\$ 60.20	\$ 45,150	\$ 4,932
38	Resurface with Medium Duty Binder, mm (t)	50	937.5	\$ 53.47	\$ 50,128	\$ 5,476
42	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - mill and patch, % Area (m2)	20	1500.0	\$ 7.50	\$ 11,250	\$ 973
48	Mill AC, mm (t)	130	2437.5	\$ 7.50	\$ 18,281	\$ 1,115
48	Resurface with HL-1, mm (t)	40	750.0	\$ 60.20	\$ 45,150	\$ 2,754
48	Resurface with Heavy Duty Binder, mm (t)	40	750.0	\$ 54.54	\$ 40,905	\$ 2,495
48	Resurface with HL-8, mm (t)	50	937.5	\$ 49.42	\$ 46,331	\$ 2,826
53	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 46
57	Spot repairs - mill and patch, % Area (m2)	10	750.0	\$ 7.50	\$ 5,625	\$ 203
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 503,377	\$ 94,302

Region: Ontario, North
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.25
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	725.0	\$ 60.20	\$ 43,645
Binder	Medium Duty Binder, mm (t)	100	1812.5	\$ 53.47	\$ 96,914
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	6654.7	\$ 10.90	\$ 72,536
Subbase	Granular B, mm (t)	600	20310.3	\$ 7.97	\$ 161,873
Shoulder	HL-1, mm (t)	40	100.0	\$ 60.20	\$ 6,020
Shoulder	Medium Duty Binder, mm (t)	10	25.0	\$ 53.47	\$ 1,337
Subgrade	Subgrade improvement, % area (m ²)		800.0	\$ 80.00	\$ 64,000
Subdrains	Includes trenching and outlets, % of occurrence (m)	0		\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 446,326

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	725.0	\$ 7.50	\$ 5,438	\$ 2,864
15	Mill AC, mm (t)	40	725.0	\$ 7.50	\$ 5,438	\$ 2,269
15	Resurface with HL-1, mm (t)	40	725.0	\$ 60.20	\$ 43,645	\$ 18,212
15	Resurface with Medium Duty Binder, mm (t)	50	906.3	\$ 53.47	\$ 48,457	\$ 20,219
19	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 331
19	Spot repairs - mill and patch, % Area (m2)	20	1450.0	\$ 7.50	\$ 10,875	\$ 3,594
27	Mill AC, mm (t)	40	725.0	\$ 7.50	\$ 5,438	\$ 1,128
27	Resurface with HL-1, mm (t)	40	725.0	\$ 60.20	\$ 43,645	\$ 9,051
27	Resurface with Medium Duty Binder, mm (t)	50	906.3	\$ 53.47	\$ 48,457	\$ 10,048
31	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 164
36	Spot repairs - mill and patch, % Area (m2)	10	725.0	\$ 7.50	\$ 5,438	\$ 667
38	Mill AC, mm (t)	50	906.3	\$ 7.50	\$ 6,797	\$ 742
38	Resurface with HL-1, mm (t)	40	725.0	\$ 60.20	\$ 43,645	\$ 4,768
38	Resurface with Medium Duty Binder, mm (t)	50	906.3	\$ 53.47	\$ 48,457	\$ 5,293
42	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - mill and patch, % Area (m2)	20	1450.0	\$ 7.50	\$ 10,875	\$ 941
48	Mill AC, mm (t)	120	2175.0	\$ 7.50	\$ 16,313	\$ 995
48	Resurface with HL-1, mm (t)	40	725.0	\$ 60.20	\$ 43,645	\$ 2,662
48	Resurface with HL-8, mm (t)	80	1450.0	\$ 49.42	\$ 71,659	\$ 4,371
53	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 46
59	Spot repairs - mill and patch, % Area (m2)	10	725.0	\$ 7.50	\$ 5,438	\$ 175
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
Total					\$ 468,657	\$ 89,375

Region: Ontario, North
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710.0	\$ 55.08	\$ 39,107
Binder	HL-8, mm (t)	50	887.5	\$ 49.42	\$ 43,860
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	5355.7	\$ 10.90	\$ 58,377
Subbase	Granular B, mm (t)	600	18770.9	\$ 7.97	\$ 149,604
Shoulder	HL-4, mm (t)	0	0.0	\$ 55.08	\$ -
Shoulder	HL-8, mm (t)	0	0.0	\$ 49.42	\$ -
Subgrade	Subgrade improvement, % area (m ²)		100.0	\$ 80.00	\$ 8,000
Subdrains	Includes trenching and outlets, % of occurrence (m)	0		\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 298,948

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Spot repairs - mill and patch, % Area (m2)	10	710.0	\$ 7.50	\$ 5,325	\$ 3,754
12	Resurface with HL-4, mm (t)	50	887.5	\$ 55.08	\$ 48,884	\$ 24,294
18	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 350
18	Spot repairs - mill and patch, % Area (m2)	20	1420.0	\$ 7.50	\$ 10,650	\$ 3,731
22	Mill AC, mm (t)	140	2485.0	\$ 7.50	\$ 18,638	\$ 5,172
22	Resurface with HL-4, mm (t)	40	710.0	\$ 55.08	\$ 39,107	\$ 10,852
22	Resurface with HL-8, mm (t)	50	887.5	\$ 49.42	\$ 43,860	\$ 12,171
26	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 220
30	Spot repairs - mill and patch, % Area (m2)	10	710.0	\$ 7.50	\$ 5,325	\$ 927
34	Resurface with HL-4, mm (t)	50	887.5	\$ 55.08	\$ 48,884	\$ 6,742
38	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 109
44	Mill AC, mm (t)	140	2485.0	\$ 7.50	\$ 18,638	\$ 1,435
44	Resurface with HL-4, mm (t)	40	710.0	\$ 55.08	\$ 39,107	\$ 3,012
44	Resurface with HL-8, mm (t)	50	887.5	\$ 49.42	\$ 43,860	\$ 3,378
48	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 61
52	Spot repairs - mill and patch, % Area (m2)	10	710.0	\$ 7.50	\$ 5,325	\$ 257
56	Resurface with HL-4, mm (t)	50	887.5	\$ 55.08	\$ 48,884	\$ 1,871
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 380,485	\$ 78,336

Region: Ontario, North
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	3.50
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	SMA, mm (t)	40	750	\$ 75.00	\$ 56,250
Binder	Heavy Duty Binder, mm (t)	80	1500	\$ 54.54	\$ 81,810
Extra layer	HI-8, mm (t)	200	3750	\$ 49.42	\$ 185,325
OGDL	Open Graded Drainage Layer, mm (t)	50	938	\$ -	\$ -
Base	Granular A, mm (t)	150	9021	\$ 10.90	\$ 98,325
Subbase	Granular B, mm (t)	450	15373	\$ 7.97	\$ 122,523
Shoulder	SMA, mm (t)	40	350	\$ 75.00	\$ 26,250
Shoulder	Heavy Duty Binder, mm (t)	80	700	\$ 54.54	\$ 38,178
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	50	500	\$ 20.00	\$ 10,000
Drainage	Closed drainage, % of occurrence (m)	100		\$ -	\$ -
Total					\$ 618,661

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 151
9	Rout and seal, m (m)		190	\$ 2.00	\$ 380	\$ 225
9	Spot repairs - mill and patch, % Area (m2)		370	\$ 7.50	\$ 2,775	\$ 1,643
15	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 309
15	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 3,474
19	Rout and seal, m (m)		590	\$ 2.00	\$ 1,180	\$ 390
19	Spot repairs - mill and patch, % Area (m2)		1480	\$ 7.50	\$ 11,100	\$ 3,669
21	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 2,068
21	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 20,683
24	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 44
28	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 145
28	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 1,629
31	Rout and seal, m (m)		190	\$ 2.00	\$ 380	\$ 62
34	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 970
34	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 9,697
37	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 21
41	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 68
41	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 764
46	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 482
46	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,819
49	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 10
53	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 34
53	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 379
58	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 239
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 291,858	\$ 51,974

Region: Ontario, North
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	5.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	750	\$ 60.20	\$ 45,150
Binder	Medium Duty Binder, mm (t)	60	1125	\$ 53.47	\$ 60,154
Extra layer	Medium Duty Binder, mm (t)	60	1125	\$ 53.47	\$ 60,154
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	5187	\$ 10.90	\$ 56,536
Subbase	Granular B, mm (t)	450	14477	\$ 7.97	\$ 115,382
Shoulder	HL-1, mm (t)	40	500	\$ 60.20	\$ 30,100
Shoulder	Medium Duty Binder, mm (t)	80	1000	\$ 53.47	\$ 53,470
Subgrade	Subgrade improvement, % area (m ²)		800	\$ 80.00	\$ 64,000
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100	\$ 20.00	\$ 2,000
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 486,946

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 151
9	Rout and seal, m (m)		190	\$ 2.00	\$ 380	\$ 225
9	Spot repairs - mill and patch, % Area (m2)		370	\$ 7.50	\$ 2,775	\$ 1,643
15	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 309
15	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 3,474
19	Rout and seal, m (m)		590	\$ 2.00	\$ 1,180	\$ 390
19	Spot repairs - mill and patch, % Area (m2)		1480	\$ 7.50	\$ 11,100	\$ 3,669
21	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 2,068
21	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 20,683
24	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 44
28	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 145
28	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 1,629
31	Rout and seal, m (m)		190	\$ 2.00	\$ 380	\$ 62
34	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 970
34	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 9,697
37	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 21
41	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 68
41	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 764
46	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 482
46	Resurface with SMA, mm (t)	50	938	\$ 75.00	\$ 70,313	\$ 4,819
49	Rout and seal, m (m)		90	\$ 2.00	\$ 180	\$ 10
53	Rout and seal, m (m)		370	\$ 2.00	\$ 740	\$ 34
53	Spot repairs - mill and patch, % Area (m2)		1110	\$ 7.50	\$ 8,325	\$ 379
58	Mill AC, mm (t)	50	938	\$ 7.50	\$ 7,031	\$ 239
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 284,826	\$ 51,735

