RECONNECTING WATERWAYS

A WORKSHOP ON REMOVING DAMS & RIGHT-SIZING CULVERTS

(SLR, 8/6/2020)

Getting the Job: Tips for Contractor Bidding

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Bid Documents

- State Bid Registry
- List of contractors who have done past similar work
- General Overview of Project
- Specifies Construction Window
  - In-Stream work often limited to July 1st to October 1st
- Bond vs holding last payment vs retainage

BID SHEET Revised 5/22/2024

WAINWRIGHT MILL DAM REMOVAL

SALISBURY, VERMONT

BIDS DUE: June 12, 2024 at 4:00 PM

Company: Contact:

Address:

Phone: Email:

Reference 1:

Reference 2:

Fill Dump Site Address Used in Estimate:

Estimated Start Date:

Estimated End Date:

Bid Item	Typical Tasks	Unit	Quantity	Item Cost ($)
A. MOBILIZATION / SITE PREPARATION	Job site setup, temporary construction fencing, site access, erosion and sedimentation control measures, construction signage, construction staking and survey, and water control.	Lump Sum	1	
B. TREE REMOVAL AND CLEARING	Excavation, cutting, and stockpiling of trees and shrubs.	Lump Sum	1	
D. DAM REMOVAL	Remove concrete dam (30 CY) and concrete training wall (3 CY).	Lump Sum	1	
E. CHANNEL WORK	Remove impounded sediment (10,700 CY), invasive species handling, form pilot channel, install saved trees, install saved cobble and gravel, and perform excavation as necessary for the installation of instream wood structures (beaver dam analogs and post-assisted log structures).	Lump Sum	1	
F. SITE RESTORATION / DEMOBILIZATION	Seed and mulch (1.7 AC), replant stockpiled shrubs, remove access, and job site cleanup.	Lump Sum	1	
TOTAL BID (written and $)				

Add Alternative:		Unit	Cost / Unit
1. REMOVE CONCRETE DAM AND TRAINING WALL	The volume estimate in the above bid item is considered to have an accuracy of +/- 10%. Provide a unit price in the event that the actual volume is more than 10% above or below the estimate.	Cubic Yard	
2. REMOVE SEDIMENT AND HAUL	The volume estimate in the above bid item is considered to have an accuracy of +/- 10%. Provide a unit price in the event that the actual volume is more than 10% above or below the estimate.	Cubic Yard	

Pre-Bid Meeting

- Held at the project site
- Mandatory or ‹ ÊÙ¿ ÷ó–
- ***Need to visit site!***
- Walk project site and discuss key pieces of design plans
- Follow up with additional questions
- Crucial that all potential bidders receive the same information

Bid Selection – What are we looking for?

- Low, but responsive bid
- Experience usually plays into selection
- References, experience with river and dam work
- If asked for, project examples – specific to project
- If asked for, special project elements
  - Sequence
  - Water control
  - Schedule
  - Fill site location

	Item Cost					TOTAL	Add Alternative - per CY		
	A. MOBILIZATION / SITE PREPARATION	B. TREE REMOVAL AND CLEARING	D. DAM REMOVAL	E. CHANNEL WORK	E. SITE RESTORATION / DEMOBILIZATION	TOTAL	1. REMOVE EARTHEN EMBANKMENT AND HAUL	2. REMOVE CONCRETE SPILLWAY AND HAUL	3. REMOVE SEDIMENT AND HAUL
	$ 314,500	$ 49,500	$ 467,200	$ 376,500	$ 47,500	**$ 1,255,200**	$ 24.75	$ 148.35	$ 32.00
	$ 54,780	$ 58,300	$ 269,300	$ 275,520	$ 94,775	**$ 752,675**	$ 13.00	$ 55.00	$ 13.00
	$ 55,000	$ 6,000	$ 325,300	$ 275,000	$ 9,500	**$ 670,800**	$ 19.25	$ 25.00	$ 25.00
	$ 136,649	$ 78,166	$ 404,783	$ 262,262	$ 30,521	**$ 912,381**	$ 24.71	$ 146.37	$ 35.04
STATISTICS									
Min	$ 54,780	$ 6,000	$ 269,300	$ 262,262	$ 9,500	**$ 670,800**	$ 13	$ 25	$ 13
Max	$ 314,500	$ 78,166	$ 467,200	$ 376,500	$ 94,775	**$ 1,255,200**	$ 25	$ 148	$ 32
Mean	$ 140,232	$ 47,992	$ 366,646	$ 297,320	$ 45,574	**$ 892,892**	$ 19	$ 76	$ 23
Standard Deviation	$ 122,405	$ 30,454	$ 87,085	$ 53,141	$ 36,297	**$ 316,428**	$ 6	$ 64	$ 10

Bid Selection – How are we picking?

