

REQUEST FOR PROPOSALS

TOWN OF SHARON

DESIGN/BUILD

Culvert #41 on TH-16
Downer Road
Sharon, VT

ISSUE DATE: November 15th, 2022

MANDATORY PRE-BID SITE VISIT:
8:00am November 23rd, 2022

DEADLINE FOR SUBMITTAL:
December 14th, 2022 at 12pm; Bid Opening to Follow

CONTACT: Nicola Shipman, Selectboard Assistant

Email: selectboard@sharonvt.net

Phone: (802) 763.8268 ext. 4

Website: www.sharonvt.net

GENERAL

The Town of Sharon is accepting bids for the removal and replacement of an undersized corrugated metal culvert on TH-16 (Downer Road).

Proposals must be received on or before **Thursday, December 14th, 2022 at 12:00PM** at which time the opening will take place. Submittals may be emailed, mailed or hand delivered. Email bids must be in PDF format. Fax submittals will not be accepted.

Contractors interested in the project must submit proposals to:

Mailing Address: Town of Sharon Selectboard, PO Box 250, Sharon, VT 05065

Physical Address: Town of Sharon Selectboard, 15 School Street, Sharon, VT 05065

Email Address: selectboard@sharonvt.net

Mailed or hand-delivered proposals must be in sealed envelopes with the following information printed on the outside:

“Culvert ID# 41 Downer Road”

Name of Contractor

Due date and time

At its sole discretion, the Town may reject incomplete proposals submittals if, in its judgment, the submittal lacks information needed to effectively evaluate the proposal. Nothing in this request for proposals implies a contractual obligation with any firm, nor will the Town reimburse costs for submittal preparation.

Proposals received after the deadline will be rejected and returned unopened.

All questions related to this Request for Proposal should be submitted by email to Nicola Shipman at selectboard@sharonvt.net no later than November 28th, 2022.

RFP TIMELINE

| Item | Deadline |
|-----------------------------|--|
| Pre-bid Meeting | November 23 rd , 2022 8:00am; on site |
| Deadline for RFP Questions | November 28 th , 2022 |
| Deadline for RFP Amendments | December 1 st , 2022 |
| Proposals due | December 14 th , 2022 at 12:00PM; bid opening to follow |
| Award Date | December 19 th , 2022 (anticipated) |
| Project Completion | October 1 st , 2024 |

PROJECT SITE

Culvert #41 is on TH-16, a Class III Road in the Town of Sharon. Locally the road is known as Downer Road.

Coordinates: N43.81501°, W 72.37074°



AVAILABILITY OF LANDS

The Town of Sharon is presuming that construction limits for this project will fall within the right-of-way to Downer Road. All work on this project must be within the limits of the work depicted on plans/drawings as approved by the Stream Alteration Engineer or within the Town's right-of-way. Work outside of the limits of work will be at the Contractor's expense, if not previously approved by the Stream Alteration Engineer.

SCOPE OF WORK

This project is identified as Design/Build.

Any proposal submitted to the Town **must** lay out specific details for implementation to ensure the Town fully understands the Contractor's approach for both the Design Phase and the Construction Phase of this project. The contractor must demonstrate how they intend to meet the State of Vermont's permitting requirements as well as VTrans best practices.

Meeting Requirements:

- ☐ Any contractor wishing to bid shall attend the mandatory pre-bid meeting with the Road Foreman and ANR Engineer.
- ☐ Prior to construction, the contractor shall attend a mandatory pre-construction meeting with the Road Foreman and ANR Engineer.

Permitting:

The Town will work with the Contractor to secure the appropriate permitting from the ANR River Management Engineer and the US Army Corp of Engineers as required prior the construction start date. The Town will pay for any associated permit fees.

Design Phase:

A responsive proposal must clearly outline the Contractor's capacity to:

- ☐ submit a carefully conceived design that will meet the conditions set out in the VTrans Hydraulic Study and the VTrans Hydraulic Manual
- ☐ pass review with the VT ANR River Management Engineers
- ☐ satisfy any additional concerns or requirements that may arise from any review by the US Army Corps of Engineers.

