

# ADDENDUM NO. 2

## 2017 - Trout Brook Road Bridge Replacement

Essex County, NY

May 8, 2017

### TO ALL HOLDERS OF BIDDING DOCUMENTS:

This Addendum, issued to bid document holders of record, indicates clarifications to the bid documents for the *2017 - Trout Brook Road Bridge Replacement* project. All clarifications described herein shall be incorporated into the Contractor's bid proposal. This Addendum is part of the Contract Documents. Adjustments required by each item shall be understood to apply to all document references affected by the clarifications described.

1. **General:** A Pre-Bid meeting was held for the project at the site on April 26, 2017 at 9:00 AM. Minutes from the meeting are enclosed and are a part of this Addendum and the Contract Documents.
2. **General:** A copy of the Geotechnical Report for the project is attached to this Addendum for reference only. This report is provided for informational purposes and shall not be considered to be part of the contract documents. If distributed to others by the bidder or contractor, it must be delivered in its entirety only.

It is the bidder's responsibility to determine if the information contained in this geotechnical report is adequate for bidding purposes. The bidders may make their own investigations, tests and analyses for use in bid preparation if additional information is required. Contractors will not be relieved of any of their obligations for performance of the work for the project, nor shall they be entitled to any additional compensation on the premise of differing subsurface conditions or soils types which may be encountered.

Individual subsurface boring logs were prepared based upon the visual classifications and laboratory testing. The individual subsurface logs and keys explaining the terms used in their preparation are presented in the geotechnical report and should be reviewed for a description of the conditions encountered at the specific test boring locations. It should be understood that conditions are only known at the specific depths and locations sampled. Conditions at other depths and locations may differ. Determinations of earthwork quantities for bidding must not rely solely on the soil strata thicknesses measured at the

discrete test boring locations completed for this investigation. The bidder should perform their own explorations as needed to obtain representative thicknesses of soil layers and strata as required to prepare their bids for the work.

3. **General:** The Proposal section of the bidding documents has been revised to include descriptions of Contingency Allowance #1 and Contingency Allowance #2 to account for rock removal and low-strength concrete fill work, respectively, as noted in General Note 11 on Drawing N-1. The attached revised Proposal section of the bidding documents shall replace the Proposal section included in the bidding documents and shall be used as a part of the bid submitted for the work.
4. **General:** The apparent low bidder for the project shall, prior to award of the contract, submit a Schedule of Values to the County for review which indicates the total cost of the work broken down by major tasks and work items.
5. **Regarding Drawing No. N-1: General Notes - Note 10,** at the end of the Note, ADD “ - Retaining a consultant to perform a field survey for presence of bats at the site prior to tree felling.”
6. **Regarding Drawing No. N-1: General Notes - Note 10,** at the end of the Note, ADD “ - Pavement striping at approach roadways to the new bridge.”
7. **Regarding Drawing No. N-1: General Notes - Note 11,** first sentence, DELETE “...for each bridge project...”.
8. **Regarding Drawing No. S-3: Sections 5/S-3 and 6/S-3,** the limit for select structural fill for backfilling of the abutment stemwalls and wingwalls shall extend to a vertical plane located a minimum horizontal distance of three (3) feet behind the ends of the heels of the wall footings.

END OF ADDENDUM NO. 2  
(attachments)

## **Pre-Bid Meeting Minutes**

### PRE-BID MEETING MINUTES

Report Date: May 4, 2017

Project: Trout Brook Road Bridge Projects

Attending: Carl B. Schoder, PE - Schoder Rivers Assoc.  
Robert Leveille - Essex Co. DPW  
Gary Olcott - Adirondak Concrete  
Chris Huchro - John W. Sheehan & Sons.  
Beth Friend - Friend Commercial Contracting Corp.  
Jeff Dziarcak - Winn Construction  
Donald Beaton- Luck Bros. Construction  
(Copy of attendance sheet is attached for information)

Distribution: Via posting on the Essex County Website as a part of Addendum No. 2 for access by all holders of bidding documents.

**A scheduled pre-bid meeting was held for the above referenced project on April 26, 2017 at 9:00 AM at the project site. The following items were discussed:**

