

**REQUEST FOR PROPOSAL
COMMISSIONING AGENT SERVICES
GARRISON ELEMENTARY SCHOOL
RENOVATIONS – PHASE I**

Dover School District (Owner) requests written proposals to secure commissioning authority (CxA) services for the renovations project at the Garrison Elementary School in Dover, New Hampshire. The Owner is committed to commissioning this facility to systematically optimize the building and ancillary systems so that they operate efficiently and effectively in accordance with the Owners Project Requirements, and that the facility staff has adequate system documentation, and training. It is the intent of the Owner to ensure that mechanical, plumbing, and building envelope systems are complete and operating as required to deliver functional and efficient performance upon occupancy, and that the Owner's staff has adequate system documentation and training.

For any future addendums please access the following website where all documents are posted http://www.dover.k12.nh.us/about_us/business_office/current_bids

The renovated areas will total approximately 32,800 square feet of the existing 61,400 square foot school building in Dover, New Hampshire with a project construction budget of \$6.3 million. The school accommodates K – 4th grades with approximately 450 students. Construction Document Addendums # 2, 3, 4, 5 & 7 approved with addendum # 6 pending December 19th, 2017 , include addendum #6 (AC) in your Commissioning proposal.

Construction is scheduled to begin in February 2018. Substantial Completion is anticipated in July 2019. The renovations project will be done in phases. The Building Construction Cost is estimated at approximately \$6.3M. The construction documents have been completed, project is currently under Construction Management, and has gone out to bid. The commissioning authority will be hired by and report directly to the Owner.

The Owner is Dover School District.

The Architect + Engineers of record are Harriman of Auburn, Maine.

The Construction Manager (CM) is Harvey Construction.

The CxA will plan, manage, perform and report on the commissioning activities, utilizing the reporting formats and standardized forms provided by the CxA as required. The CxA will submit deliverable report to the Dover School District according to a project schedule set by CxA and agreed upon by the Dover School District. It is extremely important that all commissioning tasks be conducted in a transparent manner and involves the building engineer and operations staff to the greatest degree possible

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Any questions may be submitted no later than 3 days before close of business day, 2:00 pm on Tuesday, January 9, 2018 to: Libby Simmons, (603) 516-6482, l.simmons@dover.k12.nh.us and cc to Norman Varney nvarney@harriman.com. Bids are due no later than 2:00 PM on Friday, January 12th.

TERMS AND CONDITIONS

1. This RFP does not commit Dover School District to award a contract, issue a purchase order, or to pay any costs incurred in the preparation of a qualification in response to the RFP.
2. The proposal will become part of Dover School District official files without any obligation on Dover School District part.
3. Proposer(s) shall not offer any gratuities, favors, or anything of monetary value to any officer, agent, contractor or employee of Dover School District for the purpose of influencing consideration of a qualification.
4. Proposer(s) shall not collude in any manner, or engage in any practices, with any other Proposer(s) that may restrict or eliminate competition or otherwise restrain trade. This is not intended to preclude subcontracts and joint ventures for the purpose of: a) responding to this RFP, or b) establishing a project team with the required experience and/or capability to provide the goods or services specified herein.
5. Proposer(s), their authorized representatives, and their agents are responsible for obtaining, and will be deemed to have, full knowledge of the conditions, requirements, and specifications of this RFP.
6. The proposer must promptly report to Dover School District any conditions, transactions, situation, or circumstances that would impede, impair or delay the submission of the qualification, or the proper and timely performance of the work.
7. Dover School District reserves the right to cancel this RFP or to reject any or all qualifications received prior to contract award.
8. Dover School District reserves the right to request clarification of any qualification after all qualifications have been received. The request can be in the form of oral presentation or personal meetings.
9. Dover School District reserves the right to open qualifications privately or unannounced and to reject any and all submittals and waive irregularities and informalities in any qualifications that are submitted and to be the sole and final judge of all qualifications.

Dover School District reserves the right to discontinue its evaluation of submittals from any respondents who submit false, misleading or incorrect information.

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COMMISSIONING SCOPE OF SERVICES

- Develop and utilize a commissioning plan
- Conduct a review of the contractor’s submittals of commissioned equipment and exterior envelop systems
- Visit the jobsite and provide commissioning reports
- Conduct commissioning of the building envelop systems
- Verify pre-functional test
- Functional testing
- Maintain commissioning issues log
- Participate in the training of facility staff
- Review operation and maintenance manuals
- Complete and distribute a commissioning report
- Conduct a 10 month warranty review

SCOPE DETAILS

- *Develop commissioning plan:* The commissioning plan includes a list of all equipment and systems to be commissioned, delineation of roles for each of the primary commissioning participants, and details on the scope, timeline, and deliverables throughout the commissioning process.
- *Conduct a selective review of the contractor submittals and shop drawings related to the commissioned systems:* Contractor submittals for the systems included in the commissioning scope shall be reviewed by the CxA in conjunction with the designer’s review. The review shall focus on the ability of the submitted product to meet the owner’s requirements and review comments shall be provided to the owner and the design team.
- *Visit the jobsite to observe progress:* Make periodic site visits to observe installation of commissioned systems. Provide commissioning reports reflecting the observations made during the site visits. The commissioning progress reports shall be distributed to the Owner, CM and the designer.
- *Conduct commissioning of building envelop systems:* After the renovations to the building envelop have been completed, conduct testing of and a thermal scan of the building envelop.

