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Please respond to our Exeter office.

July 31, 2017

**VIA FIRST CLASS MAIL AND
ELECTRONIC MAIL**

Pamela G. Munroe, Administrator
New Hampshire Site Evaluation Committee
21 S. Fruit Street, Suite 10
Concord, NH 03301-2429

**Re: Application of Public Service Company of New Hampshire d/b/a
Eversource Energy for a Certificate of Site and Facility
Docket No. 2015-04**

Dear Ms. Munroe:

Enclosed for filing please find the Prefiled Direct Testimony of Eric Weinrieb on behalf of the Town of Newington in the above-captioned docket.

A copy of this letter and the enclosed has this day been forwarded via electronic mail to the SEC Distribution List.

Very truly yours,

DONAHUE, TUCKER & CIANDELLA, PLLC

John J. Ratigan
Jratigan@dtclawyers.com

JJR:nes
Enclosure

cc: Town of Newington
SEC Distribution List (via e-mail)

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THE STATE OF NEW HAMPSHIRE

BEFORE THE

SITE EVALUATION COMMITTEE

DOCKET NO. 2015-04

Application of Public Service Company of New Hampshire

d/b/a Eversource Energy

For a Certificate of Site and Facility

PREFILED DIRECT TESTIMONY OF ERIC WEINRIEB

ON BEHALF OF THE TOWN OF NEWINGTON

INTRODUCTION/OVERVIEW

Q. Please state your name and address.

A. Eric David Weinrieb, 9 Middle Road, Portsmouth, NH 03801

Q. Please describe your educational and professional employment experience.

A. I attended the University of New Hampshire and received a bachelor of science degree in Civil Engineering in 1985. I have worked as a civil engineer in various positions each with more responsibility for the Kimball Chase Company, Piscataqua Builders, and Appledore Engineering, Inc. In 1995, Altus Engineering, Inc. was founded. I have been the President and a partner since its inception.

Q. Do you provide engineering consulting services to the Town of Newington, if so, please describe this work.

A. Altus Engineering, Inc. performs various civil engineering duties for the Town of Newington. We review site plan and subdivision applications for the Planning Board. Our services include review of plans for technical merit and compliance with the local regulations, constructability, and provide technical explanations of the designs. We also provide site monitoring of the private development projects that are approved by the Planning Board to assure general compliance with the design and assurance that future roadways are constructed to Town standards for future acceptance by the Town.

Additionally, we provide civil engineering design construction oversight to the Board of Selectmen for infrastructure improvement projects within the town including but not limited to:

- Reconstruction of the municipal tennis courts;
- Reconstruction of the dam at Motts Pond;
- Roadway reconstruction projects;
- New Public Works garage ;
- Expansion to the library;
- Reconstruction/rehabilitation of Brickyard Way and Gundalow Landing;
- Assist the Board of Selectmen on accepting Woodbury Avenue from NHDOT.

Q. Have you had experience supervising municipal road construction and road restoration work in New Hampshire? In Newington? If so, please describe this experience.

A. Yes. Altus oversees the construction of the new roadways in both Newington and Greenland, NH. We have also overseen the construction of roadways in Portsmouth, Newton and Raymond, NH. Depending on the project, our design, supervision, and oversight varies. Recently, we were responsible for the redesign of West Road in Portsmouth. This project involved drainage improvements, and full roadway rehabilitation. We also were on-site full time to monitor the construction activities.

Currently for the Town of Newington, we have 800 linear foot roadway realignment out to bid, with construction expected to start this summer.

Also current, Altus is designing a public-private streetscape project with the City of Portsmouth and The Music Hall on Chestnut Street in Portsmouth. The project plans and specifications have been completed. The City is reviewing the final documents and the documents will be available for bidding in the next couple of weeks. Construction is scheduled to start immediately following Labor Day Weekend. Altus will provide full construction oversight and construction administration.

Depending on the project and the structure of the contract, Altus may be responsible for the full design, permitting, bidding and construction administration. Other projects such as subdivisions, Altus will be responsible for construction monitoring.

Q. Are you aware that the Town of Newington through its Selectmen has adopted a set of standards to regulate the work of those persons who would excavate within the Town's roads?