1. Schoder noted that, in clarification of *Maintenance and Protection of Traffic Notes - Note 4* on Drawing N-1, the roadway shall remain open to traffic at all times. A one-way traffic flow pattern is anticipated once the temporary bridge is installed and while the temporary retaining wall indicated on Drawing C-1 required to facilitate the installation of the west temporary bridge abutment is under construction. The County will provide all detour signage, including the installation of one-way traffic and stop signs, at each approach roadway to the temporary bridge. The Contractor shall provide all temporary traffic controls and shall submit for review and approval a Maintenance and Protection of Traffic Plan for required traffic pattern changes on the roadway which are associated with the construction of the temporary retaining wall, temporary bridge approaches and for installation of the temporary bridge.
2. Schoder noted that the temporary retaining wall precast concrete Redi-Rock™ units indicated as to be provided by the County on the *Temporary Retaining Wall Section* on Drawing C-4 are located at the Essex County Department of Public Works (DPW) yard in the Town of Lewis, NY. The Contractor shall be responsible for transporting the units to the site and for return of the units to the DPW yard upon completion of the work. Loading of the units onto the Contractor's trucks at the DPW yard and off-loading of the returned units at the yard shall be by the County.
3. Schoder noted that, in clarification of *Tree Removal Notes - Note 2* on Drawing N-1, the County will separately retain a bat consultant to determine the presence or absence of bats on the site the night immediately before tree felling is performed.
4. The removal limits for bedrock are indicated on the *Bridge Elevation(Looking North)* on Drawing C-3. The contractor shall include rock removal to these limits in their bid in addition to an allowance for additional rock removal and the provision of low-strength concrete fill beyond these limits as required by *General Note 11* on Drawing N-1. Unit prices for additional rock removal and for providing and installing low-strength concrete fill will be requested in an Addendum to be issued by the County.
5. Leveille noted that an extension of the date for receipt of bids may be required pending final temporary easement coordination with property owners adjacent to the site. Notification of any changes in the project

bid date, if required, will be provided in an Addendum issued by the County.

6. The Geotechnical Report, including soil borings taken at the bridge site, will be provided for information only as a part of an Addendum for the project.
7. The County is coordinating with the overhead utility companies for relocation of the utility pole indicated on Drawings C-1 and C-2 and for a possible temporary power shut-down while the precast concrete sections are installed if adequate clearance to the overhead wires cannot be provided by relocation of the subject pole.
8. It is the responsibility of the Contractor to determine the location of appropriate sites for the disposal of waste materials and to verify that all disposal sites have the appropriate regulatory agency permits in place for the disposal of the construction waste and/or excess soil materials.
9. A discussion was held regarding the probable costs associated with the installation of the temporary bridge system for the project. Note that the County will not request these costs to be separately identified in the bids received for the project.

The meeting adjourned at 10:00 AM.

Respectfully submitted:



Carl B. Schoder, PE  
Principal

/attachment



## **Geotechnical Report**

### **Trout Brook Road over Minerva Stream**

**ALBANY AREA**

594 Broadway  
Watervliet, NY 12189  
Voice 518-266-0310  
Fax 518-266-9238

**BUFFALO AREA**

PO Box 482  
Orchard Park, NY 14127  
Voice 716-649-9474  
Fax 716-648-3521

May 11, 2016

Mr. Jim Dougan  
Essex County DPW  
8053 Route 9  
Elizabethtown, NY 12932

Re: Geotechnical Study  
Trout Road Bridge Over Minerva Stream  
Minerva, NY  
Dente File No. FDE-16-34

Gentlemen;

At your request, we completed a subsurface investigation and have prepared this geotechnical evaluation report for the Trout Road Bridge Over Minerva Stream located in the town of Minerva, New York. Presented herein is a summary of the subsurface investigation results and our recommendations to assist in planning for its replacement.

**PROJECT AND SITE DESCRIPTION**

As we understand it the existing bridge will be replaced with a new 2 lane steel bridge spanning across the Minerva Stream about 60 or so feet. The location of the bridge is shown on the attached portion of the Topographic Map of the site supplied to us with the test boring locations added together with the current and 1898 USGS topographic quadrangles for the area. These maps are provided to assist the reader in locating the site and reviewing the topography of the general area within which it exists.

**SUBSURFACE CONDITIONS**

Two test borings were completed at the approximate locations shown on the attached plan. As the borings were advanced, soil samples were recovered in general accord with the Standard Procedure for Penetration Test and Split-Spoon Sampling of Soil, ASTM D1586. At the first location investigated, where bedrock was encountered, core sampling was performed in general accord with ASTM D2113 procedures. Representative portions of the recovered soil and rock samples were visually classified by a geotechnician who prepared the attached subsurface logs.



It should be understood that the boring logs present a description of the conditions encountered on the date, specific location investigated, and the depths sampled. Conditions at locations and depths other than those investigated may differ, and these differences may impact upon the geotechnical recommendations. It should also be understood that conditions can change with time. The subsurface logs should be reviewed for the specific conditions encountered at the investigated locations.

Fill was encountered beneath the surface at both locations investigated. The fill consisted of firm to loose, brown fine to coarse grained sand and gravel. The fills extended to depths beneath the grades of about 2 to 7 feet.

Below these fill materials were brown fine sand some silt which extended to depths of about 4.5 feet at location B-1 and fine to coarse sand and gravel which extended to depths of about 11.5 feet at B-2.

