



Quisenberry Arcari Architects, LLC  
318 Main Street  
Farmington, CT 06032

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(860) 677 – 4594 office

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FACSIMILE COVER PAGE

DATE : 06/08/15	JOB # : 1026 QA1346-07
RE: <b>710 Rowland Road Fairfield, CT</b>	
(CDBG-DR) & (OORR) Programs	
ADDENDUM #4	

**PLEASE COMPLETE SECTION BELOW AND FAX BACK TO 860-677-8534**

Received (Addendum #4)

CONTRACTOR : \_\_\_\_\_

SIGNED : \_\_\_\_\_ Date: \_\_\_\_\_

NUMBER OF PAGES INCLUDING COVER PAGE: 11

FROM: Rocco Petitto

If the attached is incomplete, kindly notify us at once

**Community Development Block Grant Disaster Recovery Program (CDBG-DR)  
Owner Occupied Rehabilitation and Rebuilding Program (OORR)**

**710 ROWLAND ROAD, FAIRFIELD, CT**

**Addendum # 04  
June 08, 2015**

**GENERAL / CLARIFICATIONS**

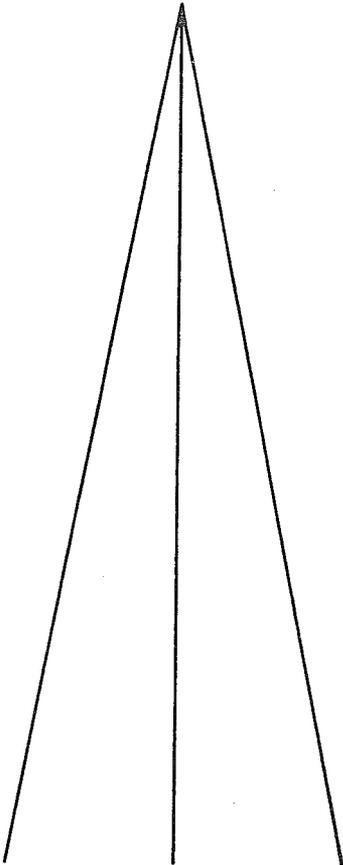
Boring report for 710 Rowland Road

**See Attached**

**END OF ADDENDUM #4**

# SOILTESTING, INC.

TO.....Quisenberry Arcari Architects, LLC..... DATE .....July 2, 2014.....  
ADDRESS .....318 Main Street, Farmington, CT 06032.....  
SITE LOCATION .....Proposed Alterations to Raise House, 710 Rowland Road, Fairfield, CT.....  
REPORT SENT TO .....Adam Tarfano, AIA.....  
SAMPLES SENT TO .....Storage. (Max. 60 days).....



90 Donovan Road  
Oxford, Connecticut 06478-1028  
203-262-9328

Branch Office:  
White Plains, New York 10607  
914-946-4850

JOB NO.  
**G96-9724-14**

Phone  
(203) 262-9328

Telefax  
(203) 264-3414



WHITE PLAINS, N.Y.  
(914) 946-4850

# SOILTESTING, INC.

90 DONOVAN ROAD - OXFORD, CONN. 06478-1028

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GEOTECHNICAL / ENVIRONMENTAL SUBSURFACE INVESTIGATIONS - Test Borings - Core Drilling  
Monitoring Wells - Recovery Wells - Direct Push/Probe Sampling  
UNDERPINNING - HELICAL PILES - SOIL NAILS



July 2, 2014

Quisenberry Arcari Architects, LLC  
318 Main Street  
Farmington, CT 06032  
860-677-4594

Attn: Adam Tarfano, AIA

Re: Proposed Alterations to Raise House  
710 Rowland Road  
Fairfield, CT

G96-9724-14

Dear Mr. Tarfano,

Enclosed are boring logs and location plan for the above referenced project site.

Also enclosed is a geotechnical report completed by The Geotechnical Department, LLC.

If you have any questions, please do not hesitate to contact us.