Region: Ontario, North
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.25
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	725	\$ 60.20	\$ 43,645
Binder	Medium Duty Binder, mm (t)	80	1450	\$ 53.47	\$ 77,532
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	4844	\$ 10.90	\$ 52,802
Subbase	Granular B, mm (t)	450	14756	\$ 7.97	\$ 117,606
Shoulder	HL-1, mm (t)	40	600	\$ 60.20	\$ 36,120
Shoulder	Medium Duty Binder, mm (t)	80	1200	\$ 53.47	\$ 64,164
Subgrade	Subgrade improvement, % area (m ²)		800	\$ 80.00	\$ 64,000
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100	\$ 20.00	\$ 2,000
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 457,868

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.50	\$ 5,438	\$ 2,864
15	Mill AC, mm (t)	40	725	\$ 7.50	\$ 5,438	\$ 2,269
15	Resurface with HL-1, mm (t)	40	725	\$ 60.20	\$ 43,645	\$ 18,212
15	Resurface with Medium Duty Binder, mm (t)	50	906	\$ 53.47	\$ 48,457	\$ 20,219
19	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 331
19	Spot repairs - mill and patch, % Area (m2)	20	1450	\$ 7.50	\$ 10,875	\$ 3,594
27	Mill AC, mm (t)	40	725	\$ 7.50	\$ 5,438	\$ 1,128
27	Resurface with HL-1, mm (t)	50	906	\$ 60.20	\$ 54,556	\$ 11,313
31	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 164
36	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.50	\$ 5,438	\$ 667
38	Mill AC, mm (t)	50	906	\$ 7.50	\$ 6,797	\$ 742
38	Resurface with HL-1, mm (t)	40	725	\$ 60.20	\$ 43,645	\$ 4,768
38	Resurface with Medium Duty Binder, mm (t)	50	906	\$ 53.47	\$ 48,457	\$ 5,293
42	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - mill and patch, % Area (m2)	20	1450	\$ 7.50	\$ 10,875	\$ 941
48	Mill AC, mm (t)	120	2175	\$ 7.50	\$ 16,313	\$ 995
48	Resurface with HL-1, mm (t)	40	725	\$ 60.20	\$ 43,645	\$ 2,662
48	Resurface with HL-8, mm (t)	80	1450	\$ 49.42	\$ 71,659	\$ 4,371
53	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 46
59	Spot repairs - mill and patch, % Area (m2)	10	725	\$ 7.50	\$ 5,438	\$ 175
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 431,112	\$ 81,589

Region: Ontario, North
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710	\$ 55.08	\$ 39,107
Binder	HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	3772	\$ 10.90	\$ 41,112
Subbase	Granular B, mm (t)	450	11340	\$ 7.97	\$ 90,379
Shoulder	HL-4, mm (t)	0	0	\$ 55.08	\$ -
Shoulder	HL-8, mm (t)	0	0	\$ 49.42	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0	\$ 80.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	10	100	\$ 20.00	\$ 2,000
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 216,458

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.50	\$ 5,325	\$ 3,754
12	Resurface with HL-4, mm (t)	50	888	\$ 55.08	\$ 48,884	\$ 24,294
18	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 350
18	Spot repairs - mill and patch, % Area (m2)	20	1420	\$ 7.50	\$ 10,650	\$ 3,731
22	Mill AC, mm (t)	140	2485	\$ 7.50	\$ 18,638	\$ 5,172
22	Resurface with HL-4, mm (t)	40	710	\$ 55.08	\$ 39,107	\$ 10,852
22	Resurface with HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860	\$ 12,171
26	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 220
30	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.50	\$ 5,325	\$ 927
34	Resurface with HL-4, mm (t)	50	888	\$ 55.08	\$ 48,884	\$ 6,742
38	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 109
44	Mill AC, mm (t)	140	2485	\$ 7.50	\$ 18,638	\$ 1,435
44	Resurface with HL-4, mm (t)	40	710	\$ 55.08	\$ 39,107	\$ 3,012
44	Resurface with HL-8, mm (t)	50	888	\$ 49.42	\$ 43,860	\$ 3,378
48	Rout and seal, m (m)		500	\$ 2.00	\$ 1,000	\$ 61
52	Spot repairs - mill and patch, % Area (m2)	10	710	\$ 7.50	\$ 5,325	\$ 257
56	Resurface with HL-4, mm (t)	50	888	\$ 55.08	\$ 48,884	\$ 1,871
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 380,485	\$ 78,336

Region: Ontario, North
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620
Binder	HL-8, mm (t)	80	1480.0	\$ 60.00	\$ 88,800
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	6279.7	\$ 13.00	\$ 81,636
Subbase	Granular B, mm (t)	600	20408.9	\$ 8.50	\$ 173,475
Shoulder	HL-1, mm (t)	40	100.0	\$ 63.00	\$ 6,300
Shoulder	HL-8, mm (t)	50	125.0	\$ 60.00	\$ 7,500
Subgrade	Subgrade improvement, % area (m ²)		100.0	\$ 80.00	\$ 8,000
Subdrains	Includes trenching and outlets, % of occurrence (m)		800.0	\$ 20.00	\$ 16,000
Drainage	Closed drainage, % of occurrence (m)	10		\$ -	\$ -
Total					\$ 428,332

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 747
10	Spot repairs - mill and patch, % Area (m2)	10	740.0	\$ 6.00	\$ 4,440	\$ 2,479
15	Mill AC, mm (t)	40	740.0	\$ 10.00	\$ 7,400	\$ 3,088
15	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 19,453
18	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 350
25	Mill AC, mm (t)	80	1480.0	\$ 10.00	\$ 14,800	\$ 3,448
25	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 10,862
25	Resurface with HL-8, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 10,345
29	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 185
34	Spot repairs - mill and patch, % Area (m2)	20	1480.0	\$ 6.00	\$ 8,880	\$ 1,225
39	Mill AC, mm (t)	40	740.0	\$ 10.00	\$ 7,400	\$ 763
39	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 4,804
42	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 87
49	Mill AC, mm (t)	120	2220.0	\$ 10.00	\$ 22,200	\$ 1,278
49	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 2,683
49	Resurface with HL-8, mm (t)	80	1480.0	\$ 60.00	\$ 88,800	\$ 5,110
49	Add to Granular Base, mm (t)	50	925.0	\$ 13.00	\$ 12,025	\$ 692
54	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 43
59	Spot repairs - mill and patch, % Area (m2)	10	740.0	\$ 6.00	\$ 4,440	\$ 143
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
Total					\$ 406,265	\$ 67,784

Region: Ontario, North
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	5.50
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017
Binder	HL-8, mm (t)	80	1420.0	\$ 60.00	\$ 85,200
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	5971.7	\$ 13.00	\$ 77,632
Subbase	Granular B, mm (t)	500	15944.8	\$ 8.50	\$ 135,531
Shoulder	HL-4, mm (t)	40	100.0	\$ 60.59	\$ 6,059
Shoulder	HL-8, mm (t)	10	25.0	\$ 60.00	\$ 1,500
Subgrade	Subgrade improvement, % area (m ²)		100.0	\$ 80.00	\$ 8,000
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0		\$ -	\$ -
Total					\$ 356,939

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	710.0	\$ 6.00	\$ 4,260	\$ 2,244
16	Mill AC, mm (t)	40	710.0	\$ 10.00	\$ 7,100	\$ 2,795
16	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 16,934
19	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 331
26	Mill AC, mm (t)	80	1420.0	\$ 10.00	\$ 14,200	\$ 3,121
26	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 9,456
26	Resurface with HL-8, mm (t)	40	710.0	\$ 60.00	\$ 42,600	\$ 9,364
30	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)	20	1420.0	\$ 6.00	\$ 8,520	\$ 1,046
41	Mill AC, mm (t)	40	710.0	\$ 10.00	\$ 7,100	\$ 651
41	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 3,946
44	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 77
51	Mill AC, mm (t)	120	2130.0	\$ 10.00	\$ 21,300	\$ 1,091
51	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 2,203
51	Resurface with HL-8, mm (t)	80	1420.0	\$ 60.00	\$ 85,200	\$ 4,364
51	Add to Granular Base, mm (t)	50	887.5	\$ 13.00	\$ 11,538	\$ 591
56	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 38
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 378,887	\$ 59,172

Region: Ontario, North
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	250	4804.4	\$ 13.00	\$ 62,457
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 62,457

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 1,815
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 1,356
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 1,013
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 757
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 566
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 423
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 13.00	\$ 3,250	\$ 316
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 29,150	\$ 8,124

Region: Ontario, North
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620
Binder	HL-8, mm (t)	80	1480.0	\$ 60.00	\$ 88,800
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	4893.7	\$ 13.00	\$ 63,618
Subbase	Granular B, mm (t)	600	20408.9	\$ 8.50	\$ 173,475
Shoulder	HL-1, mm (t)	40	600.0	\$ 63.00	\$ 37,800
Shoulder	HL-8, mm (t)	80	1200.0	\$ 60.00	\$ 72,000
Subgrade	Subgrade improvement, % area (m ²)		100.0	\$ 80.00	\$ 8,000
Subdrains	Includes trenching and outlets, % of occurrence (m)		1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100		\$ -	\$ -
Total					\$ 510,314

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 747
10	Spot repairs - mill and patch, % Area (m2)	10	740.0	\$ 6.00	\$ 4,440	\$ 2,479
15	Mill AC, mm (t)	40	740.0	\$ 10.00	\$ 7,400	\$ 3,088
15	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 19,453
18	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 350
25	Mill AC, mm (t)	80	1480.0	\$ 10.00	\$ 14,800	\$ 3,448
25	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 10,862
25	Resurface with HL-8, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 10,345
29	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 185
34	Spot repairs - mill and patch, % Area (m2)	20	1480.0	\$ 6.00	\$ 8,880	\$ 1,225
39	Mill AC, mm (t)	40	740.0	\$ 10.00	\$ 7,400	\$ 763
39	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 4,804
42	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 87
49	Mill AC, mm (t)	120	2220.0	\$ 10.00	\$ 22,200	\$ 1,278
49	Resurface with HL-1, mm (t)	40	740.0	\$ 63.00	\$ 46,620	\$ 2,683
49	Resurface with HL-8, mm (t)	80	1480.0	\$ 60.00	\$ 88,800	\$ 5,110
49	Add to Granular Base, mm (t)	50	925.0	\$ 13.00	\$ 12,025	\$ 692
54	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 43
59	Spot repairs - mill and patch, % Area (m2)	10	740.0	\$ 6.00	\$ 4,440	\$ 143
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 406,265	\$ 67,784

