

NEPA ENVIRONMENTAL REVIEW REPORT

**Community Development Block Grant – Disaster Recovery
Owner Occupied Rehabilitation and Rebuilding Program**

**Site ID No. 1419
14 Hawthorne Street South (Unit A)
Greenwich, Connecticut**

June 2014

Ref. No. 104318/23/R01

Prepared for:

Merritt Construction Services, Inc.
1177 High Ridge Road
Stamford, CT 06905

Prepared by:



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1.0 - INTRODUCTION

Triton Environmental, Inc. (Triton) has prepared this National Environmental Policy Act (NEPA) evaluation for the property located at 14 Hawthorne Street South Unit A in Greenwich, Connecticut (the site) on behalf of Merritt Construction Services, Inc. (Merritt). The location of the site is depicted on Figure 1. The NEPA review is being prepared as a required component of the Community Development Block Grant – Disaster Recovery (CDBG-DR) program for properties impacted by Superstorm Sandy. The CDBG-DR program, run by the U.S. Department of Housing and Urban Development (HUD), provides funding to address repairs to certain impacted Connecticut properties. In order to receive funding from HUD, an environmental review of applicable properties is required.

The project is considered “categorically excluded” from NEPA. However, the project is still subject to additional statutory requirements. As such, Triton has completed the Statutory Checklist for state and federal laws, regulations, and Executive Orders (other than NEPA) in accordance with 24 CFR 58.5 and 58.6. In addition, Triton has completed specific testing at the site, as described in detail in this report.

1.1 - Proposed Site Modifications and Work Zone

The proposed work plan for the site includes complete replacement of the asphalt shingle roof and replacement of rotted wood decking as necessary. As such, the work zone as described by Merritt consists of the entire roof system of the dwelling.

2.0 - PRELIMINARY INSPECTION AND RESOURCE REVIEW

2.1 - Preliminary Site Inspection

As a preliminary step in the NEPA evaluation, Triton completed an initial inspection of the site, focused on the work zone described in Section 1.1. The inspection was completed on May 7, 2014, by Mr. Brian Sirowich of Triton, accompanied by Andrew Peters of Merritt.

During the inspection, the following items were noted within the work zone that required further evaluation:

- Suspect asbestos containing materials;
- Potential radon;
- Potential PCBs; and
- Potential mold.

Photographs of the work zone area are included as Appendix B. Painted surfaces were not observed within the work zone (roof).

2.2 - Preliminary Checklist Review

Following the initial site inspection, a preliminary statutory checklist review was completed in order to determine which items in the checklist did not apply to the site, and which items required additional evaluation and/or on-site surveys. As a component of the preliminary checklist review, Triton reviewed readily available resource maps, as well as online environmental databases. Copies of the maps reviewed are provided in Appendix A.

Based on the site inspection and the review of applicable public resource materials, each of the items identified on the Statutory Checklist have been assigned a code of “Not Applicable to This Project,” with the exception of the items identified below:

2.2.1 - Asbestos Containing Materials (Item 13D)

Based on the site inspection, potential asbestos containing materials was observed in the work zone.

2.2.2 - Radon (Item 13E)

Based on the Indoor Radon Potential Map of Connecticut published by the EPA (1997), the site is located in a moderate to high radon potential zone.

2.2.3 - Mold (Item 13F)

Based on the site inspection, visible mold was identified within the work zone.

2.3 - Additional Items (Not Included in Statutory Checklist)

Although not specifically listed on the Statutory Checklist, Triton identified the following additional potential issues associated with the project:

- Based on the site inspection, potential PCB containing building materials were observed in the work zone.

3.0 - WORK ZONE SURVEYS AND RESULTS

Based on the preliminary inspection of the work zone, Triton identified several items requiring further testing and evaluation as part of the environmental review.

3.1 - Asbestos Sampling

An asbestos survey was completed for the work zone on May 7, 2011. In accordance with the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation 40 CFR Part 61 (Subpart M), a property owner must ensure that a thorough inspection for asbestos-containing materials is completed prior to possible disturbance during renovation or demolition. A walk-through and inspection of the building was conducted by a Connecticut licensed inspector to identify suspect ACM. Once the location and quantity of each suspect ACM was documented, up to three representative samples of each suspect material was collected.