Bedrock was encountered beneath these native soils at both locations. The core sample was classified as a gray, hard gneiss. The core recovery was 88% with a measured Rock Quality Designation of 72%.

In our opinion, the groundwater level will generally be at or near the water level in the brook throughout the year.

### **GEOTECHNICAL RECOMMENDATIONS**

In our opinion the planned bridge may be supported upon spread foundations seated upon the bedrock.

Based on the available subsurface information Seismic Site Class B should be used in the design.

Dependent upon brook levels during construction, the excavations planned will penetrate saturated soils and groundwater, which will coincide with the brook levels in the immediate project area. It may be necessary for the contractor to install sheet piles, plates, sand bags, or to grout the overburden soils or the interface of the soil and the plates/sheets to control groundwater infiltration into the foundation excavations. Dependent upon the success of these measures, common sump and pump techniques should be capable of control of the water table at this site. Alternatively, the foundations can be placed as a tremie pour.

The excavation design should meet the requirements of 29 CFR Part 1926 Occupational Safety and Health Standards - Excavations for Type C Soils.

The structural fill used to backfill the abutment walls above the water table should consist of NYSDOT Section 304 Type 4 Processed Sand and Gravel material. The fill should be placed in loose layers no more than one (1) foot thick, and each layer be compacted to no less than 95 percent of the material's maximum dry density determined through the procedures of ASTM D-1557, the Modified Proctor Compaction test.

The following parameters are recommended for use in the design of the bridge foundations, abutments, and wing walls;

### **Soil Parameters**

1. Overburden Unit Weight (Total) = 125 lbs/Cu. Ft.
2. Friction Angle of Soil = 30 Degrees
3. Coefficient of Active Earth pressure = 0.33
4. Coefficient of At-Rest Earth pressure = 0.5
5. Coefficient of Passive Earth pressure = 3.0
6. LRFD Resistance Factor for Passive Resistance = 0.50

The foundations should be designed to bear upon the bedrock surface, however, it may prove difficult to install a cofferdam and dewater the soils above the bedrock as the rock is hard and sheetpiles will not create a good seal with the irregular rock surface. It may be necessary to perform cement or silicate grouting about the sheet piles to seal the interface and allow dewatering to proceed effectively. Alternatively, the foundations may be constructed through tremie placements.

The rock bearing foundation may be designed for a nominal rock bearing resistance of 30 tons per square foot (tsf) and an LRFD resistance factor of 0.60. The unfactored coefficient of friction between the concrete and bedrock may be assumed equal to 0.70. Settlement of the foundations should be negligible.

Uplift and overturning loads may be resisted by the weight of the foundation and if necessary, rock anchors. The rock anchors may be designed on the basis of an allowable bond stress between the bedrock and annulus grout equal to 100 pounds per square inch (psi). The anchors should be post-tensioned, double corrosion protected and designed and installed in general accord with the "Post Tensioning Institute Recommendations on Rock and Soil Anchors." A unit weight of 160 pcf can be assumed for the bedrock within the zone of influence of the anchor(s).

At least one anchor should be performance tested to verify the suitability of the design parameters and enable modifications to be made prior to installation of the remaining anchors. The performance tests should be made by loading the anchor and measuring its elongation to the nearest 0.001 inch per the recommendations from Section 3.7.1 of the Post Tensioning Institute publication. After the performance test has been evaluated and any modifications in anchor design made, the remaining anchor installations can proceed. All anchors should be proof-tested per Section 3.7.2 of the Post Tensioning Institute publication.

### **CLOSURE**

This report was prepared for specific application to the project site and the construction planned. It was prepared on the basis of a limited number of investigated locations at the site. Subsurface conditions at other than the investigated locations may be different. We should be allowed the opportunity to review appropriate plans and specifications prior to their release for bidding. The Geotechnical Engineer should be retained to observe and test earthwork and bearing grades during construction. This

report was prepared using methods and practices common to Geotechnical Engineering in the area at the time, no other warranties, expressed or implied, are made.

A sheet entitled "Important Information about your Geotechnical Engineering Report" prepared by the Association of Engineering Firms Practicing in the Geosciences is attached to this report. This sheet should never be separated from this report and be carefully reviewed as it sets the only context within which this report should be used.

We appreciate the opportunity to be of service. Should questions arise or if we may be of any other service, please contact us at your convenience.

Yours truly,  
Dente Engineering, P.C.



Fred A. Dente, P.E.  
President



# Important Information about This

# Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

## Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply this report for any purpose or project except the one originally contemplated.*

## Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an

assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by:* the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

## Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

## A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Constructors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help

others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Environmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

### **Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance**

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your GBC-Member geotechnical engineer for more information.