Very truly yours,  
**SOILTESTING, INC.**

James A. DeAngelis  
President

JAD:lg



<b>SOILTESTING, INC.</b> 90 DONOVAN RD. OXFORD, CT 06478 CT (203) 262-9328 NY (914) 946-4850	CLIENT: <b>Quisenbury Acari Architects, LLC</b>	SHEET <u>1</u> OF <u>1</u>
	PROJECT NO. <b>G96-9724-14</b>	HOLE NO. <b>B-1</b>
FOREMAN - DRILLER <b>MD/tt</b>	PROJECT NAME <b>710 Rowland Road</b>	BORING LOCATIONS per sketch
INSPECTOR	LOCATION <b>Fairfield, CT</b>	OFFSET
GROUND WATER OBSERVATIONS AT <u>7</u> FT AFTER <u>0</u> HOURS	CASING TYPE <b>HSA</b> SAMPLER <b>SS</b> CORE BAR	DATE START <b>6/6/14</b>
AT <u>  </u> FT AFTER <u>  </u> HOURS	SIZE I.D. <b>4 1/4"</b> <b>1 3/8"</b>	DATE FINISH <b>6/6/14</b>
	HAMMER WT. <b>140#</b> BIT	SURFACE ELEV.
	HAMMER FALL <b>30"</b>	GROUND WATER ELEV.

DEPTH	CASING BLOWS PER FOOT	SAMPLE					BLOWS PER 6 IN ON SAMPLER (FORCE ON TUBE)				CORE TIME PER FT (MIN)	DENSITY OR CONSIST	STRATA CHANGE DEPTH	FIELD IDENTIFICATION OF SOIL REMARKS INCL. COLOR, LOSS OF WASH WATER, SEAMS IN ROCK, ETC.
		NO	Type	PEN	REC.	DEPTH @ BOT	0-6	6-12	12-18	MOIST				
5	1	ss	24"	10"	2'0"	4	5			moist loose	4"	TOPSOIL		
	2	ss	24"	4"	4'0"	2	1			v moist/wet		drk brn organic SILT, sm FM sand brn soft SILT		
	3	ss	24"	0"	6'0"	1	11			v soft		no rec - drk brn organic SILT		
	4	ss	24"	18"	8'0"	1	5			wet stiff				
	5	ss	24"	16"	10'0"	7	12			wet stiff	8'0"	gry SILT, sm VFF sand		
10	6	ss	24"	19"	12'0"	15	19			wet		gry FC SAND & F GRAVEL brn FC SAND, sm F gravel		
						12	10			wet dense				
15	7	ss	24"	20"	17'0"	11	14			wet dense		brn FM SAND, lt C sand & F gravel brn FM SAND brn VF SAND, sm F sand, tr silt		
						20	27							
20	8	ss	24"	16"	22'0"	13	15			wet dense		brn VFF SAND, lt silt		
						17	29							
25	9	ss	24"	24"	27'0"	11	4			wet loose		brn FM SAND, lt silt		
						4	8							
30	10	ss	24"	24"	32'0"	4	6			wet compact		brn VFF SAND, lt silt, tr C sand		
						8	10							
35	11	ss	24"	24"	37'0"	5	7			wet compact	37'0"	SAME		
						9	14							
40												E.O.B. 37'0"		

**NOTE: Subsoil conditions revealed by this investigation represent conditions at specific locations and may not represent conditions at other locations or times.**