Region: Ontario, North
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.10
Total width of both shoulders, m	5.50
Total width of both paved shoulders, m	5.50
Average AC thickness of the paved shoulders, mm	120

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017
Binder	HL-8, mm (t)	80	1420.0	\$ 60.00	\$ 85,200
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	4629.7	\$ 13.00	\$ 60,186
Subbase	Granular B, mm (t)	500	15944.8	\$ 8.50	\$ 135,531
Shoulder	HL-4, mm (t)	40	550.0	\$ 60.59	\$ 33,323
Shoulder	HL-8, mm (t)	80	1100.0	\$ 60.00	\$ 66,000
Subgrade	Subgrade improvement, % area (m ²)		100.0	\$ 80.00	\$ 8,000
Subdrains	Includes trenching and outlets, % of occurrence (m)		500.0	\$ 20.00	\$ 10,000
Drainage	Closed drainage, % of occurrence (m)	90		\$ -	\$ -
Total					\$ 441,258

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 747
11	Spot repairs - mill and patch, % Area (m2)	10	710.0	\$ 6.00	\$ 4,260	\$ 2,244
16	Mill AC, mm (t)	40	710.0	\$ 10.00	\$ 7,100	\$ 2,795
16	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 16,934
19	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 331
26	Mill AC, mm (t)	80	1420.0	\$ 10.00	\$ 14,200	\$ 3,121
26	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 9,456
26	Resurface with HL-8, mm (t)	40	710.0	\$ 60.00	\$ 42,600	\$ 9,364
30	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 174
36	Spot repairs - mill and patch, % Area (m2)	20	1420.0	\$ 6.00	\$ 8,520	\$ 1,046
41	Mill AC, mm (t)	40	710.0	\$ 10.00	\$ 7,100	\$ 651
41	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 3,946
44	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 77
51	Mill AC, mm (t)	120	2130.0	\$ 10.00	\$ 21,300	\$ 1,091
51	Resurface with HL-4, mm (t)	40	710.0	\$ 60.59	\$ 43,017	\$ 2,203
51	Resurface with HL-8, mm (t)	80	1420.0	\$ 60.00	\$ 85,200	\$ 4,364
51	Add to Granular Base, mm (t)	50	887.5	\$ 13.00	\$ 11,538	\$ 591
56	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 38
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 378,887	\$ 59,172

Region: Ontario, North
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	3.50
Total width of both paved shoulders, m	3.50
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	HL-4, mm (t)	50	875.0	\$ 60.59	\$ 53,015
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular A, mm (t)	150	3415.8	\$ 13.00	\$ 44,406
Subbase	Granular B, mm (t)	400	10820.3	\$ 8.50	\$ 91,973
Shoulder	HL-4, mm (t)	50	437.5	\$ 60.59	\$ 26,507
Shoulder				\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)		700.0	\$ 80.00	\$ 56,000
Subdrains	Includes trenching and outlets, % of occurrence (m)		200.0	\$ 20.00	\$ 4,000
Drainage	Closed drainage, % of occurrence (m)			\$ -	\$ -
Total					\$ 275,900

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 2,635
14	Resurface with HL-4, mm (t)	40	700.0	\$ 60.59	\$ 42,412	\$ 18,759
18	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 350
21	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 2,471
28	Mill AC, mm (t)	80	1400.0	\$ 10.00	\$ 14,000	\$ 2,739
28	Resurface with HL-4, mm (t)	40	700.0	\$ 60.59	\$ 42,412	\$ 8,297
28	Resurface with HL-8, mm (t)	40	700.0	\$ 60.00	\$ 42,000	\$ 8,216
35	Spot repairs - mill and patch, % Area (m2)	10	700.0	\$ 6.00	\$ 4,200	\$ 546
41	Resurface with HL-4, mm (t)	40	700.0	\$ 60.59	\$ 42,412	\$ 3,890
45	Rout and seal, m (m)		500.0	\$ 2.00	\$ 1,000	\$ 73
48	Spot repairs - mill and patch, % Area (m2)	20	1400.0	\$ 6.00	\$ 8,400	\$ 512
54	Mill AC, mm (t)	150	2625.0	\$ 10.00	\$ 26,250	\$ 1,129
54	Resurface with HL-4, mm (t)	40	700.0	\$ 60.59	\$ 42,412	\$ 1,824
54	Resurface with HL-8, mm (t)	80	1400.0	\$ 60.00	\$ 84,000	\$ 3,612
54	Add to Granular Base, mm (t)	50	875.0	\$ 13.00	\$ 11,375	\$ 489
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Total					\$ 374,471	\$ 55,543

MANITOBA

Region: Manitoba
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	4.50
Total width of both paved shoulders, m	2.30
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850.0	\$ 60.00	\$ 111,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	200	7007.6	\$ 10.60	\$ 74,281
Subbase	Granular Subbase, mm (t)	400	12495.8	\$ 8.60	\$ 107,464
Shoulder	Surface HMA, mm (t)	50	287.5	\$ 65.00	\$ 18,688
Shoulder	Binder HMA, mm (t)	50	287.5	\$ 60.00	\$ 17,250
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 388,807

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,964
19	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 2,302
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 718
50	Mill AC, mm (t)	80	1480.0	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 378
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Total					\$ 272,250	\$ 43,731

Region: Manitoba
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850.0	\$ 60.00	\$ 111,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5664.4	\$ 10.60	\$ 60,042
Subbase	Granular Subbase, mm (t)	250	8067.8	\$ 8.60	\$ 69,383
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 65.00	\$ 48,750
Shoulder	Binder HMA, mm (t)	50	750.0	\$ 60.00	\$ 45,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 394,300

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,964
19	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 2,302
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 718
50	Mill AC, mm (t)	80	1480.0	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 378
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Total					\$ 272,250	\$ 43,731

Region: Manitoba
Category: Provincial Rural Collector
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	1.60
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	3734.8	\$ 10.60	\$ 39,589
Subbase	Granular Subbase, mm (t)	200	5986.9	\$ 8.60	\$ 51,488
Shoulder	Surface HMA, mm (t)	50	200.0	\$ 65.00	\$ 13,000
Shoulder	Binder HMA, mm (t)	50	200.0	\$ 60.00	\$ 12,000
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 231,702

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
10	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,198
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
20	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 3,461
25	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 14,009
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
35	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 1,444
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
49	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 58
55	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 450
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Total					\$ 168,650	\$ 31,419

Region: Manitoba
Category: Provincial Rural Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100
Binder	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	200	5714.8	\$ 10.60	\$ 60,577
Subbase	Granular Subbase, mm (t)	300	9058.6	\$ 8.60	\$ 77,904
Shoulder	Seal coat, % area (m2)	100	0.0	\$ 1.50	\$ -
Shoulder	Seal coat, % area (m2)	100	0.0	\$ 1.50	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 160,681

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
10	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,198
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
20	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 3,461
25	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 14,009
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
35	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 1,444
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
49	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 58
55	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 450
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Total					\$ 168,650	\$ 31,419

Region: Manitoba
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100
Binder	Binder HMA, mm (t)	85	1572.5	\$ 60.00	\$ 94,350
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5241.3	\$ 10.60	\$ 55,558
Subbase	Granular Subbase, mm (t)	225	7185.1	\$ 8.60	\$ 61,792
Shoulder	Surface HMA, mm (t)	40	600.0	\$ 65.00	\$ 39,000
Shoulder	Binder HMA, mm (t)	60	900.0	\$ 60.00	\$ 54,000
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 372,800

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,964
19	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 2,302
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 718
50	Mill AC, mm (t)	80	1480.0	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 378
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Total					\$ 272,250	\$ 43,731

Region: Manitoba
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850.0	\$ 60.00	\$ 111,000
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	3024.4	\$ 10.60	\$ 32,058
Subbase	Granular Subbase, mm (t)	250	5572.3	\$ 8.60	\$ 47,922
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 271,105

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,964
19	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 2,302
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 718
50	Mill AC, mm (t)	80	1480.0	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Binder HMA, mm (t)	40	740.0	\$ 60.00	\$ 44,400	\$ 2,410
50	Resurface with Surface HMA, mm (t)	40	740.0	\$ 65.00	\$ 48,100	\$ 2,611
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 378
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Total					\$ 272,250	\$ 43,731

Region: Manitoba
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	1886.8	\$ 10.60	\$ 20,000
Subbase	Granular Subbase, mm (t)	200	4232.3	\$ 8.60	\$ 36,398
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 192,023

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
10	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 6,198
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
20	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 3,461
25	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 14,009
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
35	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 1,444
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
49	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 58
55	Seal coat, % area (m2)	100	7400.0	\$ 1.50	\$ 11,100	\$ 450
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Total					\$ 168,650	\$ 31,419

Region: Manitoba
Category: Provincial Urban Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	100	1886.8	\$ 10.60	\$ 20,000
Subbase	Granular Subbase, mm (t)	200	4232.3	\$ 8.60	\$ 36,398
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 192,023

Pavement Preservation Action Plan

[illegible]

Region: Manitoba
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	1.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	85	1572.5	\$ 66.00	\$ 103,785
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	6363.3	\$ 11.66	\$ 74,197
Subbase	Granular Subbase, mm (t)	225	7185.1	\$ 9.46	\$ 67,971
Shoulder	Surface HMA, mm (t)	40	100.0	\$ 71.50	\$ 7,150
Shoulder	Binder HMA, mm (t)	50	125.0	\$ 66.00	\$ 8,250
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 314,263

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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Total					\$ 247,869	\$ 44,350

Region: Manitoba
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	5454.7	\$ 11.66	\$ 63,602
Subbase	Granular Subbase, mm (t)	200	6051.7	\$ 9.46	\$ 57,249
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 234,811

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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Total					\$ 247,869	\$ 44,350

Region: Manitoba
Category: Municipal Rural Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.60
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface			0.0	\$ -	\$ -
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2785.6	\$ 11.66	\$ 32,480
Subbase			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains			0.0	\$ -	\$ -
Drainage			0.0	\$ -	\$ -
Total					\$ 32,480

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 651
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 487
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 364
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 272
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 203
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 152
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 113
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
45	Add to Granular Base, mm (t)	1	100	\$ 11.66	\$ 1,166	\$ 85
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Total					\$ 11,828	\$ 3,416

Region: Manitoba
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	85	1572.5	\$ 66.00	\$ 103,785
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2931.3	\$ 11.66	\$ 34,179
Subbase	Granular Subbase, mm (t)	225	4953.6	\$ 9.46	\$ 46,861
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 259,735