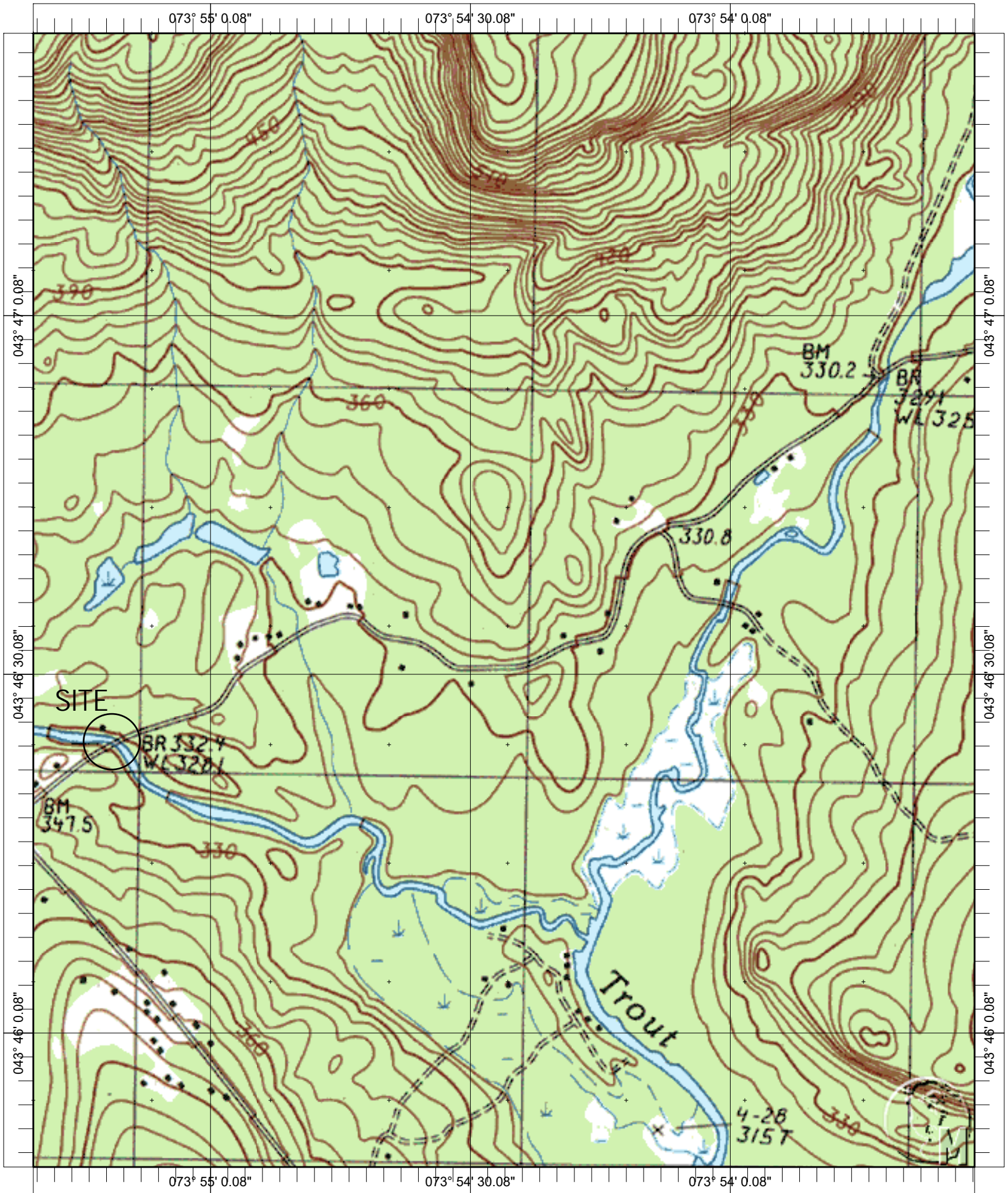
8811 Colesville Road/Suite G106, Silver Spring, MD 20910

Telephone: 301/565-2733 Facsimile: 301/589-2017

e-mail: [info@geoprofessional.org](mailto:info@geoprofessional.org) [www.geoprofessional.org](http://www.geoprofessional.org)

