

**Vermont Agency of Transportation**

WORCESTER BF 0241(57)

Estimate FINAL - Engineer's Estimate - B89

Phase: FINAL	Designed By:
Estimate Date: 09 June, 2022	Reviewed By: Jon Olin
Specification: Standard Specifications for Construction	Approved By:
Region: NORTHWEST	Work Type: BRIDGE CONSTRUCTION
Town: WORCESTER	Highway Type: MAJOR COLLECTOR
Advertising Season:	Urban/Rural: RURAL
Description: EXISTING CULVERT REPLACEMENT WITH STEEL GIRDER BRIDGE WITH ASSOCIATED ROADWAY IMPROVEMENTS.	

Category

**1011 - ROADWAY**

Item Number	Description	Supplemental Description	Quantity	Unit	Unit Price	Amount
201.10	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	(BRIDGE 89)	1.00	LS	\$10,000.000	\$10,000.00
203.15	COMMON EXCAVATION		1,440.00	CY	\$12.194	\$17,559.36
203.16	SOLID ROCK EXCAVATION		10.00	CY	\$80.409	\$804.09
203.30	EARTH BORROW		100.00	CY	\$5.108	\$510.80
204.20	TRENCH EXCAVATION OF EARTH		150.00	CY	\$21.852	\$3,277.80
204.21	TRENCH EXCAVATION OF ROCK		10.00	CY	\$144.545	\$1,445.45
204.22	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)		1.00	CY	\$75.000	\$75.00
210.10	COARSE-MILLING, BITUMINOUS PAVEMENT		1,050.00	SY	\$6.511	\$6,836.55
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE		1,150.00	CY	\$35.790	\$41,158.50
401.10	AGGREGATE SURFACE COURSE		60.00	CY	\$47.796	\$2,867.76
404.65	EMULSIFIED ASPHALT		15.00	CWT	\$47.996	\$719.94
406.50	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)		1.00	LU	\$1.000	\$1.00
601.0915	18" CPEP		35.00	LF	\$52.752	\$1,846.32
601.7015	18" CPEPES		2.00	EACH	\$493.732	\$987.46
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE		2.00	EACH	\$5,509.669	\$11,019.34
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I		10.00	HR	\$121.663	\$1,216.63
613.10	STONE FILL, TYPE I		30.00	CY	\$61.362	\$1,840.86
616.28	CAST-IN-PLACE CONCRETE CURB, TYPE B		160.00	LF	\$37.710	\$6,033.60
616.305	BITUMINOUS CONCRETE CURB, TYPE A		200.00	LF	\$13.392	\$2,678.40
619.17	YIELDING MARKER POSTS		2.00	EACH	\$50.055	\$100.11
621.20	STEEL BEAM GUARDRAIL, GALVANIZED	(MIDWEST GUARDRAIL SYSTEM)	425.00	LF	\$20.722	\$8,806.85
621.51	MANUFACTURED TERMINAL SECTION, TANGENT		2.00	EACH	\$2,369.331	\$4,738.66

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621.72	GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM		4.00	EACH	\$6,000.000	\$24,000.00
621.80	REMOVAL AND DISPOSAL OF GUARDRAIL		720.00	LF	\$1.171	\$843.12
630.10	UNIFORMED TRAFFIC OFFICERS		115.00	HR	\$67.474	\$7,759.51
630.15	FLAGGERS		560.00	HR	\$34.837	\$19,508.72
635.11	MOBILIZATION/DEMOBILIZATION	(BRIDGE 89)	1.00	LS	\$240,000.000	\$240,000.00
641.11	TRAFFIC CONTROL, ALL-INCLUSIVE	(BRIDGE 89)	1.00	LS	\$14,200.000	\$14,200.00
641.15	PORTABLE CHANGEABLE MESSAGE SIGN		2.00	EACH	\$3,944.194	\$7,888.39
646.201	4 INCH WHITE LINE, WATERBORNE PAINT		1,250.00	LF	\$0.667	\$833.75
646.2111	4 INCH YELLOW LINE, WATERBORNE PAINT		1,250.00	LF	\$0.703	\$878.75
675.50	REMOVING SIGNS		4.00	EACH	\$16.293	\$65.17
675.60	RESETTING SIGNS		4.00	EACH	\$28.191	\$112.76
676.10	DELINEATOR WITH STEEL POST		2.00	EACH	\$80.153	\$160.31
676.12	REMOVAL OF EXISTING DELINEATOR AND POST		2.00	EACH	\$2.332	\$4.66
678.40	TEMPORARY TRAFFIC SIGNAL SYSTEM		1.00	EACH	\$35,000.000	\$35,000.00
900.680	SPECIAL PROVISION	(BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	400.00	TON	\$107.346	\$42,938.40
					Category total:	\$518,718.03

