



Request for Proposals

Project Name	<u>Fire Station Energy Improvements</u>
Owner	<u>Town of Groton</u>
Location	<u>Groton, VT</u>

Request for Proposals – Construction Services for Town of Groton Fire Station

KEY DATES

Pre-Bid Site Visit Day: September 18, 2025 (2pm EDT)

Proposals Due: ~~September 29, 2025~~ October 8, 2025(4pm EDT)

Work Completed By: No later than ~~May 15, 2026~~ July 15, 2026

Through funding from the VT Municipal Energy Resilience Program (MERP), the Town of Groton requests written proposals to secure construction services for the Fire Station Energy Improvements Project.

Please note, this is one of three similar RFPs involving energy improvements at Groton municipal buildings. The other two are for the Community Building and Town Garage. We encourage you to consider and bid on all three.

Schedule

RFP Post Dated: 08/28/25

Pre-Bid Site Visit: 09/18/2025 (3pm EDT) – *RSVP in advance by sending your name, organization, and contact info to grotonttogether@gmail.com.*

Deadline for Proposals: ~~09/29/2025~~ 10/08/2025 (4pm EDT)

Expected Selectboard Meeting to Review & Select Proposal: ~~10/01/2025~~ 10/22/2025(5pm EDT)

Construction Window: October 2025 – ~~05/15/2026~~ 07/15/2026

Project Team

Owner: Town of Groton

Groton MERP Grant Project Team: Mike Gaiss (617-398-0896, mgaiss@gmail.com), Dennis Casey (802-751-9016) drcasey58@gmail.com)

Engineering Consulting Partner: Alan Therrien, Senior Engineer, Cx Associates (alan.therrien@cx-assoc.com)

Groton Town Clerk: Carrie Peters, townclerk@grotonvt.com

Questions

General questions should be directed to a Groton MERP Grant Project Team member. Technical questions in advance of the Pre-Bid Site Visit should be directed to the Engineering Consulting Partner.

Submission Deadline

Please submit your proposal no later than 4:00 p.m. EDT on ~~09/29/2025~~ 10/08/2025 to:

Carrie Peters

Groton Town Clerk

1476 Scott Highway

Groton, VT 05046

townclerk@grotonvt.com

1. Scope of Work

Building Enclosure Improvements

As described in the MERP Level I Energy Assessment Report for the Groton Fire Station, several improvements have been identified for the building enclosure to improve efficiency and reduce energy usage. The building is 1 story (+ loft) with an approximate floor area of 2,500 square feet.

Exterior Door Replacement

The Fire Station has three (3) exterior person doors, each approximately 80" tall by 36" wide, that are in poor condition and shall be replaced.

1. Materials
 - a. Insulated Steel Pre-Hung Exterior doors
 - i. Basis of design is an opaque Jeld-Wen steel prehung Front Door. Equal substitutions will be considered. These doors are within masonry openings, so welded metal frames may be required.
 - ii. Doors shall have a maximum U-Factor 0.15, equivalent to R-6.7.
 - iii. Hardware type and finish, interior finish, and exterior finish to be approved by Owner prior to ordering.
 - b. Door Accessories
 - i. All door installation accessory materials including but not limited to flashing tape, flashing membrane, sealants, and fasteners shall be in compliance with manufacturer's written instructions.
2. Installation
 - a. Existing exterior person doors and frames shall be removed and disposed of by the Contractor.
 - b. Door and frame sizes shall be measured by contractor to fit in existing rough openings.
 - c. Rough opening framing shall be inspected and confirmed acceptable prior to door installation. Any framing at the door opening in poor condition shall be replaced prior to installation.
 - d. Doors and frames shall be installed level, plumb, square, and in accordance with manufacturer's written instructions. Air sealing and water management practices shall also be installed per manufacturer's instructions.
 - e. After complete door installation, interior wooden trim shall also be installed. Finish to be approved by Owner.

Air Seal and Insulate Attic Hatch

The current attic hatch is not insulated or weather-stripped, resulting in excess heat loss via conductivity and air exfiltration. The intent of this scope is to build a new hatch that is effectively insulated and air sealed.