In accordance with EPA protocols, the samples of each suspect ACM were submitted to a state licensed laboratory and analyzed via the PLM method (EPA 600/R-93/116 Method). To avoid unnecessary sample analysis, the laboratory did not analyze duplicate homogeneous samples once asbestos was detected at concentrations greater than 1% in a related sample.

A total of three samples were collected from one homogeneous building material within the work zone (roofing shingles). The results indicated that none of the building materials contained asbestos greater than one percent which is considered non-asbestos containing. A roster of the building materials suspected of containing asbestos (and subsequent samples) is attached as Appendix C. The laboratory analytical report is attached as Appendix D.

3.2 - Airborne Radon Sampling

Radon gas is a product of the decay series that begins with uranium. It is produced directly from radium, which can be commonly found in bedrock that contains black shale and/or granite. Radon gas can migrate through the ground and enter buildings through

porous concrete or fractures and tends to accumulate in poorly ventilated basements. Long-term exposure to radon has been associated with lung cancer.

Triton conducted a radon assessment of the lowest livable space at the site (the first floor level). Two radon test kits were deployed (a sample and a duplicate) at the lowest level of the building on May 7, 2014 and allowed to sample radon levels for approximately 48 hours. The EPA has established the guideline of 4 pCi/L as an “elevated” indoor radon level. The laboratory indicated results of 3.1 pCi/L and 3.7 pCi/L for the subject site, both of which are below the EPA guideline of 4.0 pCi/L. Laboratory analytical results are attached in Appendix D.

3.3 - Mold Inspection

Triton completed a visual mold inspection of the work area on May 7, 2014. Mold was observed on the underside of the plywood roof deck in the attic. Photographs of the apparent mold are provided in Appendix B.

3.4 - PCB Evaluation

Given the age of the building, it is possible that PCB-containing materials (sealants, flashing) are present on the roof. However, due to access limitations, sampling was not conducted at the time of the field surveys. As indicated in Section 5.0, sampling is recommended as part of the project.

4.0 - CONTRACTOR BID ITEMS

Triton has completed building materials surveys within the proposed work area described by Merritt that have resulted in the identification of mold. The contractor will be required to address these items in accordance with all appropriate regulatory requirements and industry standards and guidelines as described below.

4.1 - Mold Abatement

Mold was observed within the work zone on the underside of the plywood roof deck in the attic. Mold may be present in other interior areas that could not be observed during the inspection (i.e. behind walls). To protect occupant and worker health, the mold within the work zone must be abated. Any porous materials containing visible mold that are encountered during the renovation should be removed in accordance local, state, and federal regulations including, but not limited to, with the guidelines put forward in the most recent version of the *Institute for Inspection, Cleaning, and Restoration Certificate (IICRC) Standard and Reference Guide for Mold Remediation* as well as the *Connecticut Guidelines for Mold Abatement Contractors*. The abatement contractor must provide credentials/adequate qualification documentation and a work plan for abatement work with its bid for review by Merritt and Triton. Clearance testing requirements will be determined by Merritt, the homeowner, and the State of Connecticut.

The above items are intended to provide professional contractors with the basis with which to provide a bid for abatement services and are not intended to serve as a formal bid specification or design documents.

5.0 - CONCLUSIONS AND RECOMMENDATIONS

Based on the results of NEPA evaluation and specific on-site surveys, it has been determined that this project cannot convert to Exempt per § 58.34(a)(12) at this time because one or more statutes/authorities require consultation or mitigation, as follows:

1. Polychlorinated Biphenyls (PCBs) – Given the age of the building, it is possible PCB-containing building materials could be present within the work zone such as sealants or mastic. During the inspection, Triton was not able to collect discrete samples from these materials due to access limitations. Triton recommends that suspect roof materials be tested prior to disposal during replacement of the roof.
2. Mold – Mold was observed the underside of the plywood roof deck in the attic. Additional mold impacted surfaces may be encountered during renovation in spaces that were inaccessible or not apparent during the inspection. To protect occupant and worker health, the mold must be abated by a qualified contractor. As such, Triton recommends that a competent person be present during the renovation work who is capable of identifying potential additional suspect materials. General precautions should be taken during the renovation process to avoid the potential spread of mold spores and to mitigate health and safety concerns.

