

ORDER OF MAGNITUDE OPINION OF CONSTRUCTION COST	DATE PREPARED:	4/14/2021	
PROJECT: Brainerd Street Culvert Replacement	BASIS:		
LOCATION: South Hadley, MA	ESTIMATOR:	RLW	CHECKED BY: DD
DESCRIPTION: Road-Stream Crossing Replacement	JOB NO.	20170390.V20	

This is an order of magnitude cost estimate, as defined by the American Association of Cost Engineers, that is expected to be within -30 to +50 percent of the actual project cost. Fuss & O'Neill has no control over the cost of labor, materials, equipment or services furnished by others or market conditions. Fuss & O'Neill's opinion of probable Total Project Costs and Construction Cost are made on the basis of Fuss & O'Neill's experience and qualifications and represent Fuss & O'Neill's best judgment as an experienced and qualified professional engineer, familiar with the construction industry. Fuss & O'Neill cannot and does not guarantee that proposals, bids or actual Total Project or Construction Costs will not vary from opinions of probable cost prepared by Fuss & O'Neill.

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
EROSION AND SEDIMENT CONTROL	LS	1	\$10,000.00	\$10,000.00
REMOVE & DISPOSE OF ASPHALT PAVEMENT (assume 3") and base (assume 12")	SY	500	\$20.00	\$10,000.00
EARTH EXCAVATION (10 ft high embankment)	CY	1126	\$32.00	\$36,029.63
PAVING (AGGREGATE BASE, HOT MIX ASPHALT, AND TACK COAT)	SY	500	\$45.00	\$22,500.00
PRECAST CONCRETE 3-SIDED STRUCTURE (12 FT SPAN)	LF	95	\$4,000.00	\$380,000.00
CONCRETE FOOTINGS	CY	37	\$1,200.00	\$44,333.33
TEMPORARY SHORING AND EXCAVATION	LS	1	\$100,000.00	\$100,000.00
BRIDGE RAIL AND GUARDRAIL	LF	275	\$40.00	\$11,000.00
WATER CONTROL	LS	1	\$25,000.00	\$25,000.00
EXCAVATE AND REGRADE CHANNEL	SY	556	\$10.00	\$5,555.56
GRADING OF STREAMBANK	SY	667	\$10.00	\$6,666.67
STREAMBANK STABILIZATION AND RESTORATION	SY	667	\$7.00	\$4,666.67
			SUBTOTAL	\$655,751.85
CONTRACTOR MOBILIZATION AND DEMOBILIZATION, TESTING, BONDS/INSURANCE	LS	10%	1	\$65,575.19
			CONSTRUCTION SUBTOTAL	\$721,327.04
DESIGN	LS		\$70,000.00	\$70,000.00
PERMITTING	LS		\$50,000.00	\$50,000.00
CONSTRUCTION ADMINISTRATION	LS		\$50,000.00	\$50,000.00
			SUBTOTAL	\$891,327.04
			20% Contingency	\$178,265.41
			TOTAL	\$891,327.04
			(-30%)	\$623,928.93
			(+50%)	\$1,336,990.56

ORDER OF MAGNITUDE OPINION OF CONSTRUCTION COST	DATE PREPARED:	4/14/2021	
PROJECT: Cedar Ridge, Lathrop Street, and Brainerd Street Culvert Replacements	BASIS:		
LOCATION: South Hadley, MA	ESTIMATOR:	RLW	CHECKED BY: DD
DESCRIPTION: Road-Stream Crossing Replacement	JOB NO.	20170390.V20	

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
EROSION AND SEDIMENT CONTROL	LS	1	\$10,000.00	\$10,000.00
REMOVE & DISPOSE OF ASPHALT PAVEMENT (assume 3") and base (assume 12")	SY	1276	\$20.00	\$25,511.11
EARTH EXCAVATION (4 ft high embankment on average)	CY	1701	\$32.00	\$54,423.70
PAVING (AGGREGATE BASE, HOT MIX ASPHALT, AND TACK COAT	SY	1276	\$45.00	\$57,400.00
PRECAST CONCRETE 3-SIDED STRUCTURE (9 FT SPANS)	LF	200	\$3,000.00	\$600,000.00
CONCRETE FOOTINGS	CY	78	\$600.00	\$46,666.67
TEMPORARY SHORING AND EXCAVATION	LS	1	\$75,000.00	\$75,000.00
BRIDGE RAIL AND GUARDRAIL	LF	375	\$40.00	\$15,000.00
WATER CONTROL	LS	1	\$50,000.00	\$50,000.00
EXCAVATE AND REGRADE CHANNEL	SY	797	\$10.00	\$7,966.67
GRADING OF STREAMBANK	SY	1644	\$10.00	\$16,444.44
STREAMBANK STABILIZATION AND RESTORATION	SY	1644	\$7.00	\$11,511.11
			SUBTOTAL	\$969,923.70
CONTRACTOR MOBILIZATION AND DEMOBILIZATION, TESTING, BONDS/INSURANCE	LS	10%	1	\$96,992.37
			CONSTRUCTION SUBTOTAL	\$1,066,916.07
DESIGN	LS		\$50,000.00	\$50,000.00
PERMITTING	LS		\$50,000.00	\$50,000.00
CONSTRUCTION ADMINISTRATION	LS		\$75,000.00	\$75,000.00
			SUBTOTAL	\$1,241,916.07
			20% Contingency	\$248,383.21
			TOTAL	\$1,241,916.07
			(-30%)	\$869,341.25
			(+50%)	\$1,862,874.11