Category  
**1031 - TRAINING**

Item Number	Description	Supplemental Description	Quantity	Unit	Unit Price	Amount
634.10	EMPLOYEE TRAINEESHIP		208.00	HR	\$17.411	\$3,621.49
					Category total:	\$3,621.49

Category  
**1051 - EROSION CONTROL**

Item Number	Description	Supplemental Description	Quantity	Unit	Unit Price	Amount
651.15	SEED		30.00	LB	\$9.821	\$294.63
651.18	FERTILIZER		150.00	LB	\$3.558	\$533.70
651.20	AGRICULTURAL LIMESTONE		1.00	TON	\$676.976	\$676.98
651.35	TOPSOIL		50.00	CY	\$39.242	\$1,962.10
651.40	GRUBBING MATERIAL	(12 INCH)	1,080.00	SY	\$3.500	\$3,780.00
653.01	EPSC PLAN	(BRIDGE 89)	1.00	LS	\$3,600.000	\$3,600.00
653.02	MONITORING EPSC PLAN		102.00	HR	\$35.410	\$3,611.82
653.03	MAINTENANCE OF EPSC PLAN (N.A.B.I.)		1.00	LU	\$4,000.000	\$4,000.00
653.10	HAY MULCH		1.00	TON	\$700.402	\$700.40
653.20	ROLLED EROSION CONTROL PRODUCT, TYPE I		1,300.00	SY	\$1.862	\$2,420.60

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653.35	STABILIZED CONSTRUCTION ENTRANCE	35.00	CY	\$41.746	\$1,461.11
653.45	FILTER BAG	2.00	EACH	\$299.907	\$599.81
653.475	SILT FENCE, TYPE I	150.00	LF	\$3.541	\$531.15
653.476	SILT FENCE, TYPE II	510.00	LF	\$4.881	\$2,489.31
653.50	BARRIER FENCE	820.00	LF	\$1.914	\$1,569.48
653.55	PROJECT DEMARCATION FENCE	280.00	LF	\$1.144	\$320.32
653.60	EROSION LOG	110.00	LF	\$6.402	\$704.22
Category total:					\$29,255.63

Category  
**1211 - BRIDGE NO. 1**

Item Number	Description	Supplemental Description	Quantity	Unit	Unit Price	Amount
203.16	SOLID ROCK EXCAVATION		50.00	CY	\$80.409	\$4,020.45
203.27	UNCLASSIFIED CHANNEL EXCAVATION		3,810.00	CY	\$13.449	\$51,240.69
204.30	GRANULAR BACKFILL FOR STRUCTURES		1,500.00	CY	\$35.446	\$53,169.00
208.30	COFFERDAM EXCAVATION, EARTH		2,720.00	CY	\$23.000	\$62,560.00
208.35	COFFERDAM EXCAVATION, ROCK		280.00	CY	\$130.000	\$36,400.00
208.40	COFFERDAM	(BRIDGE 89 - ABUTMENT 1)	1.00	LS	\$140,000.000	\$140,000.00
208.40	COFFERDAM	(BRIDGE 89 - ABUTMENT 2)	1.00	LS	\$180,000.000	\$180,000.00
501.37	HIGH PERFORMANCE CONCRETE, CLASS PCD		120.00	CY	\$810.000	\$97,200.00
501.38	HIGH PERFORMANCE CONCRETE, CLASS PCS		690.00	CY	\$1,100.000	\$759,000.00
506.50	STRUCTURAL STEEL, ROLLED BEAM		107,000.00	LB	\$2.338	\$250,166.00
507.11	REINFORCING STEEL, LEVEL I	(EPOXY COATED)	11,000.00	LB	\$1.579	\$17,369.00
507.11	REINFORCING STEEL, LEVEL I	(UNCOATED)	124,000.00	LB	\$1.500	\$186,000.00
507.12	REINFORCING STEEL, LEVEL II	(CONTINUOUSLY GALVANIZED)	27,000.00	LB	\$1.800	\$48,600.00
508.15	SHEAR CONNECTORS	(XXXX - 7/8" X 7")	1.00	LS	\$7,000.000	\$7,000.00
514.10	WATER REPELLENT, SILANE		60.00	GAL	\$62.642	\$3,758.52
516.11	BRIDGE EXPANSION JOINT, VERMONT		59.00	LF	\$600.000	\$35,400.00
525.33	BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM		294.00	LF	\$140.000	\$41,160.00
528.10	ONE-WAY TEMPORARY BRIDGE	(BRIDGE 89, 2400 SF - EST.)	1.00	LS	\$400,000.000	\$400,000.00
529.15	REMOVAL OF STRUCTURE	(15'-0" X 20'-0" X 172'-0" CGMPP)	1.00	EACH	\$20,000.000	\$20,000.00
531.17	BEARING DEVICE ASSEMBLY, STEEL REINFORCED ELASTOMERIC PAD		10.00	EACH	\$1,400.000	\$14,000.00
541.30	CONCRETE, CLASS C		170.00	CY	\$452.352	\$76,899.84
613.06	STONE FILL, STREAM BED MATERIAL	(E-STONE, TYPE IV)	640.00	CY	\$55.000	\$35,200.00
613.13	STONE FILL, TYPE IV		1,650.00	CY	\$46.752	\$77,140.80