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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Total					\$ 270,762	\$ 47,823

Region: Manitoba
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2814.7	\$ 11.66	\$ 32,819
Subbase	Granular Subbase, mm (t)	200	4331.1	\$ 9.46	\$ 40,972
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 209,752

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
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				\$ -	\$ -	\$ -
Total					\$ 270,762	\$ 47,823

Region: Manitoba
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740.0	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	150	2814.7	\$ 11.66	\$ 32,819
Subbase	Granular Subbase, mm (t)	150	3297.6	\$ 9.46	\$ 31,195
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)		0.0	\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 199,974

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 967
9	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 7,227
14	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 540
20	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 302
29	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 2,253
34	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 168
38	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 106
46	Seal coat, % area (m2)	100	7400.0	\$ 1.65	\$ 12,210	\$ 837
50	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740.0	\$ 1.65	\$ 1,221	\$ 66
58	Mill AC, mm (t)	50	925.0	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,253
				\$ -	\$ -	\$ -
Total					\$ 270,762	\$ 47,823

SASKATCHEWAN

Region: Saskatchewan
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	4.50
Total width of both paved shoulders, m	2.30
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850	\$ 60.00	\$ 111,000
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5488	\$ 12.00	\$ 65,860
Subbase	Granular Subbase, mm (t)	300	9100	\$ 10.00	\$ 91,001
Shoulder	Surface HMA, mm (t)	50	288	\$ 65.00	\$ 18,688
Shoulder	Binder HMA, mm (t)	50	288	\$ 60.00	\$ 17,250
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 363,924

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 9,286
19	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 3,069
38	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 957
50	Mill AC, mm (t)	80	1480	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 504
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Total					\$ 287,050	\$ 47,185

Region: Saskatchewan
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850	\$ 60.00	\$ 111,000
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5664	\$ 12.00	\$ 67,972
Subbase	Granular Subbase, mm (t)	250	8068	\$ 10.00	\$ 80,678
Shoulder	Surface HMA, mm (t)	50	750	\$ 65.00	\$ 48,750
Shoulder	Binder HMA, mm (t)	50	750	\$ 60.00	\$ 45,000
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 413,525

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 9,286
19	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 3,069
38	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 957
50	Mill AC, mm (t)	80	1480	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 504
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Total					\$ 287,050	\$ 47,185

Region: Saskatchewan
Category: Provincial Rural Collector
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	5.00
Total width of both paved shoulders, m	1.60
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800
Binder	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	200	5363	\$ 12.00	\$ 64,354
Subbase	Granular Subbase, mm (t)	300	9059	\$ 10.00	\$ 90,586
Shoulder	Seal coat, % area (m2)	100	1600	\$ 2.00	\$ 3,200
Shoulder	Seal coat, % area (m2)	100	1600	\$ 2.00	\$ 3,200
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 190,940

Pavement Preservation Action Plan

[illegible]

Region: Saskatchewan
Category: Provincial Rural Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	6000	\$ 2.00	\$ 12,000
Binder			0	\$ -	\$ -
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2786	\$ 12.00	\$ 33,427
Subbase			0	\$ -	\$ -
Shoulder			0	\$ -	\$ -
Shoulder			0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains			0	\$ -	\$ -
Drainage			0	\$ -	\$ -
Total					\$ 45,427

Pavement Preservation Action Plan

[illegible]

Region: Saskatchewan
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850	\$ 60.00	\$ 111,000
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5664	\$ 12.00	\$ 67,972
Subbase	Granular Subbase, mm (t)	300	9771	\$ 10.00	\$ 97,710
Shoulder	Surface HMA, mm (t)	50	750	\$ 65.00	\$ 48,750
Shoulder	Binder HMA, mm (t)	50	750	\$ 60.00	\$ 45,000
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 450,557

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 9,286
19	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 3,069
38	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 957
50	Mill AC, mm (t)	80	1480	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 504
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 287,050	\$ 47,185

Region: Saskatchewan
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	100	1850	\$ 60.00	\$ 111,000
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3024	\$ 12.00	\$ 36,292
Subbase	Granular Subbase, mm (t)	250	5572	\$ 10.00	\$ 55,723
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 60.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 283,140

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 9,286
19	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 19,872
22	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 3,069
38	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 6,568
41	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 957
50	Mill AC, mm (t)	80	1480	\$ 7.50	\$ 11,100	\$ 603
50	Resurface with Surface HMA, mm (t)	40	740	\$ 65.00	\$ 48,100	\$ 2,611
50	Resurface with Binder HMA, mm (t)	40	740	\$ 60.00	\$ 44,400	\$ 2,410
53	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 504
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 287,050	\$ 47,185

Region: Saskatchewan
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925	\$ 60.00	\$ 55,500
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2846	\$ 12.00	\$ 34,157
Subbase	Granular Subbase, mm (t)	150	3316	\$ 10.00	\$ 33,163
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 60.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 202,945

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 792
4	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.00	\$ 1,480	\$ 1,172
9	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 8,760
14	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 442
14	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.00	\$ 1,480	\$ 655
20	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 18,747
24	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 247
24	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.00	\$ 1,480	\$ 366
29	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 2,731
34	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.00	\$ 1,480	\$ 204
38	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 6,568
42	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 87
42	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.00	\$ 1,480	\$ 128
46	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 1,014
50	Rout and seal, m (m)	500	500	\$ 2.00	\$ 1,000	\$ 54
50	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.00	\$ 1,480	\$ 80
58	Resurface with Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125	\$ 2,048
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				\$ -	\$ -	\$ -
Total					\$ 238,655	\$ 44,096

Region: Saskatchewan
Category: Provincial Urban Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925	\$ 60.00	\$ 55,500
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	100	1887	\$ 12.00	\$ 22,642
Subbase	Granular Subbase, mm (t)	200	4232	\$ 10.00	\$ 42,323
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 60.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 200,590

Pavement Preservation Action Plan

[illegible]

Region: Saskatchewan
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	6.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	100

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	85	1573	\$ 66.00	\$ 103,785
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	5241	\$ 13.20	\$ 69,186
Subbase	Granular Subbase, mm (t)	225	7185	\$ 11.00	\$ 79,037
Shoulder	Surface HMA, mm (t)	40	600	\$ 71.50	\$ 42,900
Shoulder	Binder HMA, mm (t)	60	900	\$ 66.00	\$ 59,400
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 407,217

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 1,290
9	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 9,636
14	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 720
20	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 402
29	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 3,005
34	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 225
38	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 141
46	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 1,116
50	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 88
58	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 2,253
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				\$ -	\$ -	\$ -
Total					\$ 262,521	\$ 48,506

Region: Saskatchewan
Category: Municipal Rural Collector
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	6000	\$ 2.20	\$ 13,200
Binder	Seal coat, % area (m2)	100	6000	\$ 2.20	\$ 13,200
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2786	\$ 13.20	\$ 36,770
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 63,170

Pavement Preservation Action Plan

[illegible]

Region: Saskatchewan
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2786	\$ 13.20	\$ 36,770
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 36,770

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 737
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 551
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 412
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 308
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 230
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 172
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 128
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
45	Add to Granular Base, mm (t)	1	100	\$ 13.20	\$ 1,320	\$ 96
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 13,060	\$ 3,723

Region: Saskatchewan
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	85	1573	\$ 66.00	\$ 103,785
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2931	\$ 13.20	\$ 38,694
Subbase	Granular Subbase, mm (t)	225	4954	\$ 11.00	\$ 54,489
Shoulder	Surface HMA, mm (t)	0	0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 66.00	\$ -
Subgrade	Subgrade Improvement, % area (m2)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 271,878

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 1,290
9	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 9,636
14	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 720
20	Mill AC, mm (t)	50	925	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 402
29	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 3,005
34	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 225
38	Mill AC, mm (t)	50	925	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 141
46	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 1,116
50	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 88
58	Mill AC, mm (t)	50	925	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 2,253
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 285,414	\$ 51,979

Region: Saskatchewan
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	740	\$ 71.50	\$ 52,910
Binder	Binder HMA, mm (t)	50	925	\$ 66.00	\$ 61,050
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	2815	\$ 13.20	\$ 37,154
Subbase	Granular Subbase, mm (t)	200	4331	\$ 11.00	\$ 47,642
Shoulder	Surface HMA, mm (t)	0	0	\$ 71.50	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 66.00	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 220,756

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
4	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 871
4	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 1,290
9	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 9,636
14	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 487
14	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 720
20	Mill AC, mm (t)	50	925	\$ 8.25	\$ 7,631	\$ 2,379
20	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 20,622
24	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 272
24	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 402
29	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 3,005
34	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 225
38	Mill AC, mm (t)	50	925	\$ 8.25	\$ 7,631	\$ 834
38	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 7,225
42	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 95
42	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 141
46	Seal coat, % area (m2)	100	7400	\$ 2.20	\$ 16,280	\$ 1,116
50	Rout and seal, m (m)	500	500	\$ 2.20	\$ 1,100	\$ 60
50	Spot repairs - spray patch, % Area (m2)	10	740	\$ 2.20	\$ 1,628	\$ 88
58	Mill AC, mm (t)	50	925	\$ 8.25	\$ 7,631	\$ 260
58	Resurface with Surface HMA, mm (t)	50	925	\$ 71.50	\$ 66,138	\$ 2,253
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Total					\$ 285,414	\$ 51,979

Region: Saskatchewan
Category: Municipal Urban Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.00
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	1750	\$ 2.20	\$ 3,850
Binder	Seal coat, % area (m2)	100	1750	\$ 2.20	\$ 3,850
Extra layer			0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3103	\$ 13.20	\$ 40,955
Subbase			0	\$ -	\$ -
Shoulder			0	\$ -	\$ -
Shoulder			0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains			0	\$ -	\$ -
Drainage			0	\$ -	\$ -
Total					\$ 48,655

Pavement Preservation Action Plan

[illegible]

ALBERTA

Region: Alberta
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	170

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719
Binder	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	350	12915	\$ 16.00	\$ 206,634
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	50	875	\$ 57.30	\$ 50,138
Shoulder	Binder HMA, mm (t)	120	2100	\$ 38.33	\$ 80,493
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 477,226