A. Yes.

Q. What is the purpose of having such roadway excavation and restoration standards?

A. The Town's greatest assets after its residents is its infrastructure. The protection of the roadway system against substandard construction and restoration activities is critical to preserving and extending the service life of the Town's roadways.

Q. Do Newington's roadway excavation and restoration standards include the requirement of onsite inspection by the Town's engineer at the applicant's expense?

A. Yes.

Q. Can you please explain why onsite inspection is necessary?

A. As a design consultant with over 30 years of experience, it is clear that even the best sitework contractors need oversight to ensure that proper construction techniques are utilized at all times during construction and restoration.

Q. Are you aware that the Town of Newington's roadway excavation and restoration standards require the person performing excavation and restoration work to post a performance guarantee acceptable to the Board of Selectmen?

A. Yes.

Q. Why is that required?

A. Even with full time site work construction monitoring, unintended and inappropriate construction can occur. Sometimes it could be a defective pipe that fails or a void during backfill that is unseen. Often these inadequacies turn up after a period of time has elapsed. Without a bond, the Town would have no financial recourse to insure that the deficiencies are remedied immediately.

Q. In your experience, have you had to work with towns to either threaten, to draw upon, or to draw upon such performance guarantees to pay for repair or restoration work?

A. Several years ago, we had a situation in Newton, NH where the roadway base course failed prior to the wearing course construction. Altus was not involved in the initial construction oversight. We came in to assist the Town for design remediation. The cost for the remediation exceeded the bond amount. Fortunately, the contractor did not default on the bond and they completed the work without incident.

Q. Are you familiar with this project's excavation work that will be required within the Town of Newington's roads and on adjacent private property?

A. I am familiar with the project. I have performed a preliminary review of the design documents.

Q. Can you please explain the challenges presented by the excavation within the Gundalow Landing right-of-way.

A. The Brickyard Lane Gundalow Landing Subdivision was approved in and constructed in the early 1980's. This was a time when construction site monitoring for subdivision roads was suspect. The underlying soils in this area are silts and clays. By the early 2000's, the majority of the roadway system was in failure. The Town of Newington hired Altus to oversee the rehabilitation and reconstruction of the roadway system. During the reconstruction in 2007/2008, the subgrade soils became saturated and unstable. Additional precautions had to be undertaken to stabilize the roadway, including the installation of a geotextile.

Future excavation in the right-of-way will potentially cause similar problems. Additionally, large construction vehicles maneuvering in the roadway could cause premature failure of the pavement system and more than likely will cause a reduction in the service life.

Q. Are you aware that property owners have expressed concerns about restoration of their lawns (some of which are within the Town's right-of-way and some of which are within the easement areas granted to Eversource by the property owner)?

A. I am sure that many residents are concerned about the disturbance of their property and how it will be restored; which in turn means this is an important issue for the Selectmen because the project impacts to lawns and yards arises from work with the Town's road network – for which the Selectmen are ultimately responsible.

Q. Can you explain what those concerns are?

A. It can be a difficult task restoring a lawn or yard to its pre-construction condition. Quite often if there are not strict guidelines in place coupled with oversight of the construction activities to ensure that the restoration is acceptable to the Town and individual homeowner, problems can occur. Compaction and proper grading can be issues. It is hard for a contractor to regrade a vegetated area and leave it in a condition so that the location of the trench is not noticeable. The other substantial issue is matching lawn seed mixtures. Every lawn has a unique seed mixture and one mix does not fit all. The contractor needs to ensure that they have the capabilities to work with the homeowners to ensure that when restoration work is complete, no one will see where the construction activities occurred. The key to successful lawn and yard restoration begins with stockpiling on site the original excavated loam and then utilize that loam to restore it to the pre-existing loam depth.

Q. Why is it a requirement of the Town of Newington that Eversource and its contractors stockpile the excavated loam from the Town's right-of-way and from the adjacent property owner's property onsite?

A. This question relates directly to the question above. If you do not replace the excavated loam on a lawn no matter how hard you try to match the seed mixture, the grass will grow in differently.