ORDER OF MAGNITUDE OPINION OF CONSTRUCTION COST	DATE PREPARED:	4/14/2021	
PROJECT: Westbrook Road Culvert Replacement	BASIS:		
LOCATION: South Hadley, MA	ESTIMATOR:	RLW	CHECKED BY: DD
DESCRIPTION: Road-Stream Crossing Replacement	JOB NO.	20170390.V20	

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	
EROSION AND SEDIMENT CONTROL	LS	1	\$10,000.00	\$10,000.00	
REMOVE & DISPOSE OF ASPHALT PAVEMENT (assume 3") and base (assume 12")	SY	296	\$20.00	\$5,911.11	
EARTH EXCAVATION (18 ft high embankment)	CY	887	\$32.00	\$28,373.33	
PAVING (AGGREGATE BASE, HOT MIX ASPHALT, AND TACK COAT	SY	296	\$45.00	\$13,300.00	
PRECAST CONCRETE 3-SIDED STRUCTURE (8 FT SPAN)	LF	45	\$4,000.00	\$180,000.00	
CONCRETE FOOTINGS	CY	18	\$1,200.00	\$21,000.00	
TEMPORARY SHORING AND EXCAVATION	LS	1	\$50,000.00	\$50,000.00	
BRIDGE RAIL AND GUARDRAIL	LF	100	\$40.00	\$4,000.00	
WATER CONTROL	LS	1	\$50,000.00	\$50,000.00	
EXCAVATE AND REGRADE CHANNEL	SY	208	\$10.00	\$2,077.78	
GRADING OF STREAMBANK	SY	422	\$10.00	\$4,222.22	
STREAMBANK STABILIZATION AND RESTORATION	SY	422	\$7.00	\$2,955.56	
			SUBTOTAL	\$371,840.00	
CONTRACTOR MOBILIZATION AND DEMOBILIZATION, TESTING, BONDS/INSURANCE	LS		10%	1	\$37,184.00
			CONSTRUCTION SUBTOTAL	\$409,024.00	
DESIGN	LS		\$50,000.00	\$50,000.00	
PERMITTING	LS		\$50,000.00	\$50,000.00	
CONSTRUCTION ADMINISTRATION	LS		\$50,000.00	\$50,000.00	
			SUBTOTAL	\$559,024.00	
			20% Contingency	\$111,804.80	
			TOTAL	\$559,024.00	
			(-30%)	\$391,316.80	
			(+50%)	\$838,536.00	

ORDER OF MAGNITUDE OPINION OF CONSTRUCTION COST	DATE PREPARED:	4/14/2021	
PROJECT: Pearl Street Culvert Replacement	BASIS:		
LOCATION: South Hadley, MA	ESTIMATOR:	RLW	CHECKED BY: DD
DESCRIPTION: Road-Stream Crossing Replacement	JOB NO.	20170390.V20	

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ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
EROSION AND SEDIMENT CONTROL	LS	1	\$20,000.00	\$20,000.00
REMOVE & DISPOSE OF ASPHALT PAVEMENT (assume 3") and base (assume 12")	SY	339	\$20.00	\$6,777.78
EARTH EXCAVATION (9 ft high embankment)	CY	508	\$32.00	\$16,266.67
PAVING (AGGREGATE BASE, HOT MIX ASPHALT, AND TACK COAT	SY	339	\$45.00	\$15,250.00
PRECAST CONCRETE 3-SIDED STRUCTURE (24 FT SPAN) AND FOOTINGS	LF	30	\$11,000.00	\$330,000.00
CONCRETE FOOTINGS	CY	0	\$1,200.00	\$0.00
TEMPORARY SHORING AND EXCAVATION	LS	1	\$100,000.00	\$100,000.00
BRIDGE RAIL AND GUARDRAIL	LF	104	\$40.00	\$4,160.00
WATER CONTROL	LS	1	\$100,000.00	\$100,000.00
EXCAVATE AND REGRADE CHANNEL	SY	667	\$10.00	\$6,666.67
GRADING OF STREAMBANK	SY	1011	\$10.00	\$10,111.11
STREAMBANK STABILIZATION AND RESTORATION	SY	1011	\$7.00	\$7,077.78
			SUBTOTAL	\$616,310.00
CONTRACTOR MOBILIZATION AND DEMOBILIZATION, TESTING, BONDS/INSURANCE	LS	10%	1	\$61,631.00
			CONSTRUCTION SUBTOTAL	\$677,941.00
DESIGN	LS		\$100,000.00	\$100,000.00
PERMITTING	LS		\$50,000.00	\$50,000.00
CONSTRUCTION ADMINISTRATION	LS		\$75,000.00	\$75,000.00
			SUBTOTAL	\$902,941.00
			20% Contingency	\$180,588.20
			TOTAL	\$902,941.00
			(-30%)	\$632,058.70
			(+50%)	\$1,354,411.50