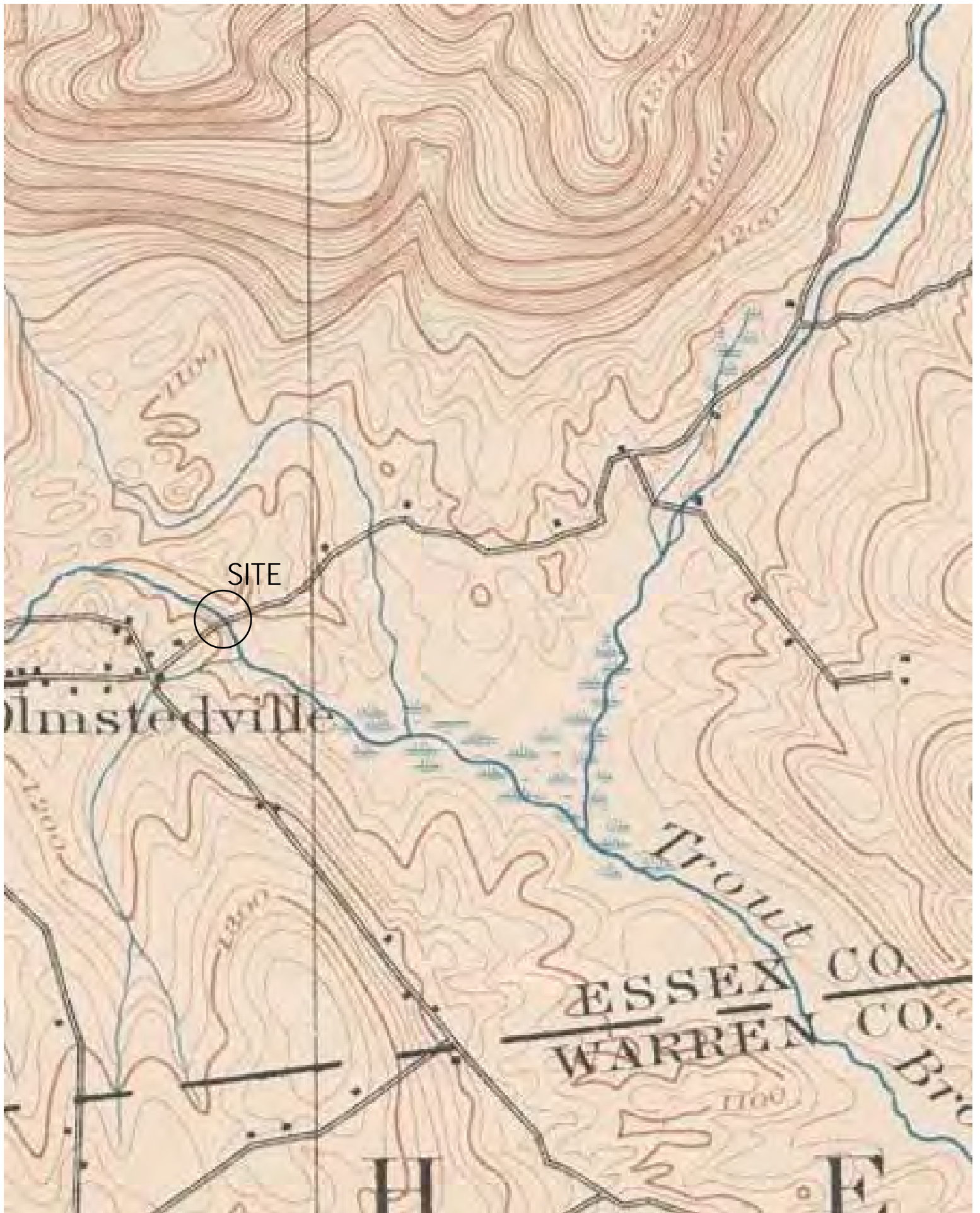
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Name: SCHROON LAKE  
 Date: 5/10/116  
 Scale: 1 inch equals 1000 feet