1. Materials
 - a. Foil-Faced Polyisocyanurate Insulation
 - i. Shall have a minimum R-value of 6.5 at 1 inch when tested in accordance with ASTM C1289 and C518
 - ii. Basis of design material is DuPont Tuff-R 2" Polyisocyanurate. Equal substitutions will be considered.
 - b. Accessories
 - i. ¾" Plywood
 - ii. Foil Tape
 - iii. Foam Board Adhesive
 - iv. Wood Trim

- v. 100% Clear Silicone Sealant
- vi. Self-Adhered ½" Closed-Cell Foam Gasket
- vii. Finish Paint

2. Installation

- a. Existing hatch panel and perimeter trim is to be removed and disposed of by the Contractor.
- b. Install new wood trim around perimeter of hatch opening and create a continuous perimeter lip that can support a hatch panel on all 4 sides.
- c. Install self-adhered closed-cell foam gasketing on the attic side of the trim lip, taking care to ensure surfaces are clean and gasket joints are tight, without gaps that would allow air to bypass.
- d. Using clear silicone sealant, caulk the perimeter of the wood trim to the surrounding ceiling. Include sealant at corner miters joints. Tool sealant in place.
- e. Build an insulated hatch panel that fits the hatch opening:
 - i. A hatch panel made of ¾" should be cut to size to fit the hatch opening. The panel should rest comfortably on the gasketed lip and make contact with the foam gasket on all 4 sides. The panel should not bind against surrounding framing when lifting or replacing.
 - ii. Adhere 4" (2-2" layers) of foil-faced polyisocyanurate to the attic side of the hatch panel. Insulation should be flush with the plywood on all 4 sides, creating a completely insulated panel.
 - iii. Install foil-tape over the exposed foam edges to provide protection and reduce foam deterioration during use.
 - iv. Paint trim and hatch panel in white, if desired by owner.

Interior Window Inserts

The Fire Station has (3) windows measuring 32"x32" which are single pane windows with low R-value and are assumed to be allowing air leakage/infiltration. Interior inserts are to be installed to increase the R-value and improve air sealing.

1. Materials

- a. Custom Interior Window Inserts
 - i. Window inserts are to be custom sized to fit in the existing window openings without modifications to the existing framing or trim.
 - ii. Inserts shall have 1/8" thick acrylic glazing.
 - iii. Shall be edged with compression silicon or neoprene tubing to create a tight perimeter seal.
 - iv. Insert color to be approved by Owner.
 - v. Basis of design is Standard Grade Interior Storm Windows by Indow. Equal substitutions will be considered.

2. Installation of Interior Window Inserts

- a. Contractor is responsible for measuring each window opening to verify sizing prior to ordering.
- b. Existing window framing/sills are to be inspected and repaired as needed prior to field measuring for inserts.
- c. When installed, inserts shall create a tight seal around the perimeter with no visible gaps or voids.
- d. Inserts are to be compression-fit with no fasteners and shall be installed in accordance with manufacturer's written instructions.

Mechanical, Electrical, and Plumbing System Improvements

LED Lighting and Controls Upgrade

The existing interior lighting consists primarily of surface-mounted linear T8 fluorescent fixtures (see photos below). There are also a few areas with CFL and halogen bulbs. All fixtures are currently controlled via manual switches. The interior lighting shall be replaced with new LED lighting fixtures and controls as described below.



Clockwise from top left: Surface-mounted T8 fluorescent fixtures in apparatus bay, wraparound fluorescent fixture in office, strip fixture in kitchen

A lighting survey was conducted as part of the recent energy assessment, shown below. Contractor to verify existing fixture quantities and types. Contractor to propose replacement LED fixtures that provide equivalent lumen output and meet the specifications listed in the materials section below. For existing screw-in halogen or CFL bulbs, replacement LED screw-in bulbs are acceptable.

Lighting survey from energy assessment

Space	Fixture Qty	Fixture Mounting	Fixture Type	Fixture Technology	Lamp Qty	Lamp Length	Lamp Watts	Fixture Length
Apparatus bay	14	Surface	Strip	T8 Fluorescent	4	48"	32	96"
Kitchen area	1	Surface	Strip	T8 Fluorescent	2	48"	32	48"
Bathroom	1			Compact Fluorescent	1	-	13	-
Office	3	Surface	Wraparound	T8 Fluorescent	2	48"	32	48"
Mezzanine - Storage	1	Surface		Halogen	2		90	-
Total	20							

