

## **Appendix “I” City Unit Prices**

Art5-34 BB

Arterial 5-Lane with TWLTL lane and BB

ROW	34	m	HL1	40	mm	Gran A	150	mm	Bike Lane width
Proposed Asphalt Width	22.2	m	HL3	0	mm	Gran B	600	mm	No. of Bike Lane
Existing Asphalt Width	11	m	HL4/HL8	100	mm				

REMOVALS (From Scratch)	Unit	Average Unit Price	Price per metre Reconstruction	Formula	Assumptions
Earth Excavation	cu. m.	\$21.98	\$398.92	(D7+P6*2+2)*(L6+L7)/1000*1'D1	New Construction

Average Cost of Removals for 22.2m asphalt road on a 34.0m ROW \$398.92 \$398.92

REMOVALS (Existing 2-Lane Urban Road)

Remove Existing Asphalt	sq. m.	\$6.03	\$66.33	D8*1'D18	
Remove Concrete Curb and Gutter	m.	\$9.21	\$18.42	1'2"D19	
Remove Ex Storm MH	each	\$619.85	\$6.20	1/100'D20	1 storm MH every 100 metres
Remove Ex Catch basin	each	\$449.38	\$14.98	2/60'D21	2 catchbasins every 60 metres
Remove Ex Storm Sewer	m.	\$73.92	\$62.83	1'D22*86%	85% of section has storm sewer
Remove Existing Concrete Sidewalk	sq. m.	\$11.70	\$35.10	1.5'+1'2"D24	1.5 metre wide sidewalk, both sides of the road
Tree Removal	each	\$370.00	\$49.33	2'D24/15	1 tree every 15m both sides
Stripping of Topsoil	sq. m.	\$3.48	\$66.21	(D6-D8-1-3)*1'D25	150 mm stripped

Average Cost of Removals for 11.0m 2-lane asphalt road \$319.40

CONSTRUCTION

Granular A - 150 mm	sq. m.	\$8.19	\$198.20	(D7+1'2)*D90	\$198.20	reconstruction (difference bin ex and prop asphalt width)
Granular B - 600 mm	sq. m.	\$25.14	\$608.39	(D7+1'2)*D31	\$608.39	reconstruction (difference bin ex and prop asphalt width)
Concrete Curb and Gutter	m.	\$46.15	\$92.30	(1'2)*D32	\$92.30	
Concrete Barrier Curb	m.	\$56.15		(1'2)*D33		
Concrete Centre Median	sq. m.	\$39.80	\$0.00	0'8"D34	\$0.00	1.2m raised median - 0.2m barrier curb on each side
100 mm Diameter PE Subdrain	m.	\$24.75	\$49.50	1'2"D35	\$49.50	
HL1 Asphalt - 40 mm	sq. m.	\$8.41	\$186.68	(D7)*1'D36	\$186.68	
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$17.00	\$377.45	(D7)*1'D37	\$377.45	
Tack Coat	sq. m.	\$0.29	\$6.48	(D7)*1'D38	\$6.48	
Concrete Sidewalk	sq. m.	\$50.33	\$201.32	2'2"*D39	\$201.32	2.0 metre wide sidewalk, both sides of the road
Fine Grading, Topsoil & Sod	sq. m.	\$8.66	\$58.89	(D6-D7-1-4)*1'D40	\$58.89	Width of blvd = ROW-asphalt width- curb width - sidewalk both sides
Mechanical Water Quality Device	each	\$40,250.00	\$68.73	D41/13000'D7	\$68.73	1 device for every 13000sq. m. of asphalt
600mm Diameter Storm Sewer	m.	\$451.42	\$451.42	1'D41	\$451.42	100% of section requires storm sewer
1200mm Diameter Precast Maintenance Hole	each	\$4,950.78	\$49.51	1/100'D42	\$49.51	1 mh every 100 metres
Precast Catch Basin - Single	each	\$2,463.43	\$82.11	2/60'D43	\$82.11	2 catchbasins every 60 metres
250mm Diameter Catch Basin Lead, Flexible	m.	\$341.44	\$62.60	2/60'D44'D7/2	\$62.60	2 every 60 metres x road width / 2, reconstruction (diff bin ex and prop asphalt width)
Adjust Existing MH and CB to finished grade	each	\$368.06	\$15.06	3/73.333'D45	\$15.06	73.333 metres (1 mh and 2 CB's for reconstruction)
Trees	each	\$483.63	\$64.48	2'D47/15	\$64.48	1 tree every 15 m both sides

Average Cost of Construction for 22.2m asphalt road on a 34.0m ROW \$2,573.13 \$2,573.13

MISCELLANEOUS

	L. S.	Reconstruction	New Construction
Bonds as a percentage of net tender amount	1.80%	\$59.25	\$53.50
Insurance			\$29.72
Insurance as a percentage of net tender amount	1.00%	\$32.91	
Garbage and Recyclable Collection			\$2.97
Garbage and Recyclable Collection as a % of net	0.10%	\$3.29	
Traffic Control and Signing			\$36.85
Traffic Control and Signing as a % of net	1.24%	\$40.81	
Field Office			\$3.59
Field Office as a percentage of net tender amount	0.12%	\$3.95	
Schedule of Work			\$2.99
Schedule of Work as a percentage of net tender amount	0.10%	\$3.29	
Street Lights			\$59.37
Street Lights			\$59.37
Street Lights			\$59.37
Street Light Duct Work			\$33.50
Street Light Duct Work			\$33.50
Asphalt Driveway Removal and Restoration			\$29.94
Asphalt Driveway Removal and Restoration			\$29.94

rage Cost of Miscellaneous Items for 22.2m asphalt road on a 34.0m ROW \$313.99 \$300.06

**\$3,605.44** Reconstruction per metre **\$3,272.11** New construction per metre

Cost Difference of LTL instead of centre median #REF! #REF!

