



CONCEPTUAL COST ESTIMATE
ROUTE 20 AT SCHOOL STREET

This estimate is based on conceptual design plans prepared by VHB, Inc., dated June, 2013.
Prices were determined from the MassDOT Weighted Average Bid Prices web site.

This estimate does not consider any Right of Way acquisitions or utility pole relocations.

Assumptions

This estimate assumes the following:

Pavement

Assume Full Depth Pavement widening along Route 20 and for realignment of School Street.

Assume Mill & Overlay at all other paved locations within limits.

Sidewalk

Assume sidewalk reconstructed along east side of School Street widening.

Vertical Granite Curb

Assume new granite curb Type VB along widened portions of roadway.

Driveways

Assume impact to one HMA driveway.

Loam & Seed

Assume 4" of loam & seed grading along widened portions of roadway.

Drainage Modifications

Assume no drainage modifications required.

Prepared by: DGallant

Checked by: NCrevier

Date: 8/29/2014



Vanasse Hangen Brustlin, Inc.

**Transportation
Land Development
Environmental
Services**

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617 924 1770

CONCEPTUAL COST ESTIMATE
SUMMARY
ROUTE 20 AT SCHOOL STREET

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement	\$85.00 /SY	1,310 SY	\$111,350.00
Mill & Overlay	\$15.00 /SY	8,320 SY	\$124,800.00
HMA Driveway	\$58.00 /SY	15 SY	\$870.00
Loam and Seed	\$12.00 /SY	1,700 SY	\$20,400.00
Granite Curbing (Item 50G)	\$35.00 /FT	1,700 FT	\$59,500.00
Traffic Signal Modification	\$75,000.00 /LS	1 LS	\$75,000.00
SUBTOTAL:			\$316,920.00
Construction Staking (3%)			\$9,507.60
Police Detail (5%)			\$15,846.00
Mobilisation (3%)			\$9,507.60
Construction Traffic Management (5%)			\$15,846.00
Contingencies (20%)			\$63,384.00
SUBTOTAL:			\$431,011.20
Design and Permitting (15%)			\$64,651.68
Survey (3%)			\$12,930.34
TOTAL:			\$508,593.22
SAY:			\$508,600.00

This estimate does not consider any Right of Way acquisitions, environmental impact mitigation or utility pole relocations.



UNIT COSTS

Full Depth Pavement

	<u>Depth (in)</u>	<u>Conversion</u>	<u>Unit Cost</u>	
HMA Top Course (Item 460)	2.0	0.0560 Ton/SY*in	\$110.00 /Ton	\$12.32
HMA Binder Course (Item 460)	2.0	0.0560 Ton/SY*in	\$110.00 /Ton	\$12.32
HMA Base Course (Item 420)	4.0	0.0560 Ton/SY*in	\$110.00 /Ton	\$24.64
Dense Graded Crushed Stone (Item 402)	4.0	0.0278 Yd/in	\$55.00 /CY	\$6.12
Gravel Borrow (Item 151)	8.0	0.0278 Yd/in	\$35.00 /CY	\$7.78
Unclassified Excavation (Item 120.1)	20.0	0.0278 Yd/in	\$30.00 /CY	\$16.68
Fine Grading and Compacting (Item 170)	N/A	N/A	\$4.00 /SY	\$4.00
			per SY Total=	<u>\$83.86</u>

Full Depth Pavement COST PER SY= \$85.00

Mill & Overlay

	<u>Depth (in)</u>	<u>Conversion</u>	<u>Unit Cost</u>	
Pavement Milling (Item 129)	4.0	0.0278 Yd/in	\$18.00 /CY	\$2.00
HMA Top Course (Item 460)	2.0	0.0560 Ton/SY*in	\$110.00 /Ton	\$12.32
			per SY Total=	<u>\$14.32</u>

Mill & Overlay COST PER SY= \$15.00

Loam Borrow and Seed

	<u>Depth (in)</u>	<u>Conversion</u>	<u>Unit Cost</u>	
Loam Borrow (Item 751)	4.0	0.0278 Yd/in	\$45.00 /CY	\$5.00
Seed (Item 765)	N/A	N/A	\$2.00 /SY	\$2.00
Unclassified Excavation (Item 120.1)	4.0	0.0278 Yd/in	\$30.00 /CY	\$3.34
			per SY Total=	<u>\$10.34</u>

Loam Borrow and Seed COST PER SY= \$12.00



UNIT COSTS

HMA Drive	NCrevier		Unit Cost	
	<u>41880.00</u>	<u>Conversion</u>		
HMA Top Course (Item 703)	3.5	0.0560 Ton/SY*in	\$180.00 /Ton	\$35.28
Gravel Borrow (Item 151)	8.0	0.0278 Yd/in	\$35.00 /CY	\$7.78
Unclassified Excavation (Item 120.1)	11.5	0.0278 Yd/in	\$30.00 /CY	\$9.59
Fine Grading and Compacting (Item 170)	N/A	N/A	\$4.00 /SY	\$4.00
			per SY Total=	<u>\$56.66</u>
			<u>HMA Drive COST PER SY=</u>	<u>\$58.00</u>