Q. Can you explain if these challenges and concerns underscore the requirement for onsite inspection?

A. It has been our experience as civil engineers that when there is construction oversight, the contractor is less likely to take shortcuts. In other words, when the owner's representative engineer is on-site, the contractor follows the plans and specifications. With oversight present, bedding and select materials are placed correctly, trenches are compacted properly, and patches are properly sealed.

Q. Are you familiar with the use of blasting as a technique that is used in roadway construction and excavation?

A. Yes.

Q. Can you please explain some of the challenges to public safety and to the protection from property from damage that such blasting can present?

A. Most public safety issues and protection of property can easily be overcome with pre-blast surveys and proper techniques during blasting. Pre-blast surveys provide a baseline for both the contractor and the homeowner that establishes the conditions prior to the blasting events.

Q. Are you aware that the Town of Newington has adopted regulations with respect to blasting, and that the Fire Chief is the Newington public official who issues blasting permits?

A. Yes.

Q. Are you familiar with the damage that can be caused to public roads arising from heavy loads traveling across such roads?

A. Yes.

Q. Are you aware that the NH legislature has authorized Town Selectmen in N.H. RSA 231:190 to adopt both temporary and year round weight limits to protect local roads from damage.

A. Yes.

Q. Are you aware that the Newington Selectmen, with the assistance of a geotechnical engineer, have adopted maximum vehicle weight limits for roads maintained by the Town?

A. Yes.

Q. In your experience, have you seen roads that have been substantially damaged as a result of heavy loads? If so, please explain.

A. Yes, I have seen roads become prematurely deteriorated due to heavy loads. I am not a geotechnical engineer, however, I generally understand why heavy loads deteriorate roadways. The deterioration can occur in different ways. When slow moving loaded constructed vehicles turn their wheels, they can grind into the pavement and rip it. Repeated heavy weight on a roadway can cause the pavement or subgrade to fail. A common observation is at traffic signals where you see rutting in the travel lanes.

Q. Are you familiar with geotechnical engineering techniques that involve a before and after set of tests or observations that help determine whether damage has indeed occurred to a roadway as a result of heavy load travel over a Town road?

A. It is understood that heavy loads reduce the service life of a roadway. At the end of a construction period, these effects are not often seen until long after the project has been completed. To monitor these types of reduced service life, a geotechnical engineer should complete subsurface evaluations to estimate the service life and the impacts from increased usage.

Q. The Site Evaluation Committee must make findings that include: “the site and facility will not unduly interfere with the orderly development of the region” and “the site and facility will not have an unreasonable adverse effect on....public health and safety.” Can you please comment on how a requirement that Eversource observe Newington’s Regulations of Excavations in Town Streets and Right-of-Way, how observe of Newington’s Blasting Ordinance and how the observance of maximum weight limits adopted by the Selectmen for the use of Newington’s roads will advance the orderly development of the region and protect public health and safety?

A. These regulations that I’ve been discussing are each central to the concepts of orderly development and public health and safety. Roads are complicated things to build. To excavate and disturb them and then to restore them to their prior condition so they function seamlessly when the restoration work is done, and for years into the future, is also a complicated task. It requires experienced, professional work by the contractor, it requires timely inspection at the necessary intervals during the reconstruction, and it requires a performance guarantee in the event the work done fails. Roads are the backbone of any community, and the Newington

Selectmen have adopted a set of Roadway Excavation Regulations that serve the community well and which all persons who excavate within the Town road system must observe.

The Selectmen also have the independent statutory authority to adopt roadway weight restrictions. The legislature has long recognized that town roadways simply are not built to the standards of inter-state highways, and thus there are sound reasons for the Selectman to exercise their authority to restrict road use, or to permit it with conditions and performance guarantees that will protect the community's long-standing investments in its road network. Unchecked, inappropriate use of town roads can cause them to break down suddenly, especially when combined with extreme weather events. A municipal road network that is performed well is one of the hallmarks of orderly development, and is a backbone for ensuring public health and safety not only for the traveling public, but for police, fire and ambulance responders, who often must respond in haste.

Similarly, blasting regulations protect not only persons from injury due to flying debris, but the shock waves from blasting can crack building foundations and damage water supply wells. The observance of Newington's blasting regulations is designed to protect the public from these risks, and to insure that there is a remedy to the public if damage occurs.