

FUSS & O'NEILL, INC.
1550 MAIN STREET, SUITE 400
SPRINGFIELD, MASSACHUSETTS

OPINION OF CONSTRUCTION COST		DATE PREPARED :	2/5/2026		
Type: Bid					
PROJECT : Little River Dam Removal and River Restoration		Basis: RSMMeans, product manufacturers, and bid results from recent construction projects.			
LOCATION : Haverhill, Massachusetts					
DESCRIPTION: Dam Removal and River Improvements					
DRAWING NO. : 20170390.U40		ESTIMATOR : GW/DW/CN/JL		CHECKED BY : CC/JB	
<p>OPINION OF CONSTRUCTION COST - BID PHASE: An opinion of cost made based on detailed engineering data and comparison with similar projects. Industry cost estimating guidance by AACE suggests an expected accuracy range of within plus 15% or minus 10% for costs developed at bid phase (i.e., 65% to 100% completion). Because Fuss & O'Neill has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor(s)' methods of determining prices, or over competitive bidding or market conditions, Fuss & O'Neill's opinion of probable Total Project Costs and Construction Costs 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. If prior to the bidding or negotiating phase the Owner wishes greater assurance as to Total Project or Construction Costs, the Owner shall employ an independent cost estimator.</p>					
ITEM NO.	ITEM	UNIT MEAS.	NO. UNITS	PER UNIT	TOTAL COST
SITE ACCESS AND SITE PREPARATION WORK					
1	Mobilization	L.S.	1	\$192,580.00	\$192,580.00
2	General Requirements	L.S.	1	\$320,970.00	\$320,970.00
3	Demobilization	L.S.	1	\$192,580.00	\$192,580.00
4	Traffic Control and Protection of Public	L.S.	1	\$50,000.00	\$50,000.00
5	Site Clearing	AC.	3	\$20,000.00	\$60,000.00
WATER CONTROL & SEDIMENT AND EROSION CONTROL MEASURES					
6	Temporary Erosion and Sediment Control	L.S.	1	\$75,000.00	\$75,000.00
7	Control of Water	L.S.	1	\$500,000.00	\$500,000.00
DEMOLITION					
8	Demolition	L.S.	1	\$150,000.00	\$150,000.00
EARTHWORK AND BIOENGINEERING					
9	Excavation and Off-site Disposal of Contaminated Soils as Hazardous Waste	C.Y.	1,160	\$315.00	\$365,400.00
10	Excavation and Off-site Disposal of Contaminated Soils as Regulated Waste	C.Y.	1,920	\$90.00	\$172,800.00
11	Excavation and Reuse of Satisfactory Soils	C.Y.	5,750	\$65.00	\$373,750.00
12	Excavation and Off-site Disposal of Other Soils	C.Y.	11,130	\$90.00	\$1,001,700.00
13	Riprap Type A	TON	650	\$75.00	\$48,750.00
14	Riprap Type B	TON	1,612	\$75.00	\$120,900.00
15	Riprap Type C	TON	179	\$75.00	\$13,425.00
16	Riprap Type D	TON	271	\$75.00	\$20,325.00
17	Streambed Material Type A	TON	9,660	\$125.00	\$1,207,500.00
18	Streambed Material Type B	TON	80	\$125.00	\$10,000.00
19	Weir Boulders	EA.	220	\$500.00	\$110,000.00
20	Habitat Boulders	EA.	15	\$500.00	\$7,500.00
21	Fabric Encapsulated Soil (FES) Lifts	F.F	8,990	\$65.00	\$584,350.00
22	Surface Fabric Treatment	S.Y.	5,580	\$5.00	\$27,900.00
23	Logs with Rootwads	EA.	50	\$1,500.00	\$75,000.00
24	Logs	EA.	38	\$1,500.00	\$57,000.00
25	Logs for Timber Piles	EA.	38	\$1,500.00	\$57,000.00
RETAINING WALL A					
26	Temporary Support of Excavation	S.F.	2,890	\$75.00	\$216,750.00
	Cast-in-Place Concrete	C.Y.	281	\$1,250.00	\$351,250.00