Design Phase (cont):

Contractors understand that prior to construction, the final design **must be**:

- ☐ approved by the VT ANR River Management Engineer to ensure compliance with State environmental standards and permitting
- ☐ presented to the Town of Sharon for municipal review and concurrence
- ☐ able to satisfy additional concerns or requirements that may arise from any review by the US Army Corps of Engineers
- ☐ signed and stamped by a PE licensed in the State of Vermont
- ☐ able to meet the codes and standards of the Town of Sharon Highway Policy
- ☐ able to show that any guard rails meet the ANSI
- ☐ designed to HL-93

Please note, any Final Design submitted for this project will need to include:

- ☐ Typical Sections
- ☐ Base Plan with a project centerline and existing ROW information. Anticipating only simple ROW implications, plan to identify necessary temporary or permanent ROW acquisitions
- ☐ Proposed Stream and Roadway Profiles
- ☐ Cross Sections (25 ft increment and key location)
- ☐ New culvert details (culvert, wings, footings, cut off walls, E-Stone)
- ☐ Erosion Prevention measures and details
- ☐ Dewatering/temporary stream diversion plan

Existing Structure Removal:

The work requires removal/disposal of an undersized corrugated metal 3' pipe culvert which does not meet current VTrans Hydraulic Manual Standards or Stream Equilibrium Standards for bankfull width (span length). This shall be the responsibility of the contractor.

Construction Phase:

- ☐ The State Hydraulic study recommends a concrete box culvert with an inside opening span of 10' and a minimum height of 6'.
- ☐ Please note, this is a change from the 7' stated in the original hydraulic study and the change has been approved by Scott Jensen of VT ANR.
- ☐ Any precast structures shall be installed in dry conditions. The culvert will need 2' infill with E-stone for a clear height of 4'.
- ☐ The height from the streambed to the road limits the replacement to a box structure.

Construction Phase (continued):

During the Construction phase, the contractor's responsibilities will include:

- ☐ stream diversion
- ☐ excavation
- ☐ existing structure removal
- ☐ disposal of debris
- ☐ installation of replacement structure
- ☐ backfill/slope stabilization.

Additionally, the contractor's engineer shall review any required drawing submittals and shall visit the site during construction to provide technical assistance as needed particularly during critical periods.

The Town of Sharon Road crew will be responsible for closing the road during construction and will complete the final road grading.

All work will be performed to Vermont State Standards and will satisfy the requirements of any permits issued for the project.

Additional Details:

Flared wingwalls matching into the channel banks at the inlet and outlet are desirable.

TYPE OF BID

Firm-fixed-price.

The Town has a fixed budget for the construction of this project and has been awarded funding through the VTrans Town Highway Structures Grant Program. There will be no requests made to the Town for extra compensation.

AWARD

The Town of Sharon does not obligate itself to accept the lowest or any proposal and reserves the right to reject any or all proposals, and to waive any formalities, informalities, and minor deviations in any proposal. Award will be made to the lowest overall responsive, qualified and responsible bidders.

INSURANCE REQUIREMENTS

The Contractor, and any subcontractors if not covered by the Contractor, shall maintain the following minimum coverages for the duration of the contract. The Certificates of Insurance shall name the Town as additionally insured party as its interests may appear. All policies shall be noncancellable without 30 days prior written notice from the insurance carrier to the Town.

Workers' Compensation: Workers' compensation insurance at minimum of \$500,000 for any one occurrence, in accordance with the laws of the State of Vermont and any other state in which it is performing the Contract Scope of Work.

General Liability Insurance: Commercial general liability written on an occurrence form with limits of not less than:

\$1,000,000 Each Occurrence

\$1,000,000 General Aggregate

\$1,000,000 Products/Completed Operations Aggregate

\$50,000 Damages for Premises Rented to You

Commercial general liability insurance shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract.

Automotive Liability: Automotive liability insurance covering all motor vehicles, no matter the ownership status, used in connection with the contracted project. Limits of coverage shall be in the amount required by any applicable state law.

Indemnification: The Contractor shall defend, indemnify and hold the Town harmless against: any injury, death, loss, suit or claim, including expenses and attorneys' fees arising from any negligent action or omission on the sole part of Contractor and its Subcontractors in connection with the project.

CONTRACTING

The Contractor, prior to being awarded a contract, shall apply for registration with the Vermont Secretary of State's Office to do business in the State of Vermont, if not already so registered. The registration form may be obtained from the Vermont Secretary of State, 128 State Street, Montpelier, VT 05633-1101, PH: 802-828-2363, Toll-free: 800-439-8683; Vermont Relay Service – 711; web site: <https://www.sec.state.vt.us/>. The contract will not be executed until the Contractor is registered with the Secretary of State's Office. The successful Contractor will be expected to execute sub-agreements for each subcontractor named in the proposal upon award of this contract.

Prior to signing the contract, the Contractor shall provide the Town with a completed W-9 form and provide proof of Insurance Coverage in accordance with this Request for Proposal requirements for the Contractor and any subcontractor. The certificate of insurance coverage shall be documented on forms acceptable to the Town.