1. Materials

a. LED Lighting Fixtures

- i. Fixtures shall be solid state lighting certified and listed on the Design Lights Consortium (DLC) Qualified Product List version 5.1 or later
- ii. Minimum efficacy: 120 lumens/watt
- iii. Operating voltage: 120-277V
- iv. Minimum color rendering index (CRI): 80
- v. Minimum warranty: 5 years
- vi. Power Factor ≥ 0.90
- vii. Dimmability: 0-10V standard
- viii. Lumen maintenance: $\geq 36,000$ hours (L90)

b. Occupancy sensors

- i. Wall-switch mounted
- ii. Dual technology

2. Installation

- a. Remove existing fixtures and properly dispose of lamps and ballasts
- b. Install new LED fixtures per manufacturer's instructions.
- c. Ensure proper mounting, alignment, and connection to existing wiring
- d. Mount and wire occupancy sensor to control lighting in office area
- e. Ensure grounding and bonding per NEC.
- f. Verify proper operation of all fixtures and controls.
- g. Provide training to facilities staff on operation and maintenance of new lighting system.

Programmable Thermostats

The existing thermostat is old and manually controlled (see below). Contractor to replace this with modern web-connected programmable thermostat.



Existing thermostat in apparatus bay

1. Materials

a. Programmable thermostat

- i. Thermostat shall be listed on ENERGY STAR Certified Smart Thermostats qualified product list

- ii. 24-V
 - iii. Minimum of 7-day programmable schedule
 - iv. Wi-Fi connectivity
 - v. Digital touchscreen
 - vi. Local manual override capability
 - vii. Basis of design is Ecobee Smart Thermostat Enhanced. Equal substitutions will be considered.
2. Installation
- a. Remove and properly dispose of existing thermostat
 - b. Install new programmable thermostat per manufacturer's instructions.
 - c. Verify proper operation of all thermostat modes.
 - d. Program initial schedule in consultation with facility staff and provide instructions on how to adjust programming.
 - e. Connect to Wi-Fi and assist with app setup.

Dual Fuel Heat Pump Furnace

The existing furnace is a fuel oil fired ~~200~~ 120 MBH unit with a rated efficiency of 83%. Contractor shall replace this unit with a hybrid heat pump system, which can provide heat primarily through a heat pump and use a propane furnace for backup/ supplemental heat. Ductwork improvements shall also be implemented.

1. Design
- a. Contractor to verify proper system sizing based on calculated heated and cooling loads (ACCA Manual N, ASHRAE, or equivalent). For pricing purposes, see estimated capacities below.
2. Materials
- a. Hybrid heat pump / furnace
 - i. ~~200,000~~ 120,000 btu/hr furnace heating capacity
 - ii. 54,000 btu/hr heat pump heating capacity
 - iii. 5 tons cooling capacity
 - iv. AFUE ≥ 90
 - v. HSPF 2 ≥ 8.5
 - vi. SEER 2 ≥ 15
 - vii. ECM blower fan
 - viii. 120/240V
 - ix. Propane conversion kit
 - x. Capability to adjust outdoor air switchover temperature
 - b. Thermostat
 - i. Wi-fi connected thermostat
 - ii. 7 Relay Outputs (Terminals): G, Y1, Y2, W1, W2, O/B, H/dH
3. Installation
- a. Remove and properly dispose of existing furnace
 - b. Install new furnace and indoor unit in accordance with manufacturer's instructions
 - c. Connect furnace to new propane line and verify regulator function
 - d. Secure heat pump outdoor unit on appropriate pad or mounting bracket
 - e. Charge system with refrigerant and test for leaks
 - f. Connect and seal all necessary ductwork
 - g. Run electrical circuits, disconnects, and thermostat wiring as needed
 - h. Mount thermostat according to manufacturer instructions
 - i. Test all system modes and verify proper operation
 - j. Provide training to facility staff on operation and maintenance of new system

Ductwork Improvements

In conjunction with the installation of the new hybrid heat pump furnace system described above, improvements shall be made to existing ductwork where required (see examples in photos below)



Area where ductwork improvements should be made (left), ductwork without terminal diffuser (right)

1. Contractor to perform visual inspection of all accessible ductwork to identify areas with visible gaps, cracks, loose fittings, or failed sealant, and for terminations that currently lack a diffuser
2. Remove deteriorated sealant and/or tape
3. Apply sealant to all identified gaps, seams, and joints
 - a. Water-based duct mastic sealant, UL 181-rated
4. Reinforce larger gaps or irregular openings with fiberglass mesh or scrim tape
5. Confirm repairs have resulted in a continuous air tight seal
6. Install terminal diffusers for ductwork where they do not currently exist
7. Provide report documenting areas sealed, materials used, and any inaccessible ductwork that could not be addressed

On Demand Electric Hot Water Heater

[Feel free to recommend best-fit solutions in place of the electric on-demand water heater.]