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	150

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719
Binder	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	330	12453	\$ 16.00	\$ 199,242
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	50	875	\$ 57.30	\$ 50,138
Shoulder	Binder HMA, mm (t)	100	1750	\$ 38.33	\$ 67,078
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 456,419

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	150

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 57.30	\$ 42,975
Binder	Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	10880	\$ 16.00	\$ 174,085
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	40	700	\$ 57.30	\$ 40,110
Shoulder	Binder HMA, mm (t)	110	1925	\$ 38.33	\$ 73,785
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 410,011

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	140

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 57.30	\$ 42,975
Binder	Binder HMA, mm (t)	40	750	\$ 38.33	\$ 28,748
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	280	10073	\$ 16.00	\$ 161,175
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	40	700	\$ 57.30	\$ 40,110
Shoulder	Binder HMA, mm (t)	100	1750	\$ 38.33	\$ 67,078
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 383,206

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719
Binder	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	350	13839	\$ 16.00	\$ 221,418
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	50	875	\$ 57.30	\$ 50,138
Shoulder	Binder HMA, mm (t)	60	1050	\$ 38.33	\$ 40,247
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 471,764

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	110

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719
Binder	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	330	13069	\$ 16.00	\$ 209,098
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	50	875	\$ 57.30	\$ 50,138
Shoulder	Binder HMA, mm (t)	60	1050	\$ 38.33	\$ 40,247
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 459,444

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 57.30	\$ 42,975
Binder	Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	11804	\$ 16.00	\$ 188,869
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	40	700	\$ 57.30	\$ 40,110
Shoulder	Binder HMA, mm (t)	50	875	\$ 38.33	\$ 33,539
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 404,548

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	80

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 57.30	\$ 42,975
Binder	Binder HMA, mm (t)	40	750	\$ 38.33	\$ 28,748
Extra layer	Binder HMA, mm (t)	60	1125	\$ 38.33	\$ 43,121
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	280	10997	\$ 16.00	\$ 175,959
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	40	700	\$ 57.30	\$ 40,110
Shoulder	Binder HMA, mm (t)	40	700	\$ 38.33	\$ 26,831
Subgrade				\$ -	\$ -
Subdrains	Subgrade improvement, % area (m2)	100	1000	\$ 5.00	\$ 5,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 362,743

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
14	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 332
14	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 1,834
22	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 960
22	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 14,907
28	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 541
28	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 147
36	Mill AC, mm (t)	100	1875	\$ 3.69	\$ 6,919	\$ 849
36	Resurface with Binder HMA, mm (t)	50	938	\$ 38.33	\$ 35,934	\$ 4,411
36	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 6,593
44	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 213
52	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.00	\$ 750	\$ 36
52	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 200
48	Mill AC, mm (t)	50	938	\$ 3.69	\$ 3,459	\$ 211
48	Resurface with Surface HMA, mm (t)	50	938	\$ 57.30	\$ 53,719	\$ 3,277
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				\$ -	\$ -	\$ -
Total					\$ 229,768	\$ 36,246

Region: Alberta
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	0.50
Average AC thickness of the paved shoulders, mm	90

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 63.03	\$ 47,273
Binder	Binder HMA, mm (t)	50	938	\$ 42.16	\$ 39,528
Extra layer	Binder HMA, mm (t)	60	1125	\$ 42.16	\$ 47,433
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	13091	\$ 17.60	\$ 230,407
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	40	50	\$ 63.03	\$ 3,152
Shoulder	Binder HMA, mm (t)	50	63	\$ 42.16	\$ 2,635
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 370,427

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
12	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 410
12	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 2,061
18	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 1,333
18	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 20,702
22	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 767
22	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 229
32	Mill AC, mm (t)	100	1875	\$ 4.06	\$ 7,611	\$ 1,179
32	Resurface with Binder HMA, mm (t)	50	938	\$ 42.16	\$ 39,528	\$ 6,125
32	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 9,157
38	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 302
44	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 64
44	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 319
48	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 232
48	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 3,604
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				\$ -	\$ -	\$ -
Total					\$ 251,086	\$ 48,220

Region: Alberta
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 63.03	\$ 47,273
Binder	Binder HMA, mm (t)	40	750	\$ 42.16	\$ 31,622
Extra layer	Binder HMA, mm (t)	60	1125	\$ 42.16	\$ 47,433
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	280	12229	\$ 17.60	\$ 215,238
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	0	0	\$ 63.03	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 42.16	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 341,566

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
12	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 410
12	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 2,061
18	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 1,333
18	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 20,702
22	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 767
22	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 229
32	Mill AC, mm (t)	100	1875	\$ 4.06	\$ 7,611	\$ 1,179
32	Resurface with Binder HMA, mm (t)	50	938	\$ 42.16	\$ 39,528	\$ 6,125
32	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 9,157
38	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 302
44	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 64
44	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 319
48	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 232
48	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 3,604
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				\$ -	\$ -	\$ -
Total					\$ 251,086	\$ 48,220

Region: Alberta
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5862	\$ 17.60	\$ 103,177
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains			0	\$ -	\$ -
Drainage			0	\$ -	\$ -
Total					\$ 103,177

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	250	\$ 17.60	\$ 4,400	\$ 2,457
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	250	\$ 17.60	\$ 4,400	\$ 1,836
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	250	\$ 17.60	\$ 4,400	\$ 1,372
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	250	\$ 17.60	\$ 4,400	\$ 1,025
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	250	\$ 17.60	\$ 4,400	\$ 766
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	250	\$ 17.60	\$ 4,400	\$ 572
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	250	\$ 17.60	\$ 4,400	\$ 428
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 37,200	\$ 10,334

Region: Alberta
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 63.03	\$ 47,273
Binder	Binder HMA, mm (t)	50	938	\$ 42.16	\$ 39,528
Extra layer	Binder HMA, mm (t)	60	1125	\$ 42.16	\$ 47,433
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	6260	\$ 17.60	\$ 110,181
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	0	0	\$ 63.03	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 42.16	\$ -
Subgrade	Subgrade Improvement, % area (m2)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 266,415

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
12	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 410
12	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 2,061
18	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 1,333
18	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 20,702
22	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 767
22	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 229
32	Mill AC, mm (t)	100	1875	\$ 4.06	\$ 7,611	\$ 1,179
32	Resurface with Binder HMA, mm (t)	50	938	\$ 42.16	\$ 39,528	\$ 6,125
32	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 9,157
38	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 302
44	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 64
44	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 319
48	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 232
48	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 3,604
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				\$ -	\$ -	\$ -
Total					\$ 251,086	\$ 48,220

Region: Alberta
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 63.03	\$ 47,273
Binder	Binder HMA, mm (t)	40	750	\$ 42.16	\$ 31,622
Extra layer	Binder HMA, mm (t)	60	1125	\$ 42.16	\$ 47,433
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	280	5761	\$ 17.60	\$ 101,401
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	0	0	\$ 63.03	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 42.16	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 249,729

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
12	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 410
12	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 2,061
18	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 1,333
18	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 20,702
22	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 767
22	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 229
32	Mill AC, mm (t)	100	1875	\$ 4.06	\$ 7,611	\$ 1,179
32	Resurface with Binder HMA, mm (t)	50	938	\$ 42.16	\$ 39,528	\$ 6,125
32	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 9,157
38	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 302
44	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 64
44	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 319
48	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 232
48	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 3,604
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 251,086	\$ 48,220

Region: Alberta
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	40	750	\$ 63.03	\$ 47,273
Binder	Binder HMA, mm (t)	40	750	\$ 42.16	\$ 31,622
Extra layer	Binder HMA, mm (t)	60	1125	\$ 42.16	\$ 47,433
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	250	5109	\$ 17.60	\$ 89,922
Subbase			0	\$ -	\$ -
Shoulder	Surface HMA, mm (t)	0	0	\$ 63.03	\$ -
Shoulder	Binder HMA, mm (t)	0	0	\$ 42.16	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 238,250

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 1,735
12	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 410
12	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 2,061
18	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 1,333
18	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 20,702
22	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 767
22	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 229
32	Mill AC, mm (t)	100	1875	\$ 4.06	\$ 7,611	\$ 1,179
32	Resurface with Binder HMA, mm (t)	50	938	\$ 42.16	\$ 39,528	\$ 6,125
32	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 9,157
38	Rout and seal, m (m)	500	500	\$ 5.53	\$ 2,765	\$ 302
44	Spot repairs - mill and patch, % Area (m2)	5	375	\$ 2.20	\$ 825	\$ 64
44	Rout and seal, m (m)	750	750	\$ 5.53	\$ 4,148	\$ 319
48	Mill AC, mm (t)	50	938	\$ 4.06	\$ 3,805	\$ 232
48	Resurface with Surface HMA, mm (t)	50	938	\$ 63.03	\$ 59,091	\$ 3,604
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 251,086	\$ 48,220

BRITISH COLUMBIA - COASTAL

Region: British Columbia, Coastal
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	11419.3	\$ 20.00	\$ 228,386
Subbase	Granular Subbase, mm (t)	300	10410.4	\$ 12.00	\$ 124,925
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 65.00	\$ 48,750
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 517,686

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 344,200	\$ 61,706

Region: British Columbia, Coastal
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 65.00	\$ 90,188
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	10908.9	\$ 20.00	\$ 218,179
Subbase	Granular Subbase, mm (t)	300	10354.3	\$ 12.00	\$ 124,251
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 65.00	\$ 48,750
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 481,367

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 344,200	\$ 61,706

Region: British Columbia, Coastal
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7727.3	\$ 20.00	\$ 154,547
Subbase	Granular Subbase, mm (t)	300	10123.5	\$ 12.00	\$ 121,482
Shoulder	Surface HMA, mm (t)	100	1500.0	\$ 65.00	\$ 97,500
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 433,653

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 344,200	\$ 61,706

Region: British Columbia, Coastal
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7727.3	\$ 20.00	\$ 154,547
Subbase	Granular Subbase, mm (t)	150	4851.9	\$ 12.00	\$ 58,223
Shoulder	Surface HMA, mm (t)	100	1500.0	\$ 65.00	\$ 97,500
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 370,395

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 284,075	\$ 59,883

Region: British Columbia, Coastal
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	11309.3	\$ 20.00	\$ 226,186
Subbase	Granular Subbase, mm (t)	300	10410.4	\$ 12.00	\$ 124,925
Shoulder	Surface HMA, mm (t)	50	875.0	\$ 65.00	\$ 56,875
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 543,611