If the award of the contract aggrieves any firms, they may appeal in writing to the Town of Sharon Selectboard, P.O. Box 250, Sharon, VT. The appeal must be post-marked within seven (7) calendar days following the date of written notice to award the contract. Any decision of the Town Selectboard is final.

The cost of preparing, submitting, and presenting is the sole expense of the firm. The Town reserves the right to reject any and all proposals received because of this solicitation or to cancel this RFP in part or in its entirety if it is in the best interests of the Town. This Request for Proposals in no way obligates the Town to award a contract.

QUALIFIED DISADVANTAGED AND WOMEN OWNED BUSINESSES

Qualified disadvantaged (DBE) and women (WBE) owned businesses are encouraged to submit proposals. Sharon is an Equal Employment Opportunity employer.

PROPOSAL REQUIREMENTS

1. **Contractors must complete and submit the Bid Form (see Attachment A) as the first page of their bid submission by December 14th at 12:00pm.**

2. **TECHNICAL PROPOSAL**

In addition to the Bid Form, the Contractor's shall submit a technical proposal which will include:

- ☐ Plan for engineering
- ☐ Plan for removal and disposal of the existing culvert
- ☐ Plan for the design for the replacement culvert
- ☐ Plan for construction and installation
- ☐ Implementation timeline, including project start date and completion dates
- ☐ Three professional references
- ☐ A list of at least three similar projects successfully completed by the contractor
- ☐ Additional photos/narratives/descriptions may be included with the proposal as needed

PROPOSAL EVALUATION

Proposals will be evaluated considering the following weighted criteria:

| Criteria | Weight | Maximum Points | Total |
|--|--------|----------------|-------|
| Understanding the Scope of Work | 4 | 5 | 20 |
| Clear Plan for Meeting Design Standards | 4 | 5 | 20 |
| Qualifications/Experience of Contractor | 3 | 5 | 15 |
| Past Performance on Similar Projects | 4 | 5 | 20 |
| Reasonableness of proposed schedule and labor hour estimates | 5 | 5 | 25 |

ADDITIONAL INFORMATION

Attachments to this proposal include:

- ☐ Attachment A – Bid Form
- ☐ VTrans Hydraulic Study

BID FORM
CULVERT #41 DOWNER ROAD

Primary Contact: _____

Name of Business: _____

Physical Address: _____

Mailing Address: _____

Daytime Phone: _____ Cell Phone: _____

Email: _____

Please include:

☐ Certificate of Insurance☐ W-9☐ Technical Proposal

In accordance with the Request for Proposal, the undersigned proposes to provide all Design/Build services necessary to perform all work in accordance with Vermont State Standards and has attended the required pre-bid meeting. The undersigned's proposal for the lump sum price as follows:

Firm-Fixed-Price: Culvert #41 Design/Build

| | |
|-------------------|----|
| Design: | \$ |
| Labor: | \$ |
| Materials: | \$ |
| Equipment | \$ |
| Total: | \$ |

DELIVERY DATE AND ACCEPTANCE If awarded this contract within thirty (30) days after the time set for the opening of bids, Contractor agrees to provide work and materials as proposed without escalation of prices, and to complete installation by October 1st, 2024.

Respectfully Submitted,

Name: _____ Signature: _____

Title: _____ Company: _____

State of Vermont
Structures and Hydraulics Section
Barre City Place
219 North Main Street | Barre, VT 05641
vtrans.vermont.gov

[phone] 802-371-7326
[fax] 802-828-3566
[ttd] 800-253-0191

Agency of Transportation

RECEIVED

JAN 26 2022

SELECTMEN
TOWN OF SHARON

TO: Christopher Bump, District 4 Project Manager

CC: Scott Jensen, ANR River Management Engineer

FROM: Luke Chamberlain, Rotational Engineer
Christian Boisvert, Hydraulics Project Engineer

DATE: January 26, 2022

SUBJECT: Sharon TH-19, Downer Road, over unnamed tributary to Ompompanoosuc River
Site location: mm0.01 of TH-19
Coordinates: [43.81501, -72.37074](#)

We have completed our hydraulic study for the above referenced site and offer the following for your use.

Hydrology

The following physical characteristics are descriptive of this drainage basin:

| | |
|---------------------------------------|------------------|
| Drainage Area | 1.3 square miles |
| Land Cover | Forest/Meadow |
| Avg. Drainage Basin Slope | 6.7 % |
| Water Bodies and Wetlands (NLCD 2006) | 0.37 % |

Using the USGS hydrologic method, the following design flow rates were selected:

| Annual Exceedance Probability (AEP) | Flow Rate in Cubic Feet per Second (cfs) |
|-------------------------------------|--|
| 43 % | 72 |
| 10 % | 140 |
| 4 % | 180 Design Flow – Local Road |
| 2 % | 230 |
| 1 % | 270 Check Flow |

Channel Morphology

The channel for this perennial stream is straight / sinuous with an estimated local channel slope of 2.5%. Field measurements of bankfull width varied from 8 to 10 feet at a bankfull depth of 1 to 3 feet upstream and downstream of the structure.