- All unique
- Carefully read submission requirements and submit exactly what is asked for
- Review by large group of stakeholders or just engineer and owner
- Example language:

13. BID SELECTION CRITERIA:

The contract, if awarded, will be awarded to the least costly, best qualified and most responsible Bidder. Note that the OWNER is not obligated to award the project to the lowest bid based on cost alone. In determining the "least costly, best qualified and most responsible Bidder," in addition to price, the following may be considered:

1. The substantial performance of the Bidder in meeting the specifications and other terms and conditions of the solicitation;
2. The ability, capacity and skill of the Bidder to provide the services required, and to do so within the time specified;
3. The character, integrity, reputation, experience, financial resources and performance of the Bidder under previous contracts with the OWNER (if applicable) and elsewhere.

The chosen CONTRACTOR may be required to provide references and demonstrate successful completion of similar work. The chosen CONTRACTOR may be required to demonstrate that he or she consistently performs work using the highest quality of workmanship. The chosen CONTRACTOR may be required to demonstrate that he or she owns or has access to the equipment required to perform this work. CONTRACTOR shall not assign or subcontract the performance of this project or any portion thereof to any other CONTRACTOR without the prior written approval of the OWNER.

The OWNER reserves the right: (1) to accept or reject any or all Bids in whole or in part and to accept other than the lowest price proposal; (2) to amend, modify, or withdraw this Request for Bids; (3) to require supplemental statements or information from Bidders; (4) to waive or correct any irregularities in Bids received, after prior notice to the Bidders; (5) to negotiate with any vendor who submits a Bid.

Bid Selection – How are we picking?

- Rank bids by price or specified ranking if graded
- Review references
  - Types of projects, experience with in-water work, etc.
- Interview contractors
  - Equipment, labor, schedule, sequence of work, access plan, water control plan, fill site, etc.
- Trainings factor in
  - This workshop, Shoreland Erosion course, Rivers & Roads
- Recommend contractor to project owner

Successful Bidding

- Every site is different – Need to adapt
- Picture the end product
- Picture the process
- Risk assessment
- Bond fees

Read the Fine Print

- Understand Scope
- Layout/ Elevation Checks – Who is doing it? How specified (contours vs sections)
- Habitat Creation – Takes care and effort – trees, rocks, roughness

Construction Schedule

- Construction in-stream work window
- Planting timing
- Include extra time for high flows
- Alternative construction sequence, water control for high flow conditions
- Restoration as project areas complete

Water Control Plan

- Design suggests a method that has regulatory buyin
- Sequencing to control sediment and water
- Any weather
- Handle high or low flows
- How to apply plan EPSC


FLUIDSTATE

Sediment Control

August 16, 2024

September 18, 2024

Emergency Action

- Remove equipment from floodplain area
- Plan ahead for weather events
- Stabilize ahead of storm – may be extra costs
- Extra materials onsite for emergency stabilization
- Spill kit at site
- Removing and replacing crossings

Two excavators at the edge of the pilot channel that were toppled in flood waters and uprighted.

Permit Compliance

- Read and understand permit conditions
- Co-permittee status for erosion control
- Signage and road safety
- Clear understanding of what is required
- Archeological protected areas – work around
- Expectations in and around wetlands
- Limits of approved fill sites

Staging

- Little to no disturbance
- Platforms
- Demarcation
- Not big enough

Invasive Species Handling

- Clean equipment ahead
- Special handling
- Sequencing to avoid/ remove first
- Separation from clean
- Disposal requirements
- Cleaning between phases

Special Materials

- Native Seed Mix
- Mulch – no seeds, no fertilizer
- Tree/ Shrub Planting
  - Substitutions of cultivars not always accepted
  - Cost for large size
  - Special planting procedures
  - Planting timing / guarantees
- Streambed
- Logs for habitat
  - Too long for truck
  - Root ball size/ messy
  - No invasives!