GROUND SURFACE TO \_\_\_\_\_ FT. USED \_\_\_\_\_ CASING THEN \_\_\_\_\_ CASING TO \_\_\_\_\_ FT. **HOLE NO. B-1**

A = AUGER UP = UNDISTURBED PISTON T = THINWALL V = VANE TEST

WOR = WEIGHT OF RODS WOH = WEIGHT OF HAMMER & RODS

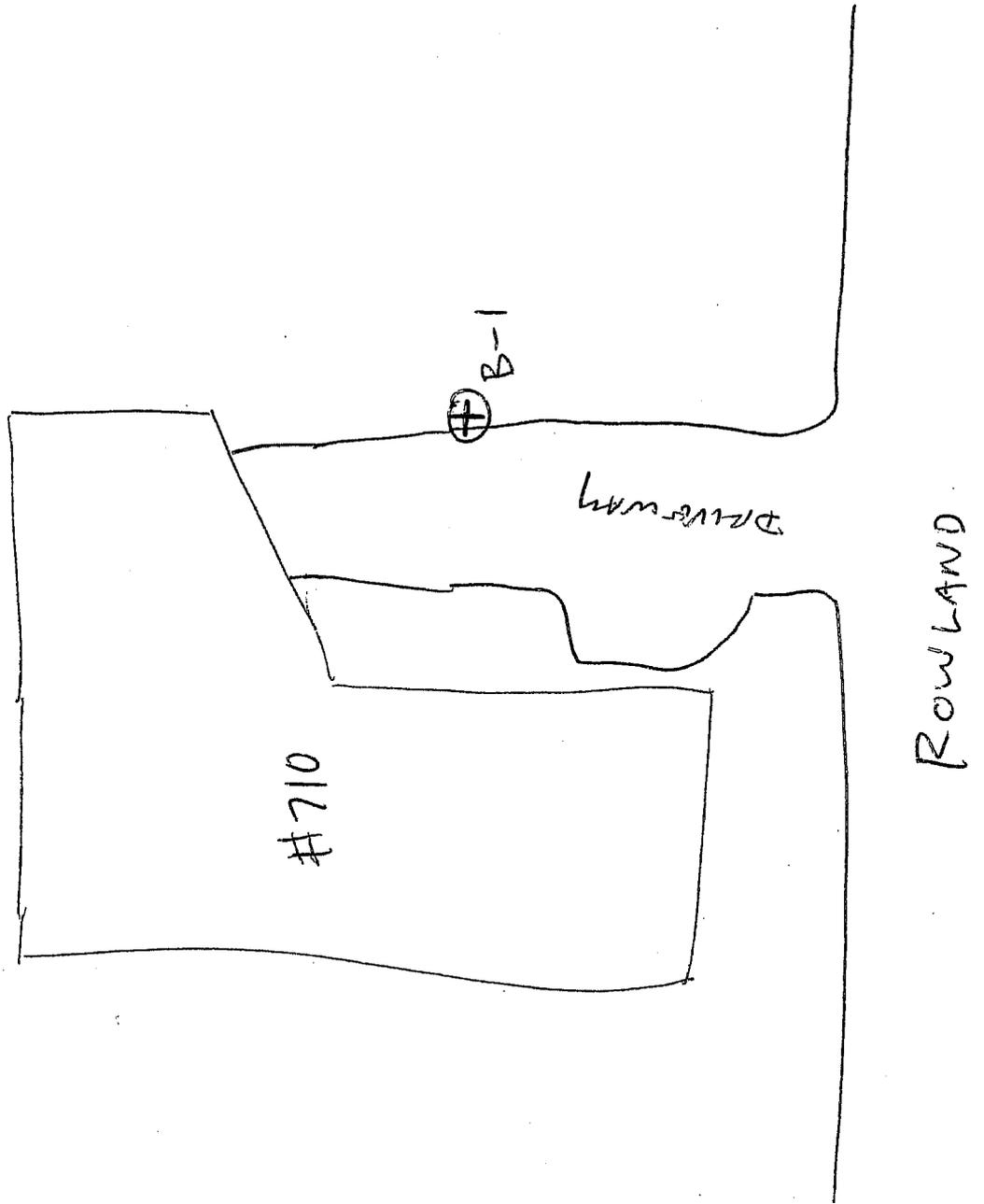
C = COARSE

SS = SPLIT TUBE SAMPLER H.S.A. = HOLLOW STEM AUGER

M = MEDIUM

PROPORTIONS USED: TRACE = 0 - 10% LITTLE = 10 - 20% SOME = 20 - 35% AND = 35 - 50%

F = FINE



JOB NO.  
**G96-9724-14**  
**SOILTESTING, INC.**  
90 Donovan Road  
Oxford, CT 06478

**Geotechnical Engineering Report**

**by**

**The Geotechnical Department, LLC**

**for**

**Soiltesting, Inc.**

**Dated: June 25, 2014**

**Quisenbury Acari Architects, LLC.**

**G96-9724-14**

# The Geotechnical Department, LLC

Consulting Engineers

41 Blanche Avenue, Demarest, NJ 07627

201-784-4444 • Fax: 201-768-0222

June 25, 2014  
Project No. 2054

Quisenberry Arcari Architects, LLC  
318 Main Street  
Farmington, Connecticut 06032

Attn: Adam Tarfano, AIA

Re: Geotechnical Engineering Report  
Proposed Alterations to Raise House  
710 Rowland Road  
Fairfield, Connecticut

This report is submitted as per our agreement with Soiltesting Inc. and the attached "Geotechnical Limitations." It includes our findings, conclusions and recommendations related to the design and construction for raising the house for future flood protection.