Existing Conditions

The existing structure is a corrugated metal pipe with a diameter of 3 feet, providing a waterway opening of 7.1 square feet. Our calculations, field observations and measurements indicate the existing structure does not meet current standards of the VTrans Hydraulic Manual nor does the existing structure meet state stream equilibrium

standards for bankfull width (span length). The existing structure constricts the channel width, resulting in an increased potential for debris blockage.

This structure results in water overtopping the roadway before the 43% AEP.

Replacement Recommendations

In sizing a new structure, we attempt to select structures that meet both the current VTrans hydraulic standards, state environmental standards with regards to span length and opening height, and allow for roadway grade and other site constraints.

The low height from the streambed to the road might limit the replacement options to a box structure, as the roadway may have to be raised substantially for a pipe. This option is not recommended as an increase in roadway elevation could develop a dam during larger storm events, thereby increasing the extent of flooding upstream. Pipe manufacturers can provide specific recommendations regarding minimum and maximum fill heights and required pipe thickness.

Based on the above considerations and the information available, we recommend any of the following structures as a replacement at this site:

- A concrete box with an inside opening span of 10 feet and a minimum height of 7 feet. The box invert should be buried 2 feet. This will result in a clear height of 5 feet above the streambed, providing 50 square feet of waterway area. Bed retention sills should be added to the bottom of the structure. Sills should be 12 inches high at the edges of the box and 6 inches high in the center, creating a V-shape across the width of the box. Sills should be spaced no more than 8 feet apart throughout the structure with one sill placed at both the inlet and the outlet. The structure should be filled level to the streambed with E-Stone, Type-II, allowing flow to be kept above the surface, providing the conditions necessary for aquatic organism passage. The roadway should be built up as needed to accommodate the structure. This structure results in a headwater depth of 3.7 feet at 4% AEP and 4.9 feet at 1% AEP.
- A pipe arch with a clear span of 128 inches and a height of 83 inches. The invert should be buried 2 feet. This will result in a clear height of 4.9 feet above the streambed, providing 43 square feet of waterway area. Bed retention sills need to be added as described for the box above. This structure results in a headwater depth of 4.0 feet at 4% AEP and 5.5 feet at 1% AEP.

Note: Any similar structure that fits the site conditions could be considered. Any structure with a closed bottom should have bed retention sills and a buried invert as described above.

To match the approximate existing structure slope, the structures recommended above have been modeled with a culvert slope of 1%. With this slope, the channel at the outlet will need to be built up to connect E-Stone through the culvert to the upstream end. When complete, there should be no drop at the outlet.

Stone Fill, Type II should be used to protect any disturbed channel banks or roadway slopes at the structure's inlet and outlet, up to a height of at least one-foot above the top of the opening. The stone fill should not constrict the channel or structure opening.

Prior to any action toward the implementation of any recommendations received from VTrans, stream type and structure size must be confirmed, and may be modified, by the VT ANR River Management Engineer to ensure compliance with state environmental standards for stream crossing structures. Regulatory authorities including the US Army Corps of Engineers may have additional concerns or requirements regarding this structure.

General Comments

It is always desirable for a new structure to have flared wingwalls, matched into the channel banks at the inlet and outlet, to smoothly transition flow and protect the structure and roadway approaches from erosion. It is also recommended that full height concrete headwalls be constructed at the inlet and outlet. Any closed bottom structure should also be equipped with cutoff walls, extending to a depth equal to the culvert rise, up to 4 feet, or to ledge, to serve as undermining prevention. Any new structure should be properly aligned with the channel, span the natural channel width, and be constructed on a grade that matches the channel.

The structures recommended above have been sized with respect to hydraulic and environmental standards and do not consider debris blockage complications. **To minimize maintenance and ensure constructability, it is recommended that the structure height be adequate for installation of E-Stone and passage of debris.**

Please note that while a site visit was made, these recommendations were made without the benefit of a survey and are based on limited information. The final decision regarding replacement of this structure must comply with state regulatory standards, and should take into consideration matching natural channel conditions, roadway grade, environmental concerns, safety, and other requirements.

Please contact us if you have any questions or if we may be of further assistance.