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649.31	GEOTEXTILE UNDER STONE FILL		1,790.00	SY	\$1.663		\$2,976.77
900.645	SPECIAL PROVISION	(TEMPORARY RELOCATION OF STREAM, BRIDGE 89)	1.00	LS	\$50,000.000		\$50,000.00
						Category total:	\$2,649,261.07

Category  
**1999 - FULL C.E. ITEMS**

Item Number	Description	Supplemental Description	Quantity	Unit	Unit Price	Amount	
631.10	FIELD OFFICE, ENGINEERS		1.00	LS	\$14,400.000	\$14,400.00	
631.16	TESTING EQUIPMENT, CONCRETE		1.00	LS	\$1,000.000	\$1,000.00	
631.17	TESTING EQUIPMENT, BITUMINOUS		1.00	LS	\$700.000	\$700.00	
631.26	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)		1,200.00	DL	\$1.000	\$1,200.00	
						Category total:	\$17,300.00

Category  
**3041 - LANDSCAPING**

Item Number	Description	Supplemental Description	Quantity	Unit	Unit Price	Amount	
651.16	WILDFLOWER SEED		3.00	LB	\$130.000	\$390.00	
656.20	EVERGREEN TREES	(PINUS STROBUS)(3'-4' HT.)(B&B)	3.00	EACH	\$340.000	\$1,020.00	
656.20	EVERGREEN TREES	(TSUGA CANADENSIS)(3'- 4' HT.)(B&B)	2.00	EACH	\$340.000	\$680.00	
656.30	DECIDUOUS TREES	(ACER RUBRUM)(2" - 2.5" CAL.)(B&B)	2.00	EACH	\$770.000	\$1,540.00	
656.30	DECIDUOUS TREES	(ALNUS RUGOSA)(3'-4' HT.) (CONT.)	2.00	EACH	\$770.000	\$1,540.00	
656.30	DECIDUOUS TREES	(FAGUS GRANDIFOLIA)(2"- 2.5" CAL.)(B&B)	1.00	EACH	\$770.000	\$770.00	
656.35	DECIDUOUS SHRUBS	(ARONIA MELANOCARPA 'VIKING')(3 GALLON) (CONT.)	8.00	EACH	\$80.000	\$640.00	
656.35	DECIDUOUS SHRUBS	(CORNUS RACEMOSA)(3 GALLON)(CONT.)	2.00	EACH	\$80.000	\$160.00	
656.65	LANDSCAPE WATERING		20.00	MGAL	\$60.000	\$1,200.00	
656.80	LANDSCAPE BACKFILL, TRUCK MEASUREMENT		228.00	CY	\$80.000	\$18,240.00	
900.620	SPECIAL PROVISION	(TUBELING)(CORNUS AMOMUM)(PLUG)	20.00	EACH	\$13.000	\$260.00	
900.620	SPECIAL PROVISION	(TUBELING)(CORNUS SERICEA)(PLUG)	20.00	EACH	\$13.000	\$260.00	
900.620	SPECIAL PROVISION	(TUBELING)(PICEA GLAUCA)(PLUG)	20.00	EACH	\$13.000	\$260.00	
900.620	SPECIAL PROVISION	(TUBELING)(PINUS STROBUS)(PLUG)	20.00	EACH	\$13.000	\$260.00	
						Category total:	\$27,220.00

**Grand Total:** \$3,245,376.22