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 344,200	\$ 61,706

Region: British Columbia, Coastal
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 65.00	\$ 90,188
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	10798.9	\$ 20.00	\$ 215,979
Subbase	Granular Subbase, mm (t)	300	10354.3	\$ 12.00	\$ 124,251
Shoulder	Surface HMA, mm (t)	50	875.0	\$ 65.00	\$ 56,875
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 507,292

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 344,200	\$ 61,706

Region: British Columbia, Coastal
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7617.3	\$ 20.00	\$ 152,347
Subbase	Granular Subbase, mm (t)	300	10123.5	\$ 12.00	\$ 121,482
Shoulder	Surface HMA, mm (t)	50	875.0	\$ 65.00	\$ 56,875
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 410,828

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 344,200	\$ 61,706

Region: British Columbia, Coastal
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	4152.3	\$ 20.00	\$ 83,047
Subbase	Granular Subbase, mm (t)	150	3362.8	\$ 12.00	\$ 40,354
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 65.00	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 203,526

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 3,099
15	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 1,544
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 25,088
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 1,293
30	Mill AC, mm (t)	100	1850.0	\$ 4.00	\$ 7,400	\$ 1,288
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 10,468
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 540
45	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 269
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 4,368
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 15.00	\$ 5,550	\$ 225
60	Mill AC, mm (t)	50	925.0	\$ 4.00	\$ 3,700	\$ 112
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 65.00	\$ 60,125	\$ 1,823
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 344,200	\$ 61,706

Region: British Columbia, Coastal
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 71.50	\$ 99,206
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	10908.9	\$ 22.00	\$ 239,996
Subbase	Granular Subbase, mm (t)	300	10354.3	\$ 13.20	\$ 136,676
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 71.50	\$ 53,625
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 529,504

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 3,409
15	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 1,698
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 27,597
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 1,422
30	Mill AC, mm (t)	100	1850.0	\$ 4.40	\$ 8,140	\$ 1,417
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 11,515
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 594
45	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 296
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 4,805
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 248
60	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 123
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,005
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 378,620	\$ 67,876

Region: British Columbia, Coastal
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7727.3	\$ 22.00	\$ 170,001
Subbase	Granular Subbase, mm (t)	300	10123.5	\$ 13.20	\$ 133,630
Shoulder	Surface HMA, mm (t)	100	1500.0	\$ 71.50	\$ 107,250
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 477,019

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 3,409
15	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 1,698
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 27,597
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 1,422
30	Mill AC, mm (t)	100	1850.0	\$ 4.40	\$ 8,140	\$ 1,417
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 11,515
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 594
45	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 296
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 4,805
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 248
60	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 123
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,005
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 378,620	\$ 67,876

Region: British Columbia, Coastal
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5862.4	\$ 22.00	\$ 128,972
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 128,972

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	150	\$ 22.00	\$ 3,300	\$ 1,843
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	150	\$ 22.00	\$ 3,300	\$ 1,377
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	150	\$ 22.00	\$ 3,300	\$ 1,029
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	150	\$ 22.00	\$ 3,300	\$ 769
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	150	\$ 22.00	\$ 3,300	\$ 575
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	150	\$ 22.00	\$ 3,300	\$ 429
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	150	\$ 22.00	\$ 3,300	\$ 321
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 29,500	\$ 8,220

Region: British Columbia, Coastal
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 71.50	\$ 99,206
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5793.9	\$ 22.00	\$ 127,466
Subbase	Granular Subbase, mm (t)	300	6958.2	\$ 13.20	\$ 91,848
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade Improvement, % area (m2)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 340,521

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 3,409
15	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 1,698
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 27,597
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 1,422
30	Mill AC, mm (t)	100	1850.0	\$ 4.40	\$ 8,140	\$ 1,417
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 11,515
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 594
45	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 296
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 4,805
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 248
60	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 123
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,005
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 378,620	\$ 67,876

Region: British Columbia, Coastal
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	4152.3	\$ 22.00	\$ 91,351
Subbase	Granular Subbase, mm (t)	300	6608.2	\$ 13.20	\$ 87,228
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 266,717

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 3,409
15	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 1,698
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 27,597
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 1,422
30	Mill AC, mm (t)	100	1850.0	\$ 4.40	\$ 8,140	\$ 1,417
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 11,515
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 594
45	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 296
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 4,805
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 248
60	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 123
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,005
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 378,620	\$ 67,876

Region: British Columbia, Coastal
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	4152.3	\$ 22.00	\$ 91,351
Subbase	Granular Subbase, mm (t)	150	3362.8	\$ 13.20	\$ 44,389
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 71.50	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 223,878

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 3,409
15	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 1,698
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 27,597
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 1,422
30	Mill AC, mm (t)	100	1850.0	\$ 4.40	\$ 8,140	\$ 1,417
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 11,515
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 594
45	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 296
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 4,805
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 16.50	\$ 6,105	\$ 248
60	Mill AC, mm (t)	50	925.0	\$ 4.40	\$ 4,070	\$ 123
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 71.50	\$ 66,138	\$ 2,005
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 378,620	\$ 67,876

BRITISH COLUMBIA - INTERIOR

Region: British Columbia, Interior
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	11419.3	\$ 25.00	\$ 285,482
Subbase	Granular Subbase, mm (t)	300	10410.4	\$ 20.00	\$ 208,208
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 70.00	\$ 52,500
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 666,440

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 4,132
15	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 1,930
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 27,018
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 1,724
30	Mill AC, mm (t)	100	1850.0	\$ 5.00	\$ 9,250	\$ 1,611
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 11,274
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 719
45	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 336
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 4,704
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 300
60	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 140
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 1,963
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 374,725	\$ 67,439

Region: British Columbia, Interior
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 70.00	\$ 97,125
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	10908.9	\$ 25.00	\$ 272,723
Subbase	Granular Subbase, mm (t)	300	10354.3	\$ 20.00	\$ 207,085
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 70.00	\$ 52,500
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 629,434

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 4,132
15	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 1,930
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 27,018
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 1,724
30	Mill AC, mm (t)	100	1850.0	\$ 5.00	\$ 9,250	\$ 1,611
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 11,274
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 719
45	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 336
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 4,704
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 300
60	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 140
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 1,963
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				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 374,725	\$ 67,439

Region: British Columbia, Interior
Category: Provincial Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7727.3	\$ 25.00	\$ 193,183
Subbase	Granular Subbase, mm (t)	300	10123.5	\$ 20.00	\$ 202,469
Shoulder	Surface HMA, mm (t)	100	1500.0	\$ 70.00	\$ 105,000
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 565,403

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 4,132
15	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 1,930
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 27,018
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 1,724
30	Mill AC, mm (t)	100	1850.0	\$ 5.00	\$ 9,250	\$ 1,611
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 11,274
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 719
45	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 336
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 4,704
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 300
60	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 140
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 1,963
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				\$ -	\$ -	\$ -
Total					\$ 374,725	\$ 67,439

Region: British Columbia, Interior
Category: Provincial Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	7400.0	\$ 2.00	\$ 14,800
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7455.6	\$ 25.00	\$ 186,389
Subbase	Granular Subbase, mm (t)	150	4817.9	\$ 20.00	\$ 96,358
Shoulder	Seal coat, % area (m2)	100	0.0	\$ 2.00	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0.0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0.0	\$ -	\$ -
Total					\$ 297,547

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
8	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 9,286
16	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 5,826
24	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 3,655
32	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 2,293
40	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 1,439
48	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 903
56	Seal coat, % area (m2)	100	7400	\$ 2.00	\$ 14,800	\$ 566
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Total					\$ 103,600	\$ 23,968

Region: British Columbia, Interior
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750
Binder	Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	11309.3	\$ 25.00	\$ 282,732
Subbase	Granular Subbase, mm (t)	300	10410.4	\$ 20.00	\$ 208,208
Shoulder	Surface HMA, mm (t)	50	875.0	\$ 70.00	\$ 61,250
Shoulder	Binder HMA, mm (t)	0	0.0	\$ 60.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 692,440

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 4,132
15	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 1,930
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 27,018
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 1,724
30	Mill AC, mm (t)	100	1850.0	\$ 5.00	\$ 9,250	\$ 1,611
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 11,274
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 719
45	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 336
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 4,704
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 300
60	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 140
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 1,963
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 374,725	\$ 67,439

Region: British Columbia, Interior
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 70.00	\$ 97,125
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	10798.9	\$ 25.00	\$ 269,973
Subbase	Granular Subbase, mm (t)	300	10354.3	\$ 20.00	\$ 207,085
Shoulder	Surface HMA, mm (t)	50	875.0	\$ 70.00	\$ 61,250
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 655,434

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 4,132
15	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 1,930
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 27,018
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 1,724
30	Mill AC, mm (t)	100	1850.0	\$ 5.00	\$ 9,250	\$ 1,611
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 11,274
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 719
45	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 336
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 4,704
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 300
60	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 140
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 1,963
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 374,725	\$ 67,439

Region: British Columbia, Interior
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	7.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7617.3	\$ 25.00	\$ 190,433
Subbase	Granular Subbase, mm (t)	300	10123.5	\$ 20.00	\$ 202,469
Shoulder	Surface HMA, mm (t)	50	875.0	\$ 70.00	\$ 61,250
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 538,903

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 4,132
15	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 1,930
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 27,018
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 1,724
30	Mill AC, mm (t)	100	1850.0	\$ 5.00	\$ 9,250	\$ 1,611
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 11,274
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 719
45	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 336
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 4,704
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 300
60	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 140
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 1,963
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 374,725	\$ 67,439

Region: British Columbia, Interior
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	4152.3	\$ 25.00	\$ 103,808
Subbase	Granular Subbase, mm (t)	150	3362.8	\$ 20.00	\$ 67,257
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 70.00	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 255,815

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.50	\$ 750	\$ 529
10	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 628
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 4,132
15	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 1,930
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 27,018
21	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 221
25	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 262
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 1,724
30	Mill AC, mm (t)	100	1850.0	\$ 5.00	\$ 9,250	\$ 1,611
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 11,274
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 60.00	\$ 55,500	\$ 9,663
36	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 92
40	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 109
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 719
45	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 336
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 4,704
51	Rout and seal, m (m)	500	500.0	\$ 1.50	\$ 750	\$ 38
55	Rout and seal, m (m)	750	750.0	\$ 1.50	\$ 1,125	\$ 46
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 20.00	\$ 7,400	\$ 300
60	Mill AC, mm (t)	50	925.0	\$ 5.00	\$ 4,625	\$ 140
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 70.00	\$ 64,750	\$ 1,963
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 374,725	\$ 67,439

