



Request for Proposal Geotechnical Investigation and Engineering (Released on October 3, 2022, Due October 17, 2022)

General:

The Town of Enfield, NH (hereafter referred to as the “TOWN”) invites qualified firms to submit proposals for Geotechnical Investigation and Engineering work for our new public safety building (hereafter referred to as the “CONTRACTOR”). Details of the project will be covered in the scope of work section of this document.

Instructions:

Proposals must be submitted in a sealed envelope or electronically via the email to the contact below no later than **12:00 P.M. EST on Monday, October 17, 2022**. Envelope must be clearly marked “Geotechnical Investigations” and will be opened publicly at that time. **Proposals delivered after the time listed above will not be accepted.**

Submit proposals to:

Mr. Mark Montminy, Partner
Black River Design, Architects
73 Main Street
Montpelier, VT 05602

Please forward your proposal to:

Mark Montminy markm@blackriverdesign.com and William Nourse billn@engineeringventures.com

The proposal shall include all supporting materials, and a statement defining any proposed deviations from the requirements in this document, including additions, deletions, exceptions and revisions. Please provide a lump sum fee for direct charges and an estimate of subcontractor’s costs for all services described herein. The Geotechnical Engineer shall also attach a rate schedule. The lump sum fee shall include the cost of all materials, apparatus, labor and associated expenses required to perform the services identified in this request for proposal.

Please provide a schedule for all tasks in the proposal. The town is looking to expedite the field work.

Scope of Work:

PROJECT BACKGROUND

The town of Enfield in New Hampshire is planning to construct a new public safety and community building. The property is located along Route 4 and in the process of being acquired by the town. The final location of the building has not been determined.

Existing Site and Surrounding Area

The existing site is currently a vacant open green field and is slightly sloped. It is understood that regrading has occurred in the past with lower areas on the eastern end of the site being filled in with material from high spots. Soils at the surface are generally described as native sands and band run gravels.

Proposed Site Development

While the project is still in the early stages of development, the project is currently understood to be a 19,000 sqft wood framed structure with conventional foundations. The structure will be used for the fire department (including garage bays for trucks), EMS facilities, the police department (including a two-bay sally port) and community space. The building may have a basement level.

REQUIREMENTS FOR SITE BORING AND GEOTECHNICAL ENGINEERING WORK

The work indicated here is to be contracted by the Owner or their representative. It is requested that the Structural Engineer (Engineering Ventures, PC) be advised of the work as it is conducted for review and comments.

It is requested that any previous borings or subsurface data that the owner may have for the site that is in the project's vicinity be transmitted to the Engineer prior to commencing site boring work.

Criteria and conditions presented here are not intended to preclude any subsurface environmental or geothermal studies; and should not be construed as excluding prudent practices based on conditions encountered during the boring work. Please call with any questions or comments.

SITE BORINGS

1. Perform a minimum of (6) borings and submit proposed locations on a current site plan to the Structural Engineer. Additionally, it is requested that the Structural Engineer be apprised of the on-site work schedule. In the field, the locations of the borings may be adjusted based on access issues, conditions encountered during drilling operations, and the Geotechnical Engineer or Boring Contractor's judgment. We request that any adjustments and the reason for the adjustment be reported to the Structural Engineer prior to the boring equipment leaving the site.
2. It is understood that the depth of the soil borings and/or rock coring will be as required to prepare their recommendations. All boring records shall classify all materials found, indicate penetration resistance and water table level (if present). Soil samples shall be conducted at changes in substrata type and no less than 5-foot intervals. The report is also to be signed and sealed by a Professional Engineer registered in the State of New Hampshire.
3. Individual borings are not to stop their progress in human deposited fill.
4. Additional borings or test pits may be requested based on the boring's findings.
5. All data required is to be recorded in the field and referenced to boring numbers according to the ASTM standards or other standard test methods. Soil shall be classified in the field logs in accordance with applicable ASTM standards and other standards, including, but not limited to,

ASTM standard D2488. The classification for final logs shall be based on field information, results of tests, and inspection of samples in the laboratory by the Geotechnical Engineer preparing the reports.