2 m  
2

WITHOUT BIKE LANE(S)	Unit	Average Unit Price	Price per metre Reconstruction	Formula	New Construction
REMOVALS (From Scratch)					
Earth Excavation	cu. m.	\$21.98	\$332.98	(D7-P6*2+2)*(L6+L7)/1000*1'T1	\$332.98

Average Cost of Removals for 18.2m asphalt road on a 34.0m ROW \$332.98 \$332.98

REMOVALS (Existing 2-Lane Urban Road)

Remove Existing Asphalt	sq. m.	\$6.03	\$66.33		
Remove Concrete Curb and Gutter	m.	\$9.21	\$18.42		
Remove Ex Storm MH	each	\$619.85	\$6.20		
Remove Ex Catch basin	each	\$449.38	\$14.98		
Remove Ex Storm Sewer	m.	\$73.92	\$62.83		
Remove Existing Concrete Sidewalk	sq. m.	\$11.70	\$35.10		
Tree Removal	each	\$370.00	\$49.33		
Stripping of Topsoil	sq. m.	\$3.48	\$66.21		

Average Cost of Removals for 11.0m 2-lane asphalt road \$319.40

CONSTRUCTION

Granular A - 150 mm	sq. m.	\$8.19	\$165.44	(D7-P6*2+1'2)*T30	\$165.44
Granular B - 600 mm	sq. m.	\$25.14	\$507.83	(D7-P6*2+1'2)*T31	\$507.83
Concrete Curb and Gutter	m.	\$46.15	\$92.30		\$92.30
Concrete Barrier Curb	m.	\$56.15	\$0.00		\$0.00
Concrete Centre Median	sq. m.	\$39.80	\$0.00		\$0.00
100 mm Diameter PE Subdrain	m.	\$24.75	\$49.50		\$49.50
HL1 Asphalt - 40 mm	sq. m.	\$8.41	\$153.04	(D7-P6*2)*1'T36	\$153.04
HL 4 or HL 8 Hot Mix or Recycled - 100 mm	sq. m.	\$17.00	\$309.44	(D7-P6*2)*1'T37	\$309.44
Tack Coat	sq. m.	\$0.29	\$6.31	(D7-P6*2)*1'T38	\$6.31
Concrete Sidewalk	sq. m.	\$50.33	\$201.32		\$201.32
Fine Grading, Topsoil & Sod	sq. m.	\$8.66	\$93.54	(D6-D7-1-4)*P6*2)*1'T40	\$93.54
Mechanical Water Quality Device	each	\$40,250.00	\$66.35		\$66.35
600mm Diameter Storm Sewer	m.	\$451.42	\$451.42	1'D41	\$451.42
1200mm Diameter Precast Maintenance Hole	each	\$4,950.78	\$49.51	1/100'D42	\$49.51
Precast Catch Basin - Single	each	\$2,463.43	\$82.11	2/60'D43	\$82.11
250mm Diameter Catch Basin Lead, Flexible	m.	\$341.44	\$62.60	2/60'D44*(D7-P6*2)/2	\$62.60
Adjust Existing MH and CB to finished grade	each	\$368.06	\$15.06	3/73.333'D45	\$15.06
Trees	each	\$483.63	\$64.48		\$64.48

Average Cost of Construction for 18.2m asphalt road on a 34.0m ROW \$2,336.49 \$2,336.49

MISCELLANEOUS

	L. S.	Reconstruction	New Construction
Bonds as a percentage of net tender amount	1.80%	\$53.80	\$48.05
Insurance			\$29.89
Insurance as a percentage of net tender amount	1.00%	\$29.89	
Garbage and Recyclable Collection			\$2.67
Garbage and Recyclable Collection as a % of net	0.10%	\$2.99	
Traffic Control and Signing			\$37.06
Traffic Control and Signing as a % of net	1.24%	\$37.06	
Field Office			\$3.59
Field Office as a percentage of net tender amount	0.12%	\$3.59	
Schedule of Work			\$2.99
Schedule of Work as a percentage of net tender amount	0.10%	\$2.99	
Street Lights			\$59.37
Street Lights			\$59.37
Street Lights			\$59.37
Street Light Duct Work			\$33.50
Street Light Duct Work			\$33.50
Asphalt Driveway Removal and Restoration			\$29.94
Asphalt Driveway Removal and Restoration			\$29.94

Average Cost of Miscellaneous Items for 18.2m asphalt road on a 34.0m ROW \$346.45 \$332.53

**\$3,335.32** Reconstruction per metre **\$3,002.00** New construction per metre

Cost of Bike Lane \$270.11 \$270.11