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- *Verify Pre-Functional Testing:* The CxA shall provide the Construction Manager with the pre-functional checklists (PFC) that includes a list of items to inspect and elementary component tests to conduct to verify proper installation of equipment. PFCs are primarily static inspections and procedures to prepare the equipment or system for initial operation. The CxA shall observe, at minimum, the startup procedures for each piece of primary equipment, unless there are multiple units, (in which case a sampling strategy may be used.) Extent of CxA observation of Pre-functional testing will be at the discretion of the CxA, though spot checking of items on the lists will be performed prior to functional testing. Completed PFC's, provided by the Contractor, are separate from and in addition to the manufacturers' installation and start-up forms and shall be reviewed by the CxA and included in the Commissioning Report. Contractor shall certify that installation, prestart, and startup activities have been completed prior to commencing functional testing. Certification shall include completed PFC's, manufacturer installation and startup checklists and the final TAB report approved by the A/E.

- *Functional Testing:* The CxA shall develop the functional testing procedures in a sequential written form, coordinate, oversee and document the actual testing. Functional performance tests (FPT) are performed after pre-functional testing and startup are completed and test the dynamic function, including all inputs and outputs, and operation of equipment and systems using manual (direct observation) or monitoring methods. Systems shall be tested under various modes and run through all the control system's sequences of operation while components are verified to be responding as the sequences state. Functional test forms will be completed during the testing process, deficiencies will be added to the Commissioning Issues Log and each included in the Commissioning Report. The CxA shall coordinate the completion of all outstanding issues.
 - Testing sampling criteria: The contractors shall submit to the CxA documentation that they have performed installation and functional performance verification in accordance with the commissioning plan for all equipment components and systems. The functional performance test may be demonstrated to the CxA for a sample of systems that comply with all of the following criteria:
 - Equipment or systems having similar components and configurations. For component testing, sampling may apply where there are many identical component types with similar applications.

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- The systems or equipment have identical sequences of operation, which are implemented using identical control software programming or firmware settings.
 - The components and systems to be included in the demonstrated samples shall be chosen by the commissioning authority at the time of demonstration.
 - Building automation system mapping of component to the operators graphic shall be demonstrated for all components.
 - The trend logging portions of all functional performance test shall be completed for 100% of the systems or components.
 - Failure testing: The commissioning plan must also identify retesting protocols for components and systems that fail initial testing.
- *Maintain commissioning issues log:* The CxA shall be maintain an issues log reflecting issues found during the commissioning process. The CxA shall identify the issues and help ensure all items are addressed and resolved.
 - *Participate in training of facility staff in accordance with the training plan:* The CxA shall be charged with reviewing the training plan, developed by the Construction Manager/General Contractor, for adequacy. The CxA shall additionally be charged with participating in the training itself.
 - *Review Operations & Maintenance Manual:* The Contractor compiles the O&M Manuals prior to commencement of training and the CxA reviews them for completeness, organization, and readability. The CxA shall review the O&M Manuals for the following items:
 - As-built sequences of operations for all equipment as provided by the design professionals and contractors, including time-of-day schedules and schedule frequency, and detailed point listings with ranges and initial setpoints.
 - Ongoing operating instructions for all energy and water-saving features and strategies.
 - Seasonal operation guidelines.
 - Recommendations for recalibration frequency of sensors and actuators by type and use.
 - Guidelines for continuous maintenance of the owner’s project requirements (operational requirements) and basis of design (basis of operation.)

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- *Complete a commissioning report:* The report must show that the building's systems have met the design intent and specifications, have been properly installed, and performing as expected, and that proper O&M documentation and training have been provided. The report should include a compilation of all commissioning documentation described in this criterion, including complete functional testing results and forms and should note any items that have not been resolved at the time the report is issued. Commissioning progress reports and the final report shall be distributed to the Owner the designer.

- *Ten month warranty, post occupancy review:* The commissioning contract shall contain provisions for a 10-month warranty and post-occupancy review. The review is intended to bring the design, construction, commissioning, and facility staff together to solicit the facility staff's comments, suggestions, and areas of concern regarding the systems in the first year of operation. Warranties on any commissioned systems should be reviewed and deficient equipment should be identified and a plan for resolution developed.

SYSTEMS TO BE COMMISSIONED

- Mechanical Systems:
 - Boiler System
 - Rooftop Unit (RTU-2)
 - Heat Recovery Units (HRU-1 – 8)
 - Variable Refrigerant Flow Systems (4 systems)
 - Radiant Panels (multiple locations)
 - Fintube Radiation (multiple locations)
 - Cabinet Unit Heaters (CUH-1 – CUH-3)
 - Exhaust Fans (EF-01 – EF-11)
 - Kitchen Hood System (Hood-1)
 - HVAC controls systems.