The above items should be completed such that the project can transition to Exempt status per § 58.34(a)(12).

6.0 - LIMITATIONS

The tasks completed were performed specifically within the work zone that has been specified to Triton by the Merritt project manager (such zone may change as the project develops and re-inspection by Triton will be required). In addition, the scope of work was limited to those items that are part of the NEPA review process with the exception of PCB sampling, which was performed as an emergency concern regarding worker/occupant health and safety and for proper disposal practices. As such, Triton provides no warranty or opinion regarding conditions outside of the work area, or related to additional environmental conditions outside of the NEPA review process.

In some circumstances, Triton has relied upon available resource maps and/or visual observations to evaluate specific statutory items. In these circumstances, actual surveys have not been conducted. For example, a full wetland delineation and elevation survey with respect to the coastal jurisdiction line has not been completed. Rather, Triton has relied upon available inland wetland and tidal wetland maps (and visual observations) to complete this review.

The completion of the NEPA screen process does not constitute completion of an Environmental Assessment (EA) or a Phase I Environmental Site Assessment.

The ACM, LBP, radon, mold, and PCB inspections were completed for accessible materials within the work zone only (as defined in Section 1.1) and involved the use of selective sampling and non-destructive sampling techniques to access visible suspect materials. Although efforts were made to diligently inspect all windows and other building materials, in completing the material survey it should be noted that additional suspect materials or mold may be present behind or beneath building components that were not readily accessible. If suspect, ACM, LBP, and PCB containing materials are encountered during replacement activities, work should be halted until the materials are submitted for laboratory analysis. If mold is identified during replacement activities, it should be abated. As such, Merritt should consider having an environmental professional familiar with the project on site to aid in identifying and sampling potential materials. In most instances, CT DPH does not recommend analytical testing of the air or surfaces to find out how much or what kind of mold is present. As such, Triton's scope of

work has focused on a visual and olfactory evaluation. If requested by the homeowner, such testing can be provided both prior to, and following abatement.

In completing the survey, Triton has relied upon information provided by the client and subcontractors (i.e., testing laboratories). Triton provides no warranty regarding the accuracy and completeness of the information provided by subcontractors. A statistical methodology was used during the materials sampling (consistent with the 5% guidance recommended by EPA). Since not all materials were sampled, Triton cannot guarantee that additional materials are not present which contain higher concentrations. Without additional samples of embedded window materials for PCBs, the need for future EPA involvement cannot be confirmed.

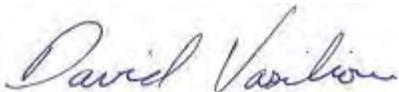
All abatement/renovation activities should be conducted in accordance with all applicable local, state, and federal regulations and Occupational Safety and Health Association (OSHA) guidelines.

This report is intended solely to summarize the results of the ACM, PCB, radon, and XRF lead testing, and mold inspection conducted at the site. This report is not intended to serve as a technical specification for abatement and should not be used as such. All abatement activities should be conducted in accordance with applicable local, state, and federal regulations and OSHA guidelines.

This NEPA Report was prepared specifically for Merritt Construction Services, Inc. and the State of Connecticut. No person or other body shall be entitled to rely upon or use information presented in this report without written consent of Merritt Construction Services, Inc., the State of Connecticut, and Triton Environmental, Inc.

7.0 - SIGNATURES OF REPORT AUTHORS

This report has been prepared by Triton Environmental, Inc. The names listed below are the principal authors of this report. Requests for information regarding the content of this report should be directed to those individuals.