Region: British Columbia, Interior
Category: Municipal Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 77.00	\$ 106,838
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	10908.9	\$ 27.50	\$ 299,995
Subbase	Granular Subbase, mm (t)	300	10354.3	\$ 22.00	\$ 227,794
Shoulder	Surface HMA, mm (t)	50	750.0	\$ 77.00	\$ 57,750
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 692,377

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 4,545
15	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 2,123
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 29,720
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 1,897
30	Mill AC, mm (t)	100	1850.0	\$ 5.50	\$ 10,175	\$ 1,772
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 12,401
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 791
45	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 370
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 5,175
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 330
60	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 154
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 2,159
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 412,198	\$ 74,183

Region: British Columbia, Interior
Category: Municipal Rural Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	7.00
Total width of both paved shoulders, m	6.00
Average AC thickness of the paved shoulders, mm	50

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	7727.3	\$ 27.50	\$ 212,502
Subbase	Granular Subbase, mm (t)	300	10123.5	\$ 22.00	\$ 222,716
Shoulder	Surface HMA, mm (t)	100	1500.0	\$ 77.00	\$ 115,500
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 621,943

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 4,545
15	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 2,123
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 29,720
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 1,897
30	Mill AC, mm (t)	100	1850.0	\$ 5.50	\$ 10,175	\$ 1,772
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 12,401
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 791
45	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 370
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 5,175
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 330
60	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 154
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 2,159
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 412,198	\$ 74,183

Region: British Columbia, Interior
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface			0.0	\$ -	\$ -
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL			0.0	\$ -	\$ -
Base	Granular Base, mm (t)	300	5862.4	\$ 27.50	\$ 161,215
Subbase			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade			0.0	\$ -	\$ -
Subdrains			0.0	\$ -	\$ -
Drainage			0.0	\$ -	\$ -
Total					\$ 161,215

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 112
8	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 94
10	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 84
10	Add to Granular Base, mm (t)	1	150	\$ 27.50	\$ 4,125	\$ 2,303
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 558
13	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 70
15	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 63
15	Add to Granular Base, mm (t)	1	150	\$ 27.50	\$ 4,125	\$ 1,721
18	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 53
20	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 47
20	Add to Granular Base, mm (t)	1	150	\$ 27.50	\$ 4,125	\$ 1,286
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 312
23	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 39
25	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 35
25	Add to Granular Base, mm (t)	1	150	\$ 27.50	\$ 4,125	\$ 961
28	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 29
30	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 26
30	Add to Granular Base, mm (t)	1	150	\$ 27.50	\$ 4,125	\$ 718
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 174
33	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 22
35	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 20
35	Add to Granular Base, mm (t)	1	150	\$ 27.50	\$ 4,125	\$ 537
38	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 16
40	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 15
40	Add to Granular Base, mm (t)	1	150	\$ 27.50	\$ 4,125	\$ 401
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,000.00	\$ 1,000	\$ 97
43	Granular Roadway Grading, km (km)	1	1	\$ 150.00	\$ 150	\$ 12
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total					\$ 35,275	\$ 9,806

Region: British Columbia, Interior
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1387.5	\$ 77.00	\$ 106,838
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	300	5793.9	\$ 27.50	\$ 159,333
Subbase	Granular Subbase, mm (t)	300	6958.2	\$ 22.00	\$ 153,080
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 77.00	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade Improvement, % area (m2)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 441,250

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 4,545
15	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 2,123
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 29,720
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 1,897
30	Mill AC, mm (t)	100	1850.0	\$ 5.50	\$ 10,175	\$ 1,772
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 12,401
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 791
45	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 370
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 5,175
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 330
60	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 154
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 2,159
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Total					\$ 412,198	\$ 74,183

Region: British Columbia, Interior
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	4152.3	\$ 27.50	\$ 114,189
Subbase	Granular Subbase, mm (t)	300	6608.2	\$ 22.00	\$ 145,380
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 77.00	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 352,794

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 4,545
15	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 2,123
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 29,720
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 1,897
30	Mill AC, mm (t)	100	1850.0	\$ 5.50	\$ 10,175	\$ 1,772
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 12,401
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 791
45	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 370
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 5,175
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 330
60	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 154
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 2,159
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				\$ -	\$ -	\$ -
Total					\$ 412,198	\$ 74,183

Region: British Columbia, Interior
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.40
Total width of both shoulders, m	0.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225
Binder			0.0	\$ -	\$ -
Extra layer			0.0	\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	225	4152.3	\$ 27.50	\$ 114,189
Subbase	Granular Subbase, mm (t)	150	3362.8	\$ 22.00	\$ 73,982
Shoulder	Surface HMA, mm (t)	0	0.0	\$ 77.00	\$ -
Shoulder			0.0	\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000.0	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000.0	\$ -	\$ -
Total					\$ 281,397

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
6	Rout and seal, m (m)	500	500	\$ 1.65	\$ 825	\$ 582
10	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 691
10	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 4,545
15	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 2,123
15	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 29,720
21	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 243
25	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 288
25	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 1,897
30	Mill AC, mm (t)	100	1850.0	\$ 5.50	\$ 10,175	\$ 1,772
30	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 12,401
30	Resurface with Binder HMA, mm (t)	50	925.0	\$ 66.00	\$ 61,050	\$ 10,629
36	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 101
40	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 120
40	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 791
45	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 370
45	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 5,175
51	Rout and seal, m (m)	500	500.0	\$ 1.65	\$ 825	\$ 42
55	Rout and seal, m (m)	750	750.0	\$ 1.65	\$ 1,238	\$ 50
55	Spot repairs - mill and patch, % Area (m2)	5	370	\$ 22.00	\$ 8,140	\$ 330
60	Mill AC, mm (t)	50	925.0	\$ 5.50	\$ 5,088	\$ 154
60	Resurface with Surface HMA, mm (t)	50	925.0	\$ 77.00	\$ 71,225	\$ 2,159
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Total					\$ 412,198	\$ 74,183

TERRITORIES

Region: Territories
Category: Provincial Rural Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	4.50
Total width of both paved shoulders, m	4.50
Average AC thickness of the paved shoulders, mm	75

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 65.00	\$ 91,406
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	4288	\$ 12.00	\$ 51,451
Subbase	Granular Subbase, mm (t)	300	8969	\$ 10.00	\$ 89,687
Shoulder	Surface HMA, mm (t)	75	844	\$ 65.00	\$ 54,844
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 287,388

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 9,411
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 20,141
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 3,111
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 6,657
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 970
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 511
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Total					\$ 317,125	\$ 49,230

Region: Territories
Category: Provincial Rural Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 65.00	\$ 91,406
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 12.00	\$ 42,541
Subbase	Granular Subbase, mm (t)	250	6153	\$ 10.00	\$ 61,530
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 195,478

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 9,411
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 20,141
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 3,111
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 6,657
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 970
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 511
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Total					\$ 317,125	\$ 49,230

All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 65.00	\$ 91,406
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 12.00	\$ 42,541
Subbase	Granular Subbase, mm (t)	200	4944	\$ 10.00	\$ 49,441
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder				\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 183,388

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
10	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 8,376
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
20	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 4,677
25	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 14,198
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
35	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 1,952
45	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 4,427
49	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 58
55	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 609
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Total					\$ 185,875	\$ 35,727

Region: Territories
Category: Provincial Rural Local
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3394	\$ 12.00	\$ 40,726
Subbase	Granular Subbase, mm (t)	150	3722	\$ 10.00	\$ 37,221
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder				\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.00	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	0	0	\$ 20.00	\$ -
Drainage	Closed drainage, % of occurrence (m)	0	0	\$ -	\$ -
Total					\$ 138,884

Pavement Preservation Action Plan

[illegible]

Region: Territories
Category: Provincial Urban Freeway
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 65.00	\$ 91,406
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 12.00	\$ 42,541
Subbase	Granular Subbase, mm (t)	300	7390	\$ 10.00	\$ 73,903
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder	Surface HMA, mm (t)	0		\$ 65.00	\$ -
Subgrade				\$ -	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 20.00	\$ 20,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 227,851

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 9,411
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 20,141
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 3,111
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 6,657
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 970
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 511
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Total					\$ 317,125	\$ 49,230

Region: Territories
Category: Provincial Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 65.00	\$ 91,406
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 12.00	\$ 42,541
Subbase	Granular Subbase, mm (t)	250	6153	\$ 10.00	\$ 61,530
Shoulder	Surface HMA, mm (t)	75	0	\$ 65.00	\$ -
Shoulder	Surface HMA, mm (t)	0		\$ 65.00	\$ -
Subgrade				\$ -	\$ -
Subdrains			0	\$ -	\$ -
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 195,478

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 9,411
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 20,141
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 3,111
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 6,657
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 970
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 511
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				\$ -	\$ -	\$ -
Total					\$ 317,125	\$ 49,230

Region: Territories
Category: Provincial Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 65.00	\$ 91,406
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 12.00	\$ 42,541
Subbase	Granular Subbase, mm (t)	200	4944	\$ 10.00	\$ 49,441
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains			0	\$ -	\$ -
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 183,388

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 890
8	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 9,411
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 20,141
22	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 278
27	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 3,111
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 6,657
41	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 92
47	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 970
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 46
58	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 511
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				\$ -	\$ -	\$ -
Total					\$ 317,125	\$ 49,230

Region: Territories
Category: Provincial Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	50	938	\$ 65.00	\$ 60,938
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3394	\$ 12.00	\$ 40,726
Subbase	Granular Subbase, mm (t)	150	3722	\$ 10.00	\$ 37,221
Shoulder	Surface HMA, mm (t)	0	0	\$ 65.00	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains			0	\$ -	\$ -
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 138,884

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
3	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 840
10	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 8,376
15	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 417
20	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 4,677
25	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 14,198
30	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 174
35	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 1,952
45	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 4,427
49	Rout and seal, m (m)	500	500.0	\$ 2.00	\$ 1,000	\$ 58
55	Seal coat, % area (m2)	100	7500.0	\$ 2.00	\$ 15,000	\$ 609
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Total					\$ 185,875	\$ 35,727