One (1) test boring was performed by Soiltesting, Inc. on June 6, 2014. The location plan and record sheet are attached as part of this report. This information was used in preparation of this report.

Based on our interpretation of field conditions and the scope of the project it was deemed unnecessary to perform laboratory soil tests to assist with the identification of soil and the evaluation of their engineering properties.

Subsurface conditions include soft organic silt with sand to a depth of eight (8) feet. Medium dense sand with silt and gavel continues the soil profile to the maximum depth of exploration, thirty-seven (37) feet.

Water was observed at a depth of seven (7) feet at the time the boring was completed.

The following were considered in developing the conclusions and recommendations of this report:

1. A rough sketch plan showing the house plan and boring locations.
2. The proposed work is to raise the existing building foundation for flood protection.
3. Differential settlement should not be greater than three-quarters (3/4) of an inch across the house footprint.
4. Design and construction shall be in accordance with the Connecticut Building Code (Code).

The in-place organic silt and sand is not suitable for the support of conventional spread footings. Spread footings bearing on the suitable soil below the organics or on quality compacted soil fill placed after removal of the organics are foundation alternatives. These alternatives, however, are considered impractical due to equipment access constraints, the quantity of excavation and backfill and the need for dewatering the excavation to allow construction.

Deep foundations are deemed an appropriate foundation alternative. Drilled-in piles could be installed with the tips bearing in the undisturbed medium dense sand system below the organic silt. Driven piles are not an option due to equipment access issues.

The following geotechnical design and construction recommendations are offered:

1. Use drilled-in pile foundations for support of the existing and/or altered house foundation.
2. Tabulated below are design recommendations for several typical pile sections. The capacities refer to the soil/pile interaction, not the structural capacity of the section performing as a column.

<b>Drilled-In Pile Type</b>	<b>Design Capacity (tons)</b>	<b>Installed Capacity* (tons)</b>
Grouted Pipe: 7" diameter	17	20
Auger (Helical)	9	12
Resistance Pier	8	10

*\* These values consider downdrag on the pile due to settlement of surrounding organic silt and sand.*

3. The pile tips should penetrate to a minimum depth of ten (10) feet below the existing site grades.
4. One (1) drilled-in pile should be load-tested in accordance with the ASTM D1143 Standard prior to installing the production piles.
5. The piles should be delivered to the project under a design-test-install type agreement. The design, testing and installation should be performed under the direction of a licensed engineer with experience with this type of work.
6. The project structural and geotechnical engineer should review the design, test results and installation records.

We trust these recommendations will allow you to complete the design and construction of the alterations.

Very truly yours,

THE GEOTECHNICAL DEPARTMENT, LLC

A handwritten signature in black ink, appearing to read "Thomas H. Otto", with a long horizontal line extending to the right from the end of the signature.

Thomas H. Otto, P.E.

Attachments: Geotechnical Limitations  
Boring Location Plan  
Boring Record Sheet

Cc: Soiltesting Inc.

# GEOTECHNICAL LIMITATIONS

## Explorations

- The analyses and recommendations submitted in this report are based in part upon the data obtained from subsurface explorations. The nature and extent of variations between and apart from these explorations may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.
- The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more erratic.
- Water level readings have been made in the drill holes at times and under conditions stated on the boring logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors occurring since the time measurements were made. More precise determinations of groundwater levels would require the installation of groundwater observation wells and water level readings taken over an extended period of time.

## Review

- In the event that any changes in the nature, design or location of the proposed building are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by this firm. Further, it is recommended that this firm be provided the opportunity for a general review of final design and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design and specifications.

## Construction

- It is recommended that Soiltesting, Inc. and this firm be retained to provide geotechnical engineering services during construction of the excavation and foundation phases of the work. This is to observe compliance with the design concepts, specifications, and recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to start of construction.

## Use of Report

- This report has been prepared for the exclusive use of Quisenberry Arcari Architects, LLC for specific application to the proposed construction at 710 Rowland Road in Fairfield, Connecticut in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.
- This report is for *design* purposes only and is not sufficient to prepare construction cost estimates or bids.