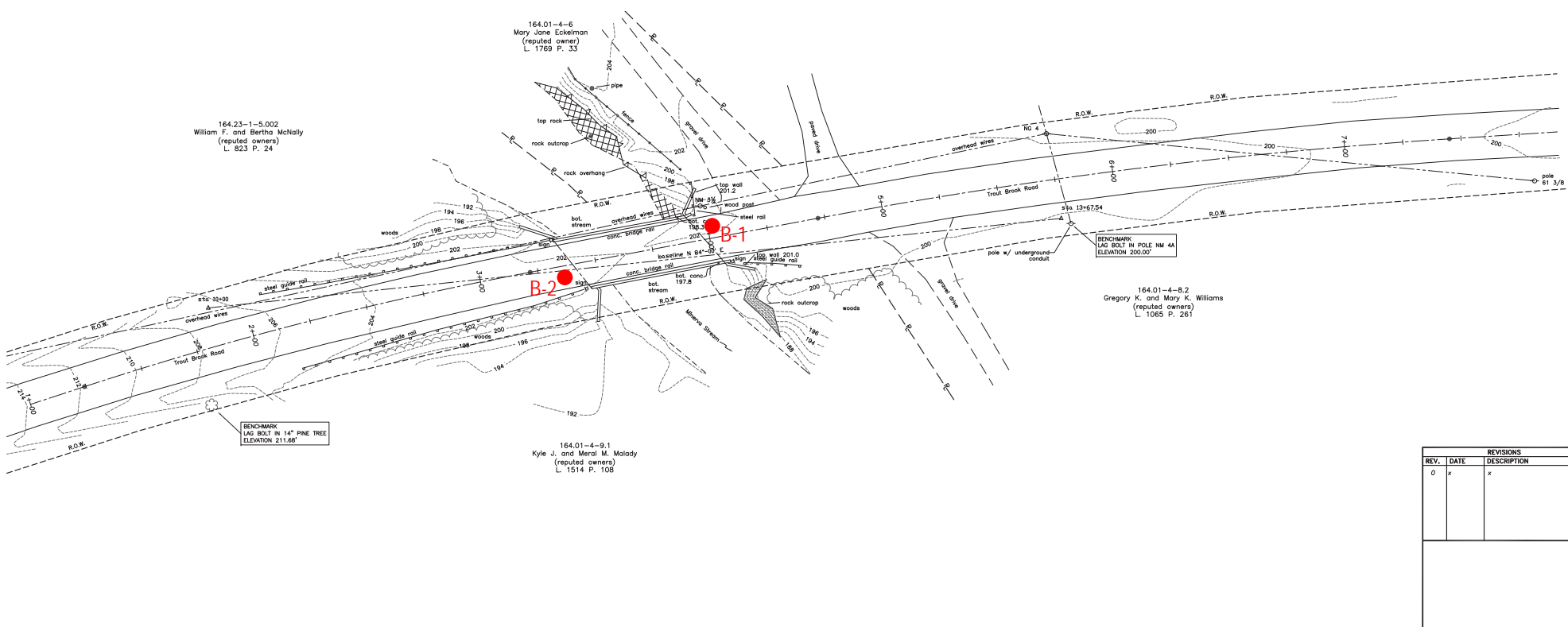
Location: 043° 46' 36.3" N 073° 54' 26.2" W  
 Caption: TROUT BROOK ROAD  
 OLMSTEDVILLE, NY  
 FDE-16-34



Trout Brook Road Bridge over the Minerva Stream, Olmstedville, New York 1897







164.23-1-5.002  
William F. and Bertha McNally  
(reputed owners)  
L. 823 P. 24

164.01-4-6  
Mary Jane Eckelman  
(reputed owner)  
L. 1769 P. 33

164.01-4-8.2  
Gregory K. and Mary K.  
(reputed owners)  
L. 1065 P. 261

164.01-4-9.1  
Kyle J. and Meral M. Malady  
(reputed owners)  
L. 1514 P. 108

BENCHMARK  
LAG BOLT IN 14" PINE TREE  
ELEVATION 211.68'

BENCHMARK  
LAG BOLT IN POLE NM 4A  
ELEVATION 200.00'

**EXISTING SITE PLAN**  
1"=20'-0"

REV.		DATE		REVISIONS
0	x			x

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

**SCHODER RIVERS ASSOCIATES**  
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Evergreen Professional Park  
453 Dixon Road, Suite 7, Bldg. 3  
Queensbury, New York 12264  
(518) 767-0417, FAX: (518) 767-0513

SCALE: AS SHOWN | DRAWN BY: SRA  
DATE: 5/9/16 | ENG. BY: JGL  
PROJ. NO.: 15-880.08 | CHK'D BY: CBS

CLIENT NAME  
ESSEX COUNTY DEPARTMENT  
OF PUBLIC WORKS  
ELIZABETHTOWN, N.Y.

DRAWING TITLE  
TROUT BROOK RD  
OVER MINERVA CREEK  
BRIDGE REPLACEMENT

EXISTING PLAN

DRAWING NO. | SHT. 1 OF 1  
REV. -

**SURVEYED BY**  
DAVID F. BARRASS  
**LAND SURVEYOR**  
5 MAPLE STREET  
CORINTH, NEW YORK

● Approximate Soil Boring Locations



## INTERPRETATION OF SUBSURFACE LOGS

The Subsurface Logs present observations and the results of tests performed in the field by the Driller, Technicians, Geologists and Geotechnical Engineers as noted. Soil/Rock Classifications are made visually, unless otherwise noted, on a portion of the materials recovered through the sampling process and may not necessarily be representative of the materials between sampling intervals or locations.

The following defines some of the terms utilized in the preparation of the Subsurface Logs.

### SOIL CLASSIFICATIONS

Soil Classifications are visual descriptions on the basis of the Unified Soil Classification ASTM D-2487 and USBR, 1973 with additional comments by weight of constituents by BUHRMASTER. The soil density or consistency is based on the penetration resistance determined by ASTM METHOD D1586. Soil Moisture of the recovered materials is described as DRY, MOIST, WET or SATURATED.