Region: Territories
Category: Municipal Rural Arterial
 All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 71.50	\$ 100,547
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 13.20	\$ 46,795
Subbase	Granular Subbase, mm (t)	250	6153	\$ 11.00	\$ 67,684
Shoulder	Surface HMA, mm (t)	0	0	\$ 71.50	\$ -
Shoulder				\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0	\$ -	\$ -
Total					\$ 215,025

Pavement Preservation Action Plan

[illegible]

All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Seal coat, % area (m2)	100	7500	\$ 2.20	\$ 16,500
Binder	Seal coat, % area (m2)	100	7500	\$ 2.20	\$ 16,500
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3116	\$ 13.20	\$ 41,126
Subbase	Granular Subbase, mm (t)	150	3637	\$ 11.00	\$ 40,009
Shoulder	Seal coat, % area (m2)	100	0	\$ 2.20	\$ -
Shoulder				\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)		0.0	\$ 22.00	\$ -
Drainage	Closed drainage, % of occurrence (m)		0.0	\$ -	\$ -
Total					\$ 114,135

Pavement Preservation Action Plan

[illegible]

Region: Territories
Category: Municipal Rural Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	6.00
Total width of both shoulders, m	2.00
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface				\$ -	\$ -
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	250	4804	\$ 13.20	\$ 63,418
Subbase				\$ -	\$ -
Shoulder				\$ -	\$ -
Shoulder				\$ -	\$ -
Subgrade				\$ -	\$ -
Subdrains				\$ -	\$ -
Drainage				\$ -	\$ -
Total					\$ 63,418

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
5	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 187
8	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 157
10	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 140
10	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,843
10	Granular Roadway Ditching, km (km)	1	1	\$ 1,500.00	\$ 1,500	\$ 838
13	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 117
15	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 104
15	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,377
18	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 88
20	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 78
20	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 1,029
20	Granular Roadway Ditching, km (km)	1	1	\$ 1,500.00	\$ 1,500	\$ 468
23	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 65
25	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 58
25	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 769
28	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 49
30	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 44
30	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 575
30	Granular Roadway Ditching, km (km)	1	1	\$ 1,500.00	\$ 1,500	\$ 261
33	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 37
35	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 33
35	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 429
38	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 27
40	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 24
40	Add to Granular Base, mm (t)	1	250	\$ 13.20	\$ 3,300	\$ 321
40	Granular Roadway Ditching, km (km)	1	1	\$ 1,500.00	\$ 1,500	\$ 146
43	Granular Roadway Grading, km (km)	1	1	\$ 250.00	\$ 250	\$ 20
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				\$ -	\$ -	\$ -
Total					\$ 33,100	\$ 9,282

Region: Territories
Category: Municipal Urban Arterial
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 71.50	\$ 100,547
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 13.20	\$ 46,795
Subbase	Granular Subbase, mm (t)	250	6153	\$ 11.00	\$ 67,684
Shoulder	Surface HMA, mm (t)	0	0	\$ 71.50	\$ -
Shoulder				\$ -	\$ -
Subgrade	Subgrade Improvement, % area (m2)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 237,025

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 979
8	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 10,352
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 71.50	\$ 67,031	\$ 22,155
22	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 305
27	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 3,422
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 71.50	\$ 67,031	\$ 7,322
41	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 101
47	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 1,067
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 50
58	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 562
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Total					\$ 335,713	\$ 53,440

Region: Territories
Category: Municipal Urban Collector
All quantities and costs are for one km of 2-lane highway

Geometric Design

Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 71.50	\$ 100,547
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 13.20	\$ 46,795
Subbase	Granular Subbase, mm (t)	200	4944	\$ 11.00	\$ 54,385
Shoulder	Surface HMA, mm (t)	0	0	\$ 71.50	\$ -
Shoulder				\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 223,727

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 979
8	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 10,352
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 71.50	\$ 67,031	\$ 22,155
22	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 305
27	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 3,422
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 71.50	\$ 67,031	\$ 7,322
41	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 101
47	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 1,067
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 50
58	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 562
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Total					\$ 335,713	\$ 53,440

Region: Territories
Category: Municipal Urban Local
All quantities and costs are for one km of 2-lane highway

Geometric Design

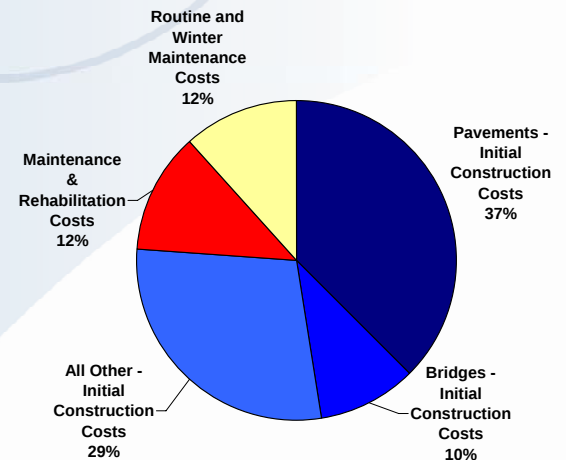
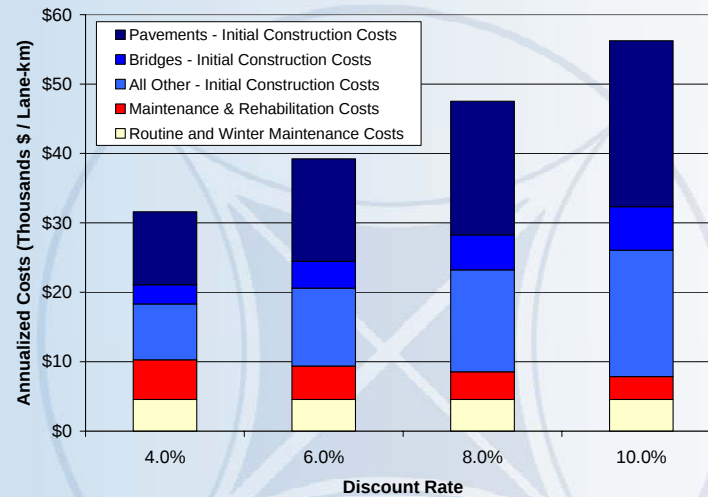
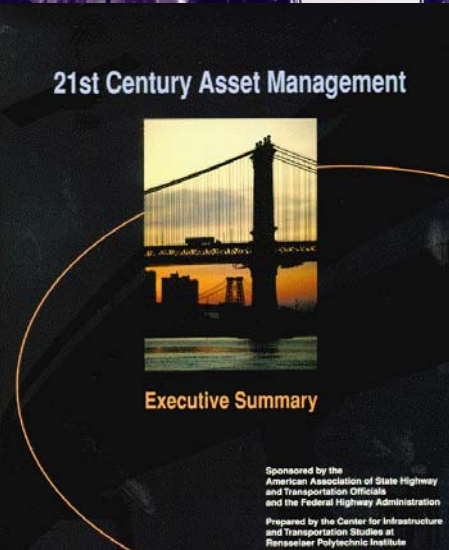
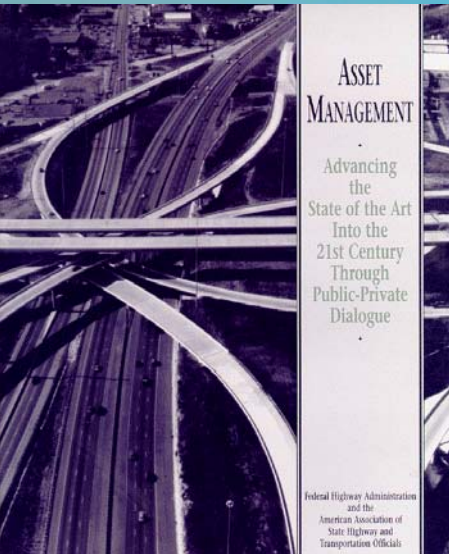
Design feature	Dimension
Width of the two traffic lanes, m	7.50
Total width of both shoulders, m	1.50
Total width of both paved shoulders, m	0.00
Average AC thickness of the paved shoulders, mm	0

Initial Pavement Structure

Pavement layer	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost
Surface	Surface HMA, mm (t)	75	1406	\$ 71.50	\$ 100,547
Binder				\$ -	\$ -
Extra layer				\$ -	\$ -
OGDL				\$ -	\$ -
Base	Granular Base, mm (t)	150	3545	\$ 13.20	\$ 46,795
Subbase	Granular Subbase, mm (t)	150	3764	\$ 11.00	\$ 41,399
Shoulder	Surface HMA, mm (t)	0	0	\$ 71.50	\$ -
Shoulder				\$ -	\$ -
Subgrade	Subgrade improvement, % area (m ²)			\$ 5.50	\$ -
Subdrains	Includes trenching and outlets, % of occurrence (m)	100	1000	\$ 22.00	\$ 22,000
Drainage	Closed drainage, % of occurrence (m)	100	1000	\$ -	\$ -
Total					\$ 210,741

Pavement Preservation Action Plan

Years after initial construction	Description of pavement layer, Amount (Quantity)	Amount	Quantity per km	Price per unit of quantity	Cost	Net present worth
2	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 979
8	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 10,352
19	Resurface with Surface HMA, mm (t)	50	937.5	\$ 71.50	\$ 67,031	\$ 22,155
22	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 305
27	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 3,422
38	Resurface with Surface HMA, mm (t)	50	937.5	\$ 71.50	\$ 67,031	\$ 7,322
41	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 101
47	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 1,067
50	Mill AC, mm (t)	100	1875.0	\$ 7.50	\$ 14,063	\$ 763
50	Resurface with Surface HMA, mm (t)	50	937.5	\$ 65.00	\$ 60,938	\$ 3,308
50	Resurface with Binder HMA, mm (t)	50	937.5	\$ 60.00	\$ 56,250	\$ 3,054
53	Rout and seal, m (m)	500	500.0	\$ 2.20	\$ 1,100	\$ 50
58	Seal coat, % area (m2)	100	7500.0	\$ 2.20	\$ 16,500	\$ 562
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Total					\$ 335,713	\$ 53,440



Submitted by:

Applied Research Associates, Inc.
5401 Eglinton Ave. W.
Suite 204
Toronto, ON M9C 5K6
CANADA
Phone: (416) 621-9555
Fax: (416) 621-4917