Domestic hot water is currently provided by a 40-gallon, 38,000 btu/hr Bradford White propane-fired water heater. This existing unit is to be removed and replaced with an on demand instantaneous electric hot water heater.

1. Materials:
 - a. On demand electric hot water heater:
 - i. 240V
 - ii. 14 kW
 - iii. $UEF \geq 0.84$
 - iv. Final unit selection to be approved by the owner
 - b. Additional components
 - i. Provide all necessary electrical components, circuit breakers, disconnects and other balance of system components rated for indoor use and sized for the voltages, currents and power of the system as appropriate.
 - ii. Provide necessary plumbing components including pressure relieve valves, pipe insulation, isolation valves, and balance of system components as appropriate.
 - iii. Ensure all components comply with local, state, and federal codes and standards
2. Installation:

- a. Remove and properly dispose of existing domestic hot water heater.
- b. Install new water heater in accordance with manufacturers' instructions and applicable state, local, and federal regulations. Ensure manufacturers' recommended clearances are provided.
- c. The water heater should be installed on a dedicated electrical circuit. Contractor shall verify capacity of existing electrical service prior to installation and coordinate upgraded electrical service if necessary. Contractor shall also provide appropriate circuit breakers and labeling.
- d. Connect new water heater to existing domestic hot water piping.
- e. Provide system documentation, manuals, permits, warranty information, and train town personnel on system maintenance.

If circumstances dictate that during the process of implementing the scope of work it becomes not feasible or cost prohibitive in terms of additional building modifications and/or enhancements, we may or may not choose to do everything in this RFP.

2. Pre-Bid Site Visit

A Pre-Bid Site Visit will be hosted at the Groton Community Building on September 18, 2025 (3pm).

- RSVP in advance by sending your name, organization, and contact info to grotontogether@gmail.com.
- We encourage bidders to submit any technical questions ahead of the site visit date via email to Alan Therrien, Senior Engineer, Cx Associates: alan.therrien@cx-assoc.com.

3. Qualifications

It is the owner's desire for the contractor to satisfy as many of the following requirements as possible:

- An established track record of successfully implementing similar types of projects (while not required, please highlight any previous experience working with municipalities).
- Provide at least two references for previously completed projects of a similar scope, including pictures of said work.
- Agree to complete all contract documents, including verification of insurance(s) prior to the start of construction.

4. Proposal Requirements

Proposals shall:

1. Provide a clear description of the proposed scope. Clearly note any exceptions to the scope outlined in the RFP. Provide lump sum pricing for each scope item outlined in the RFP. It is a requirement of the grant funding that pricing is itemized for each scope item.
2. Feel free to recommend best-fit solutions in place of the electric on-demand water heater.
3. Include a list of relevant past projects with similar size and scope of work.
4. Include at least two references from recent projects.
5. Include a proposed timeline for the project work (including an expected start and completion date). Note: All project work must be completed by ~~May 15~~ July 15, 2026.

Note: Please feel free to provide alternative approaches where you see a potentially better solution. When doing so, please provide additional details, specifications, and rationale.

5. Proposal Deadline: ~~September 29~~ October 8, 2025 (4pm EDT)

Please submit your proposal no later than 4:00 p.m. EDT on ~~09/29/2025~~ 10/08/2025 to:

Carrie Peters
Groton Town Clerk
1476 Scott Highway
Groton, VT 05046
townclerk@grotonvt.com

6. Additional Links and Information

Original MERP Level 1 Energy Assessment (Fire Station):

https://drive.google.com/file/d/17fEHMOMoeKH_ZeElKerXndYWckE-szVf/view?usp=sharing

Vermont Division for Historic Preservation: MERP Project Review Form (Fire Station):

<https://drive.google.com/file/d/1vXwlddZZ9ZNg1xphUyIfXL7yit7g9O48/view?usp=sharing>