SIZE DESCRIPTION		RELATIVE DENSITY/CONSISTENCY (basis ASTM D1586)			
SOIL TYPE	PARTICLE SIZE	GRANULAR SOIL		COHESIVE SOIL	
BOULDER	> 12	DENSITY	BLOWS/FT.	CONSISTENCY	BLOWS/FT.
COBBLE	3" - 12"	LOOSE	< 10	VERY SOFT	< 3
GRAVEL-COARSE	3" - 3/4"	FIRM	11 - 30	SOFT	4 - 5
GRAVEL - FINE	3/4" - #4	COMPACT	31 - 50	MEDIUM	6 - 15
SAND - COARSE	#4 - #10	VERY COMPACT	50 +	STIFF	16 - 25
SAND - MEDIUM	#10 - #40			HARD	25 +
SAND - FINE	#40 - #200				
SILT/NONPLASTIC	< #200				
CLAY/PLASTIC	< #200				

SOIL STRUCTURE		RELATIVE PROPORTION OF SOIL TYPES	
STRUCTURE	DESCRIPTION	DESCRIPTION	% OF SAMPLE BY WEIGHT
LAYER	6" THICK OR GREATER	AND	35 - 50
SEAM	6" THICK OR LESS	SOME	20 - 35
PARTING	LESS THAN 1/4" THICK	LITTLE	10 - 20
VARVED	UNIFORM HORIZONTAL PARTINGS OR SEAMS	TRACE	LESS THAN 10

Note that the classification of soils or soil like materials is subject to the limitations imposed by the size of the sampler, the size of the sample and its degree of disturbance and moisture.

## ROCK CLASSIFICATIONS

Rock Classifications are visual descriptions on the basis of the Driller's, Technician's, Geologist's or Geotechnical Engineer's observations of the coring activity and the recovered samples applying the following classifications.

CLASSIFICATION TERM	DESCRIPTION
VERY HARD	NOT SCRATCHED BY KNIFE
HARD	SCRATCHED WITH DIFFICULTY
MEDIUM HARD	SCRATCHED EASILY
SOFT	SCRATCHED WITH FINGERNAIL
VERY WEATHERED	DISINTEGRATED WITH NUMEROUS SOIL SEAM
WEATHERED	SLIGHT DISINTEGRATION, STAINING, NO SEAMS
SOUND	NO EVIDENCE OF ABOVE
MASSIVE	ROCK LAYER GREATER THAN 36" THICK
THICK BEDDED	ROCK LAYER 12" - 36"
BEDDED	ROCK LAYER 4" - 12"
THIN BEDDED	ROCK LAYER 1" - 4"
LAMINATED	ROCK LAYER LESS THAN 1"
FRACTURES	NATURAL BREAKS AT SOME ANGLE TO BEDS

Core sample recovery is expressed as percent recovered of total sampled. The ROCK QUALITY DESIGNATION (RQD) is the total length of core sample pieces exceeding 4" length divided by the total core sample length for N size cored.

### GENERAL

- Soil and Rock classifications are made visually on samples recovered. The presence of Gravel, Cobbles and Boulders will influence sample recovery classification density/consistency determination.
- Groundwater, if encountered, was measured and its depth recorded at the time and under the conditions as noted.
- Topsoil or pavements, if present, were measured and recorded at the time and under the conditions as noted.
- Stratification Lines are approximate boundaries between soil types. These transitions may be gradual or distinct and are approximated.

**DENTE ENGINEERING, P.C.**

**SUBSURFACE LOG B-1**

**PROJECT:** Trout Brook Bridge @ Minerva Stream

**DATE**

START : 5/8/16

FINISH: 5/8/16

**LOCATION:** Olmstedville, New York

**METHODS:** 3 1/4" Hollow Stem Augers, ASTM

**CLIENT:** Essex County DPW

D1586 Drilling Methods with Auto Hammer

**JOB NUMBER:** FDE-16-34

**SURFACE ELEVATION:** +/- 202.0'

**DRILL TYPE:** CME 45C

**CLASSIFICATION:** O.Burns

SAMPLE		BLOWS ON SAMPLER					CLASSIFICATION / OBSERVATIONS	
DEPTH	#	6"	12"	18"	24"	N		
							+/- 5" Asphalt, +/- 2" Base	
	1	10	11				<b>FILL:</b> Brown/Gray Mottled F-M SAND, Little Coarse Sand and Gravel ( <b>MOIST, FIRM</b> ) Brown/Gray Mottled Fine SAND, Some Silt, Little Gravel ( <b>MOIST, VERY COMPACT</b> )	
	2	12	12	5	5	16		
5'	3			50/.4'	50/0	62+		
		Core Run #1 4.5'-9.5' REC=88% RQD=72%						White/Black, Very Hard GNEISS
10'							End of boring 9.5' depth.	
15'								
20'								
25'								
30'								

