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August 11, 2020

Tim Carroll, Town Administrator 401 Middle Road (PO Box 1190 Chilmark, MA 02535

Re: HVAC Design Engineering Services for Chilmark School

Dear Tim:

We are pleased to provide a proposal for the HVAC engineering design for the Chilmark Elementary School. The design is based upon the results of our earlier report and the school committee/town's agreement to pursue an electric heating and cooling option for the school utilizing cold climate inverter heat pump technology (variable refrigerant flow- VRF).

The total proposal includes a construction document design drawing set based on the items listed under the scope (see attachment A).

HVAC Engineering Design Services: \$30,000.

Thank you for allowing us the opportunity to provide a HVAC consulting engineering proposal. I hope that our services will be able to meet your requirements for this project. Let us know if you have any questions. Thanks.

Sincerely,

Ross Trethewey, P.E., M. Eng

TE2 Engineering, LLC.

Attachment A: HVAC Engineering Design Services Scope

HVAC Design:

- Provide a full HVAC design for the school which includes:
 - o VRF heat pumps with ducted air handlers for all classrooms/offices.
 - Heat pumps to be located on stands on either the roof or ground with vibration isolation.
 - Air Handlers to be supplemented by electric resistance heat.
 - Energy Recovery Ventilators (ERV's) for balanced ventilation and to serve as the exhaust system for the bathrooms.
 - All air handlers and ERV's to be located above dropped ceilings in attic spaces for sound mitigation. All attic spaces to be insulated and air sealed (part of the conditioned envelope).
 - Hallways to be conditioned by ceiling cassettes or electric ceiling convectors recessed into the hallway ceiling.
 - Existing fin tube and oil boiler to remain as supplemental heat for the foreseeable future, and for potential severe weather conditions.
- Deliverables to include:
 - o HVAC Notes, narrative and control logic
 - o HVAC zone plan
 - HVAC ductwork layout (plan view)
 - o HVAC conceptual piping plan
 - HVAC outdoor heat pump locations.
 - HVAC details
 - HVAC equipment schedule

Clarification of services:

• Any work above and beyond the scope of work in Attachment A will be treated as an "Additional Service" and will be billed hourly based on the staff's hourly rate.