Fill Location

- Logistics
- Loading
- Unloading/ Pile Management

Access

Access

- Different Soils

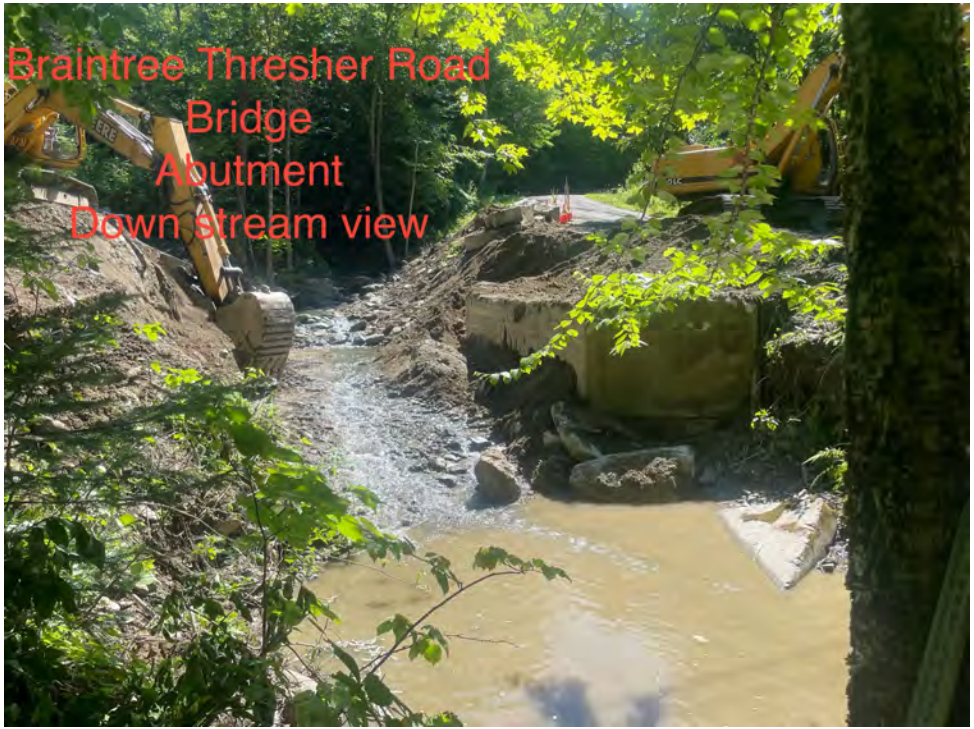
Access

- Crossing channel

Challenges

- Unexpected surfaces
- Uncertain quantities
- Unforeseen site conditions
- Avoiding sensitive areas
- Space constraints
- Material availability
- Weather/ flows

Braintree Example



Braintree Example

Construction Observation Report

Date: August 21, 2024 **Time On Site:** 3:45 PM **Time Off Site:** 4:55 PM

Project: Blake & Higgins Dam Removal (SLR #12525.00019)

Observed By: Jessica Louisos & Roy Schiff

Weather: Sunny, normal flow, 70°F

Equipment / Materials

- CAT 315CL Excavator / Derrick
- Hitachi Zaxis 270LC Excavator / Aaron
- Hitachi Zaxis 350LC Excavator / Alex
- Deere 350D Excavator with hammer / Derrick
- Caterpillar 226 Sweeper / Idle
- Triaxle Dump Trucks x 2 / Norm and David

Personnel

- Aaron Adams / Adams Trucking & Excavation - 802-738-3741,

Construction Activity

- Sorting upper dam materials and setting aside large concrete pieces to fill south bank, stockpiling broken concrete, sediment, and dirt. Stone riprap separated for reuse as part of riprap. Hauling out by passing between excavators and loading into trucks waiting on the bank.
- River flow is running through the notched dam on river left.
- Hammering dam on south side. Currently near flush with proposed river bank above removal area and ~ 1 foot above downstream pool water surface. No bedrock uncovered yet.
- Directing water around active work area with dam pieces and river sediment. The flow is isolated from the active work area.
- Trucks loaded at river edge and hauling dam pieces to Rockingham pit.
- Riprap applied over the approximately 30 feet of bank between the south piers. Filled in back of riprap with concrete pieces to bring to grade. Filled over riprap with river sediment to provide a growing medium. Tied into very large existing toe rock downstream of dam.

Design / Construction Notes

- Riprap on south bank has one location uphill of pier that is approximately 4 feet below elevation shown on plans due to access/reach inaccessibility uphill of pier. Existing rock in place at this location. Aaron to check grades at top of riprap slope.
- Concrete left at dam toe on south bank may need to be hammered farther back, to be evaluated once hammered lower to see toe tie in location.
- Concrete left at dam toe to be roughened with a lower trough hammered in at back to allow upper riprap to hold better on concrete surface.

Compliance Notes

- No observed turbidity. Crossing location has hard clean rock bottom. No runoff from the construction site.

Schedule

- Plan to be onsite Monday – Friday 7 am – 4 pm
- Thursday – continue hauling material from site, continue to hammer dam lower on south side, continue to reconstruct right bank.

Photos

Figure 1: Preparing right bank for stone armor application.


Hands Mill Dam
October 31, 2024 by FluidState Consulting

Wihakowi

July 2, 2024


Wainwright Mill Dam
November 11, 2024 photo by FluidState Consulting