	Reinforcing Steel	LBS.	18,588	\$2.00	\$37,176.00
	Bituminous Dampproofing	S.Y.	226	\$97.00	\$21,922.00
	Formliner	S.F.	1,289	\$25.00	\$32,225.00
	Gravel Borrow	C.Y.	142	\$60.00	\$8,520.00
	Gravel Borrow for Backfilling Structures and Pipes	C.Y.	587	\$63.00	\$36,981.00
27	Decorative Metal Fence (5' ht.)	L.F.	6	\$120.00	\$720.00
28	Decorative Metal Fence (4' ht.)	L.F.	73	\$100.00	\$7,300.00
29	Black Vinyl Coated Chain Link Fence (6' ht.)	L.F.	152	\$35.00	\$5,320.00
30	Guardrail Type TL-2	L.F.	109	\$40.00	\$4,360.00
	Rounded Terminal End Section for W-Beam	EA.	2	\$500.00	\$1,000.00
RETAINING WALL B					
31	Temporary Excavation	C.Y.	116	\$65.00	\$7,511.11
	Cast-in-Place Concrete	C.Y.	43	\$1,250.00	\$53,750.00
	Reinforcing Steel	LBS.	8,143	\$2.00	\$16,286.49
	Bituminous Dampproofing	S.Y.	77	\$97.00	\$7,469.00
	3/4 Inch Crushed Stone	TON	50	\$75.00	\$3,750.00
32	Black Vinyl Coated Chain Link Fence (6' ht.)	L.F.	84	\$35.00	\$2,940.00
33	24 Inch Reinforced Concrete Pipe	L.F.	11	\$200.00	\$2,200.00
34	24 Inch Reinforced Concrete Pipe Flared End	EA.	1	\$2,000.00	\$2,000.00
PLANTING AND SEEDING					
35	Conservation Grade Trees	EA.	438	\$65.00	\$28,470.00
36	Conservation Grade Shrubs	EA.	840	\$45.00	\$37,800.00
37	Tubelings	EA.	84,460	\$4.00	\$337,840.00
38	Conservation Seed Mix	AC.	8.0	\$22,000.00	\$176,000.00
39	Upland/Park Seed Mix	AC.	0.6	\$15,250.00	\$9,150.00
MISCELLANEOUS					
40	Floating Safety Boom	EA.	1	\$19,250.00	\$19,250.00
	Boom Anchors	EA.	2	\$3,500.00	\$7,000.00
41	Danger Sign	EA.	1	\$1,000.00	\$1,000.00
	Interpretive Sign	EA.	1	\$5,000.00	\$5,000.00
BASE CONSTRUCTION TOTALS					
SUBTOTAL					\$7,235,370.60
CONTINGENCY (10%)					\$723,537.06
TOTAL BASE CONSTRUCTION COST					\$7,958,907.66
ADD ALTERNATE ITEMS - SCOUR PROTECTION					
A1	Scour Protection Riprap Type A (MBTA Bridge)	TON	394	\$75.00	\$29,550.00
ADD ALTERNATE A TOTAL					
SUBTOTAL					\$29,550.00

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ADD ALTERNATE ITEMS - PEDESTRIAN BRIDGE, WALKWAY RETAINING STRUCTURE, AND ASPHALT WALKING TRAIL					
B1	Excavation and Off-site Disposal of Other Soils	C.Y.	748	\$90.00	\$67,320.00
	Temporary Support of Excavation	S.F.	1,036	\$75.00	\$77,700.00
	Cast-in-Place Concrete	C.Y.	92	\$1,250.00	\$115,000.00
	Reinforcing Steel	LBS.	12,172	\$2.00	\$24,344.00
	Gravel Borrow	C.Y.	37	\$60.00	\$2,220.00
	Gravel Borrow for Backfilling Structures and Pipes	C.Y.	343	\$63.00	\$21,609.00
	Bituminous Dampproofing	S.Y.	85	\$97.00	\$8,245.00
	Formliner	S.F.	596	\$25.00	\$14,900.00
	Trench Drain	L.F.	16	\$150.00	\$2,400.00
	Superpave Surface Course - 12.5 Polymer	TON	12	\$165.00	\$1,980.00
B2	Pedestrian Bridge	L.S.	1	\$335,000.00	\$335,000.00
	Micropiles	EA.	20	\$9,000.00	\$180,000.00
	Verification Test for Micropiles	EA.	2	\$23,680.00	\$47,360.00
	Proof Test for Micropiles	EA.	2	\$6,640.00	\$13,280.00
	Micropile Length Adjustment	L.F.	70	\$153.00	\$10,710.00
	Excavation and Off-site Disposal of Other Soils	C.Y.	143	\$100.00	\$14,300.00
	Cast-in-Place Concrete	C.Y.	51	\$1,250.00	\$63,750.00
	Reinforcing Steel	LBS.	6,747	\$2.00	\$13,494.00
	Gravel Borrow	C.Y.	26	\$60.00	\$1,560.00
