



REQUEST FOR PROPOSALS (RFP)
DESIGN AND CONSTRUCTION HEATING & HOT WATER SYSTEM
GRAFTON FIRE STATION, GRAFTON, NEW HAMPSHIRE

The Town of Grafton, New Hampshire ("Town") invites experienced and qualified firms to submit proposals for structural design, fabrication, delivery and construction of heating and hot water systems related to the Grafton Volunteer Fire Station

Project Background & Purpose:

The radiant heating system in the Grafton Volunteer Fire Department was installed in 1993 using an oil burner and Entran II rubber tubing. System degradation has been on going, and as such the Town of Grafton is seeking to replace the boiler and distribution system in the mechanical room.

Specifications of the fire station heating and hot water system, which are included in the RFP package, were developed by John Babiarz, Fire Chief. The selected Respondent's final engineering for-construction design, construction of the heating and hot water system and associated alterations to the existing fire station must meet all applicable building and safety codes, be environmentally sound, provide for a safe working environment both during construction and afterward, and respect the integrity of the fire station.

Design & Construction Program Requirements:

The following program objectives and specifications were developed with the input of Town officials. Meetings by the selected Contractor with the Town's Board of Selectman and Fire Chief will be essential in arriving at details and final materials selections for the construction of the new heating and hot water system.

Building Design and Performance Objectives:

Respondents should be aware of the Town's intended objectives in determining the heating and hot water system:

- The new system shall include energy saving radiant system technologies using propane for fuel.
- System shall have intelligent controllers that take advantage of building thermal loss in calculating the appropriate heating strategy utilizing cost weight of thermal loading versus burning fuel versus weather pattern.

Specifications:

All work shall comply with all applicable local, state and federal regulations including the most recently adopted New Hampshire State Building Code and New Hampshire State Fire Code. Contractor shall submit to town a complete set of all necessary plans, with relevant details, for town to

review and ascertain compliance with applicable building and fire codes. Contractor should include breakdown of costs associated with materials and labor. *Contractors should design system according to the objectives stated by the Town rather than simply by the specifications listed below.*

Metallic elements of the system, including but not limited to boiler, pumps, valves and piping must be comprised of only copper, brass, and stainless steel. Aluminum and ferrous metals are strictly prohibited. System must include a dirt separator as well as a separate sediment strainer on the return. Provision must be made to prevent over-pressurization of system in the event of a clogged strainer. A pressure/temperature gauge installed to monitor manifold pressure to old Entran II loops.

The new system will be comprised of 3 zones, (2 existing and 1 set of installed radiant tubing to be manifolded) with the capability to expand to 6 without modification to the system manifold. To ensure maximum longevity of the existing radiant configuration, provision will be made to reduce back pressure on the return from the radiant manifold. Provision will also be made to easily add off boiler hot water at a time in the future. The design will include sufficient valving to isolate as many individual parts of the system as possible.

All controls external to the boiler will be commercially produced models to facilitate replacement in case of failure.

The existing black iron gas piping will be used and upgraded if necessary to accommodate the additional load.

A separate quote to provide equivalent of 40 gallons of hot water storage using the boiler as a heat source, to be connected to the existing plumbing, is also requested.

The boiler will be a propane fueled unit with a minimum AFUE of 95% that meets the above mentioned criteria for permissible materials. It will produce a minimum of 160k btu and have at least an 8 to 1 turn-down ratio. The boiler will have an outside temperature sensor and the capability to connect via wifi. System will be easily scalable with the ability to add an additional boiler in master/slave configuration as future expansion of the facility necessitates.

The quote will also include the removal of the old boiler and any discarded plumbing.

All work is to comply with all applicable state and laws and current best practices.

GENERAL INFORMATION:

Accessibility to Building:

Prospective contractors will have access to building with the fire chief as tour guide for overview of work to be performed. For the winning contractor, 1 week must be allow between removal of old system and installation of new system for patching and painting walls.

Work which may be preform at any time in the mechanical room, placing manifolds, gas fittings, boiler installations. General construction operations must **not interrupt operations of the Grafton Fire and Ambulance. Note the follow dates are for quiet time, ie no jack hammer, September 11th, primary day and November 6th general election.** Normal installation work is permitted on these dates.

Post project follow up is expected and encouraged to tune and balance the heating system to actual conditions. Access to building shall be given as needed for this work providing it will not interrupt the operations of the Grafton Fire and Ambulance.

The Town will make clear the Furnace/Mechanical room west wall and back wall for installation of manifolds and boiler.

The Town will make clear the Generator/Storage room, 5 feet from the the shared cinder block (Furnace/Mechanical wall). This for the purpose of connecting the existing radiant tubing.

Contractor:

At all times, Contractor shall maintain the structural integrity of the building.

Contractor shall secure the building at the end of each work day.

Contractor shall be responsible for damage to any walls. Should walls be damaged, contractor will repair said wall, replace and repair sheet rock as need. Repaired sheet rock shall be primed, ready to paint, but Contractor is not responsible for color painting.

Contractor shall properly dispose of all construction debris.

Upon completion of work, and test procedures, Contractor shall furnish a copy all manufactures documents and complete all warranty forms. Contractor shall furnish two copies of any generated drawings or documents, and electronic copies of drawings if they exist.

All work to be completed by 1st of November.

Penalties:

Contractor shall be liable for any damages if installation is not completed before hard cold that may damage the building or its contents.

The Town may reject any or all of the proposals on any basis and without disclosure of a reason. The failure to make such a disclosure shall not result in accrual of any right, claim or cause of action by any unsuccessful respondent against the town. Failure by a respondent to submit all information called for may be sufficient for disqualification. The Town is subject to NH RSA 91-A (the "Right-to-Know law") and has no control over the disclosure of public documents or the utilization of public documents by others. All respondents should be aware that information which they submit to the town as part of a response to this RFP becomes public record. Award will not be made solely on the basis of cost. Evaluation factors to be considered, in addition to cost, shall be:

- Specific experience with similar projects on the part of the respondent, of proposed sub-contractors, and any other members of the respondent's proposed team,
- Background and experience of professionals to be assigned to the project,
- Engineering and structural design appropriate to the scope of the RFP,
- All other factors set forth in this RFP

The town reserves the right to negotiate with one, several, or none of the firms responding to this RFP. All proposals become the property of the town and, if accepted, become a legal binding addendum to the eventual contractual agreement between the selected respondent and the town. This request for proposals in no way commits the town to make an award or reimburse any respondent for any expense incurred in responding to this request.