- Plumbing Systems:
 - Domestic hot water systems (Generation, Distribution, Heat Trace)
 - Flow control devices
 - Pumping systems

- Electrical Systems:
 - Lighting controls
 - Life Safety Systems

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- Building Envelope
 - Thermal imaging

Desired Qualifications

It is the Owner's desire for the person(s) designated as the site commissioning authority (CxA) to satisfy as many of the following requirements as possible:

- Acted as the principal commissioning authority for at least three projects of comparable size, type and scope.
- Extensive experience in the operation and troubleshooting of HVAC systems and energy management control systems.
- Extensive field experience. A minimum of five full years in this type of work is required.
- Knowledgeable in building operation and maintenance and O&M training.
- Knowledgeable in national building & fire codes as well as water-based fire extinguishing systems, detection systems and alarms systems.
- Knowledgeable in test and balance of both air and water systems.
- Experienced in energy-efficient equipment design and control strategy optimization.
- Demonstrated experience with total building commissioning approach including building envelope, and other specialty systems.
- Direct experience in monitoring and analyzing system operation using energy management control system trending and stand-alone data logging equipment.
- Excellent verbal and writing communication skills. Highly organized and able to work with both management and trade contractors.
- Experienced in writing commissioning specifications.
- A bachelor's degree in mechanical or electrical engineering is strongly preferred, and P.E. license is desired. However, other technical training, past commissioning, and field experience will be considered as a substitute.
- Membership and certification as a Certified Commissioning Professional with a Commissioning Association is desired but not required.

Proposal

Proposals need not be voluminous, but shall provide sufficient information to allow the owner to evaluate the consultant's approach, experience, staff and availability.

The proposer shall:

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- Limit their proposal to 20 single-sided pages, including graphics. A letter of introduction, section dividers, detailed resumes and the sample work products are not included in this limit.
- Have the proposal signed by an officer of the proposing firm with the authority to commit the firm.
- List the individual(s) who will serve as the lead CxA for the design phase and for the construction phase of the contract.
- Provide an overview of the firm and description of appropriateness for this project.
- Provide names and resumes of individuals responsible for envelop commissioning. The resumes shall include specific information about expertise in commissioning tasks, (e.g. design reviews, specification writing, commissioning management, troubleshooting, test writing, test execution, energy management, sustainable design, etc.)
- Provide names and resumes of individuals responsible for HVAC, Plumbing and Electrical commissioning. The resumes shall include specific information about expertise in commissioning tasks, (e.g. design reviews, specification writing, commissioning management, troubleshooting, test writing, test execution, energy management, sustainable design, etc.).
- Briefly describe “relevant” experience (project phasing, life cycle costing, testing, adjusting and balancing, building simulation, IAQ, campus projects, etc.) of the proposer’s team in the following areas. List involvement of key team members.
 - Projects similar to this one
 - O&M experience
 - Energy-efficient equipment design and control strategy optimization
 - Project and construction management
 - System design (specify)
 - Troubleshooting
- If a consultant will be providing a portion of the commissioning services than the proposal should include information from each firm in response to the items above.
- List of the 8 most recent public school commissioning projects with dates location, size, reference contact and description of commissioning services provided
- List of 3 project public school projects of comparable size and complexity.
- Describe your proposed approach to managing the project expertly and efficiently, including distribution of tasks, travel, and duration of which staff will be on site during what periods of time, etc. Describe how you intend to determine the appropriate level of commissioning effort for the various systems and equipment.

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- Provide a statement of proposer’s liability insurance coverage (type, and dollar amount of coverage). Proof of this insurance will be required prior to the award of this contract.
- Provide a fixed, lump sum total cost to accomplish the work for the following phases: (1) overall fee; (2) HVAC, plumbing systems, electrical systems, life safety systems and building automation control systems, and (3) fee for building envelope commissioning. All task amounts include associated meetings, progress reports and direct costs (travel, mileage, etc.). Use the fee table to provide fees. Also provide an hourly rate for each team member for work that may exceed the scope.

FEES FOR COMMISSIONING SERVICES

	Fee (\$)
1. Fee for HVAC systems, plumbing systems, electrical systems, life safety systems and building automation control systems.	
2. Fee for building envelope commissioning including thermal scan of the building envelop and items penetrating envelop.	
3. Overall fee for HVAC systems, plumbing systems, electrical systems, life safety systems and building automation control systems AND building envelope commissioning including roofs and items penetrating envelop	

PROPOSAL SUBMITTAL

The proposals can be emailed to the Owner no later than 2:00 PM on Friday, January 12th at: Provide one (1) original of the proposal directly to Libby Simmons for file.

Libby Simmons
Business Administrator, Dover School District
61 Locust Street, Suite 409, Dover, NH 03820
(603) 516-6482
l.simmons@dover.k12.nh.us

and cc to:

Norman Varney - Harriman
nvarney@harriman.com

Enclosures: Plan for Commissioning
Phasing Plan
Revised LATE START SCHEDULE w LOGO

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NOTE: Specifications, Drawings and Addendums, RFP & Enclosures are posted and can be downloaded

at: http://www.dover.k12.nh.us/about_us/business_office/current_bids