6. Advise Structural Engineer of the on-site work schedule. The locations of the borings may be adjusted in the field based on conditions encountered during site operations and GER's professional judgment. We request that any adjustments and the reason for the adjustment be reported prior to leaving the site.

GEOTECHNICAL ENGINEERING & REPORT

1. All boring records shall classify all materials found, indicate penetration resistance and water table level (if present). Soil samples shall be taken to formulate recommendations. The report is to be signed and sealed by a Professional Engineer registered in the State of New Hampshire, the Geotechnical Engineer of Record (GER).

2. Include with the report a chart illustrating the soil classification criteria and the terminology and symbols used on the boring logs. Identify the ASTM standards and/or other recognized industry standard sampling and test methods utilized. Provide vertical sections for each test pit, probe or boring plotted and graphically presented showing boring number, sampling method used, date of start and finish, surface elevation, description of soil and thickness of each layer, depth to loss or gain of drilling fluid, hydraulic pressure required or number of blows per foot (N value for each sample) and, where applicable, depth to wet cave-in depth to artesian head, groundwater elevation and time when water reading was made and presence of gases. Note the location of strata containing organic or foreign materials, wet materials or other inconsistencies that might affect engineering conclusions.

3. Describe the existing surface conditions and summarize the subsurface conditions.

4. Laboratory determinations of soil properties.

5. The Geotechnical Engineering Report (GER) should include at least the following:

a. Foundation design recommendations for the building including recommended foundation system(s), with any appropriate comparative alternates, with maximum allowable bearing pressures, estimated bearing depths, settlement and/or expansive soil issues, liquefaction potential, etc. Comparative absolute and differential settlement estimates should be provided.

b. Design parameters to resist superstructure lateral loads on foundation systems addressing corresponding movements and limits with corresponding factors of safety.

c. Slab-on-grade information and recommendations concerning bearing, separations from building elements, expansive soils. The modulus of subgrade reaction for sustained and short-term loads may be requested by the Design Team.

d. All site fill placement and excavation recommendations and all information necessary for preparation of Construction Documents and Specifications.

e. Basement (restrained) and retaining (cantilevered) wall design criteria including lateral earth pressures (passive, active, and at-rest), coefficient of friction and adhesion at the base for sliding resistance, how much movement must occur to activate the active and passive pressures, drainage, equivalent fluid pressure, etc. with corresponding factors of safety.

- f. Seismic geotechnical site information as required for the current IBC and ASCE 7.
- g. Anticipation of, and management of, groundwater including depth and expected range of variation.
- h. Recommendations for fill materials to be used on site including gradations, thickness, and levels of compaction for material placed under slabs, pavements, site improvements, footings; in utility trenches, and as backfill. Recommendations for asphalt pavement thicknesses for passenger vehicle and light truck loading.
- i. Frost penetration depth and effect.
- j. Evaluation of depth of material requiring rock excavation and recommended methods of removal, including recommended maximum peak particle velocity for ground vibration for rock excavation at close proximity to existing structures.
- k. Other pertinent design and construction considerations indicated by the findings of the investigation.

6. Provide for a review of the foundation design on the Construction Drawings and Specifications by the GER for conformance to the requirements and recommendations of their report.

7. These recommendations should not preclude any subsurface environmental studies or providing information required by other design disciplines of construction trades still required, such as for Civil Engineering pavements, ground water studies, etc.

ADDITIONAL REQUIREMENTS FOR SITE BORING CONTRACTOR AND/OR GEOTECHNICAL ENGINEER

1. *Right of Entry:* Site Boring Contractor or Geotechnical Engineer-of-Record will obtain the right-of entry (permission for site reconnaissance, survey, borings, etc) from the Owner of the site. The Geotechnical Engineer shall take all reasonable precautions to prevent damage to property both visible and concealed, and shall reasonably restore the site to the condition existing prior to the Geotechnical Engineers entry.

2. *Underground Facilities:* Before they perform any subsurface explorations, they will obtain from the owner all plans and other information available concerning underground services, pipes, tanks and other facilities and obstructions at the site. They will contact local governmental authorities and private firms who coordinate underground utility information, and will review plans and information they or Owner provide. The Geotechnical Engineer shall contact the Owners Representative, and all utility companies for information regarding buried utilities and structures, and is responsible for notifying Dig Safe® as required by law.