**DENTE ENGINEERING, P.C.**

**SUBSURFACE LOG B-2**

**PROJECT:** Trout Brook Bridge @ Minerva Stream

**DATE**

START : 5/8/16

FINISH: 5/8/16

**LOCATION:** Olmstedville, New York

**METHODS:** 3 1/4" Hollow Stem Augers, ASTM

**CLIENT:** Essex County DPW

D1586 Drilling Methods with Auto Hammer

**JOB NUMBER:** FDE-16-34

**SURFACE ELEVATION:** +/- 202.0'

**DRILL TYPE:** CME 45C

**CLASSIFICATION:** O.Burns

SAMPLE		BLOWS ON SAMPLER					CLASSIFICATION / OBSERVATIONS
DEPTH	#	6"	12"	18"	24"	N	
							+/- 5" Asphalt, +/- 3" Base
	1	5	3				<b>FILL:</b> Brown F-M SAND, Little Silt, Coarse Sand, and Gravel, trace gray mottling Grades Some Coarse Sand and Gravel  Similar with rootlets noted  ----- <b>(MOIST, LOOSE TO FIRM)</b> ----- Brown F-C SAND and GRAVEL, Little Silt  ----- <b>(MOIST, COMPACT TO V. COMPACT)</b> -----
				2	2	5	
	2	12	8				
5'				3	4	11	
	3	1	1				
				16	7	17	
	4	21	3				
				28	8	31	
10'	5	12	12				
				20	7	32	
	6	50/.4'				50+	
							End of boring 11.5' depth with auger refusal. Split spoon refusal occurred at 11.4' depth.
15'							
20'							
25'							
30'							





View west across the bridge



View east across the bridge



## **Revised Proposal Section**

**PROPOSAL**

Date:

Proposal of \_\_\_\_\_

to furnish and deliver all labor, supervision, materials, and equipment and perform all work in accordance with the Specifications for *Trout Brook Road Bridge Replacement* in the Town of Minerva, New York for the following lump sum cost.

The owner, Essex County, is tax-exempt. Do not include sales tax in bid amounts.

The undersigned bidder has carefully examined the contract documents, site of the work, is familiar with existing conditions, and will provide all necessary insurance, bonds, machinery, tools, apparatus, false work and other means of construction, and do all the work and furnish all the materials called for by said contract according to the following bid, including all labor, supplies and equipment, permits, fees, overhead and profit for the following Lump Sum price.

The Lump Sum price is to be shown in both words and figures. In the event of discrepancies, the amount shown in words shall govern. All items are to be furnished and installed in place complete.

**Base Bid**

\_\_\_\_\_  
(Amount in Words)

\_\_\_\_\_  
(Amount in Figures)

Contingency Allowance #1 (To account for removal of additional rock of up to 10 cubic yards in accordance with Drawing N-1, General Note 11):

Price per cubic yard: \_\_\_\_\_  
(Amount in Words)

\_\_\_\_\_  
(Amount in Figures)

Contingency Allowance #1 price: \_\_\_\_\_  
(Amount in Words)

\_\_\_\_\_  
(Amount in Figures)

Contingency allowance #2 (To account for installation of up to 20 cubic yards of low-strength concrete fill in accordance with Drawing N-1, General Note 11):

Price per cubic yard: \_\_\_\_\_  
(Amount in Words)

\_\_\_\_\_  
(Amount in Figures)

Contingency Allowance #2 price: \_\_\_\_\_  
(Amount in Words)

\_\_\_\_\_  
(Amount in Figures)

TOTAL (Base Bid plus Contingency Allowances):

\_\_\_\_\_  
(Amount in Words)

\_\_\_\_\_  
(Amount in Figures)

The undersigned further understands that the contract will be awarded to the competent, qualified bidder submitting the lowest bid for the Total Bid.

ADDENDA ACKNOWLEDGEMENT

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____
_____	_____

The undersigned agrees as follows:

1. The total contract price bid shall be accepted as full compensation for the complete work subject to additions or deductions in quantity of work performed or changes agreed upon.
2. Within twenty (20) days from the date of "Notice of Acceptance" of the Proposal, to execute the contract and to furnish a satisfactory labor, material and performance bond in the amount of 100% of the contract price.

3. To execute the work as specified herein as soon as possible after notice of award.
4. To comply with requirements as to the conditions of employment, wage rates and hours set forth in the bidding documents.
5. Progress Payments will be made on a percentage of completion basis monthly.
6. 5% Retainage will be withheld until final approval of project(s).

Bidder: \_\_\_\_\_  
By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Dated: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Social Security/Federal ID No: \_\_\_\_\_  
Email: \_\_\_\_\_