	Gravel Borrow for Backfilling Structures and Pipes	C.Y.	72	\$63.00	\$4,536.00
B3	Bituminous Dampproofing	S.Y.	36	\$97.00	\$3,492.00
	Clearing and Grubbing (Walkway and Trail)	AC.	0.55	\$20,000.00	\$11,000.00
	Asphalt (Asphalt Walking Trail)	S.F.	9,860	\$6.00	\$59,160.00
B4	Silt Sock	L.F.	1,307	\$7.00	\$9,149.00
	Concrete Block Retaining Wall	F.F.	6,047	\$100.00	\$604,734.50
B5	2" Clean Washed Crushed Stone (Concrete Block Retaining Wall)	C.Y.	233	\$60.00	\$14,000.44
B6	Riprap Type C	TON	43	\$75.00	\$3,209.43
B7	Decorative Metal Fence (3.5' ht)	L.F.	100	\$100.00	\$10,000.00
B8	Black Vinyl Coated Chain Link Fence (6' ht.)	L.F.	1,724	\$35.00	\$60,340.00
B9	Trail Crossing for Stormwater Outfall	L.S.	1	\$25,000.00	\$25,000.00
B9	Semi-Shade Seed Mix	AC.	0.4	\$43,600.00	\$16,464.76
ADD ALTERNATE B TOTAL					
SUBTOTAL					\$1,836,258.13
ADD ALTERNATE ITEMS - OVERLOOK					
C1	Permeable Pavers	S.F.	308	\$40.00	\$12,320.00
	Salvaged Boulders	EA.	13	\$300.00	\$3,900.00
	Monolithic Granite Stone Benches	EA.	3	\$2,500.00	\$7,500.00
	Engraved Granite Monument Stone	EA.	1	\$3,000.00	\$3,000.00
	Salvaged Stone Wall	F.F.	40	\$100.00	\$4,000.00
C2	Cement Concrete Sidewalk	S.F.	452	\$15.00	\$6,780.00
	Granite Curb	L.F.	117	\$60.00	\$7,020.00
	Granite Curb Corner	EA.	1	\$500.00	\$500.00
C3	Timber Post Guardrail Type TL-2	L.F.	62	\$50.00	\$3,100.00
	Rounded Terminal End Section for W-Beam	EA.	3	\$500.00	\$1,500.00
	Guardrail Trailing Anchorage, TL-2	EA.	1	\$3,000.00	\$3,000.00
C4	Shade Tree 2-2.5" cal.	EA.	2	\$1,500.00	\$3,000.00
C5	Ornamental Tree 1-1.5" cal.	EA.	8	\$1,000.00	\$8,000.00
C6	Shrubs 3 gal.	EA.	53	\$125.00	\$6,625.00
C7	Perennials	EA.	147	\$20.00	\$2,940.00
C8	Wood Guardrail	L.F.	70	\$120.00	\$8,400.00
ADD ALTERNATE C TOTAL					
SUBTOTAL					\$73,185.00
ADD ALTERNATE ITEMS - CASHMAN PARK					
D1	Kayak/Canoe Access Path	S.F.	1,776	\$10.00	\$17,760.00
	Exposed Aggregate Kayak Launch	C.Y.	211	\$850.00	\$179,350.00
	Timber Handrail	L.F.	284	\$100.00	\$28,400.00
	Boulder Placement for Retainage	EA.	134	\$500.00	\$67,000.00
	Gravel Borrow for Backfilling Structures and Pipes	C.Y.	41	\$63.00	\$2,593.92
D2	Reinforced Gravel Walkway	S.F.	1,795	\$20.00	\$35,900.00
D3	Reinforced Gravel Gathering Area	S.F.	365	\$20.00	\$7,300.00
	Cast-in-Place Concrete	C.Y.	8	\$1,250.00	\$10,247.88
	Stacked Stone Blocks	TON	12	\$125.00	\$1,500.00
	Granite Steps	S.F.	114	\$75.00	\$85,500.00
	Stone Platform	S.F.	290	\$550.00	\$159,500.00
	Salvaged Boulders	EA.	7	\$300.00	\$2,100.00
D4	2" Clean Washed Crushed Stone	C.Y.	19	\$60.00	\$1,140.00
D5	Shade Tree 2-2.5" cal.	EA.	25	\$1,500.00	\$37,500.00
D6	Ornamental Tree 1-1.5" cal.	EA.	28	\$1,000.00	\$28,000.00
D7	Shrubs 3 gal.	EA.	47	\$125.00	\$5,875.00
D8	Perennials	EA.	64	\$20.00	\$1,280.00
D9	Showy Wildflower Seed Mix	AC.	0.1	\$43,600.00	\$4,360.00
D9	Semi-Shade Seed Mix	AC.	0.1	\$43,600.00	\$4,360.00
ADD ALTERNATE D TOTAL					
SUBTOTAL					\$679,666.80
CONSTRUCTION TOTALS					
SUBTOTAL					\$10,577,567.58
CONTINGENCY ON ADD ALTERNATES (10%)					\$187,889.34
TOTAL CONSTRUCTION COST					\$10,765,456.92
TOTAL -10% TO +15% (ROUNDED TO NEAREST \$10,000)		\$9,689,000		TO	\$12,380,000