3. *Disposal of Samples:* They will fill all holes and test pits to original levels. Soil, rock, and/or other samples obtained from the project site are the property of the Owner. They will maintain the samples throughout the duration of the project.

4. *Contamination:* They will immediately notify the Owner of any observations of hazardous substances or suspected hazardous substances, prior to continuing work. The lawful removal of hazardous substances is the Owner's responsibility

Revisions:

Any questions or inquiries must be submitted in writing and received by 12:00 P.M. on Monday October 10, 2022, no later than 7 calendar days prior to the proposal due date. Answers to all questions or information given to a CONTRACTOR in response to a formal request of a substantive nature will be posted on the TOWN's RFP page on the Town of Enfield, NH website (<https://www.enfield.nh.us/new-enfield-projects/pages/requests-proposals-rfps-qualifications-rfqs>) no later than five (5) days prior to the due date.

Only such amendments, when issued by the TOWN, will be considered as being binding on the TOWN. Verbal explanations or instructions given by a TOWN employee to a CONTRACTOR in regard to this solicitation shall not be binding on the TOWN and shall be considered informal unless confirmed in writing by the TOWN. CONTRACTORS should note that all clarifications and exceptions, including those relating to the terms and conditions of the contract, are to be resolved prior to the submission of a proposal.

Evaluation Criteria:

All proposals received in response to this RFP will be evaluated to determine if they are complete and meet the requirements specified in this RFP. The vendor will be chosen based on who will provide the "best value" taking into consideration the most beneficial combination of qualifications, services, costs, and who has met the requirements of this RFP. Only proposals judged to be responsive to the submission requirements set forth in this RFP will be evaluated.

The TOWN reserves the right:

- to accept or reject any or all bids in whole or in part and to accept other than the lowest price proposal;
- to waive any technical defect, qualification, omission, informality, or irregularity in any proposal received;
- to amend, modify, or withdraw this Request for Proposal;
- to require supplemental statements or information from a CONTRACTOR;
- to extend the deadline for responses to this Request for Proposal;
- to waive or correct any irregularities in proposals received;

The TOWN may award a contract based upon the proposals received without discussion of such proposals with proposers. Each proposal should therefore be submitted with the most favorable terms the proposer can make to the TOWN.

The Request for Proposal documents and Notice of Award shall be the agreement between the TOWN and successful proposer with respect to the matters dealt with herein, and such shall supersede all other oral and written proposals, representations, understandings, and agreements previously made or existing with respect to any such matter.

Qualification of Bidders:

Staff will review, analyze, and evaluate all proposals and score them in accordance with the criteria described below. If needed, additional information may be requested from one or more CONTRACTORS.

Award will not be made solely on the basis of the cost of services. Evaluation factors to be considered in addition to cost shall be:

- The CONTRACTOR's reputation based on past work experience with the TOWN and other references.
- Quality of workmanship, material, or service provided.
- Adequate financial resources or the ability to obtain such resources as required to complete the performance of the project.
- Adequate experience, organization, technical and professional qualifications, personnel, skill, equipment, and ability.
- The ability to comply with the time frames proposal.

Each CONTRACTOR must be prepared to present satisfactory proof of their capacity and ability to successfully complete the requirements of this solicitation.

The TOWN reserves the right to make whatever investigations or inquiries necessary to determine the competency and ability of any CONTRACTOR to complete the requirements of this solicitation. A review may include, but not be limited to, inspection of the CONTRACTOR's facilities and equipment, references or previous contract performance.

Contract:

The final contract will involve, at a minimum, the terms and conditions set forth in this RFP including the general conditions and may include those reflected in the specific proposal submitted. The content shall be the exclusive source of the CONTRACTOR'S rights and remedies and shall supersede any and all prior writings, negotiations or agreements of any kind.

The TOWN is exempt of all taxes.

All CONTRACTORS must comply with all applicable Equal Employment Opportunity laws and regulations.

THE TOWN OF ENFIELD IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER

Approximate subdivision line per land-owner (we may be able to take more of the dirt loop driveway if needed)

Granite company is current landowner

Proposed Project Site

Route 4

Granite Place Drive

Eastman Pond