David Vasiliou, LEP
Senior Project Manager

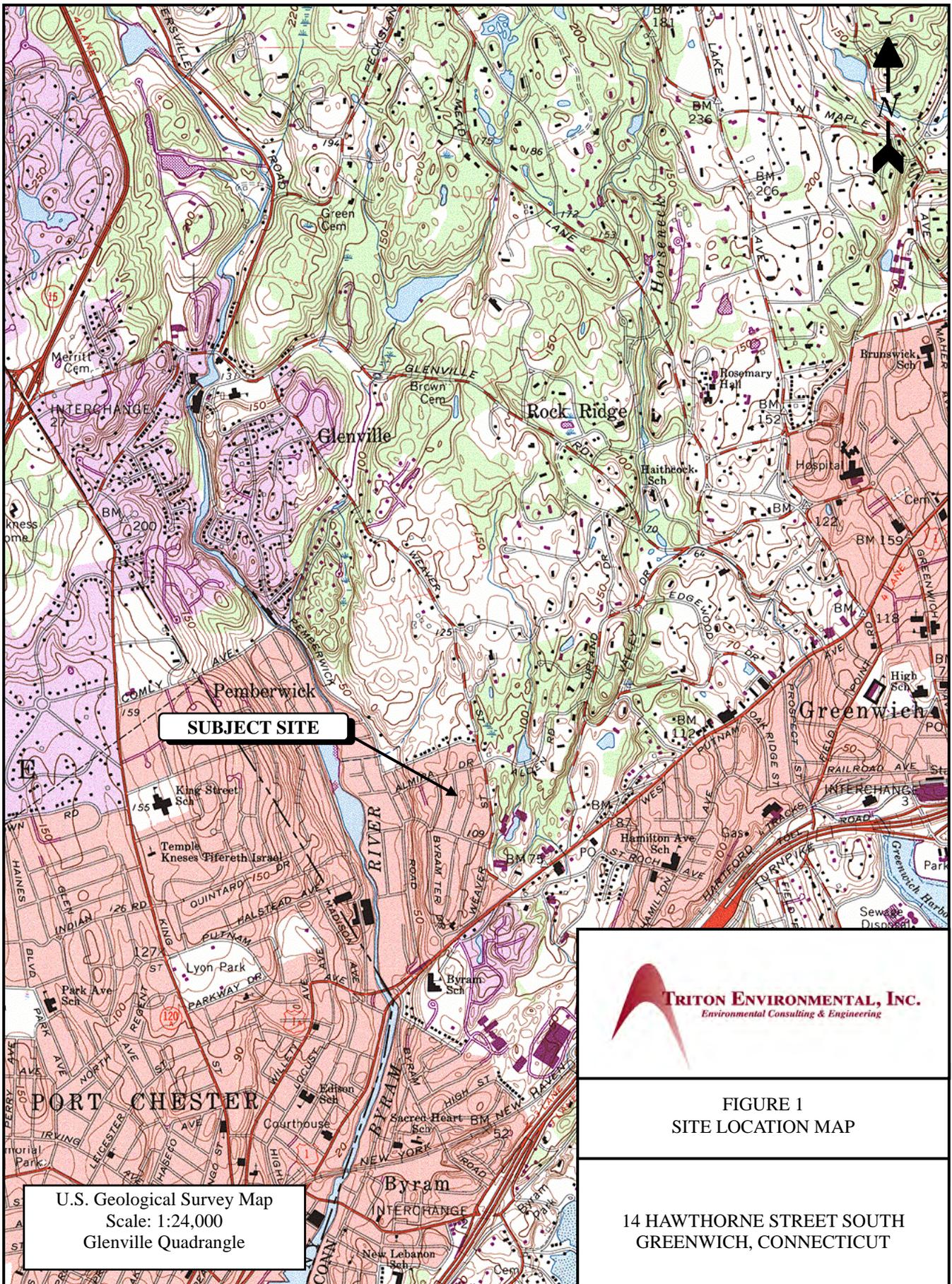


J. Carver Glezen, LEP
Senior Vice President



Christopher E. Marchesi
President

FIGURES

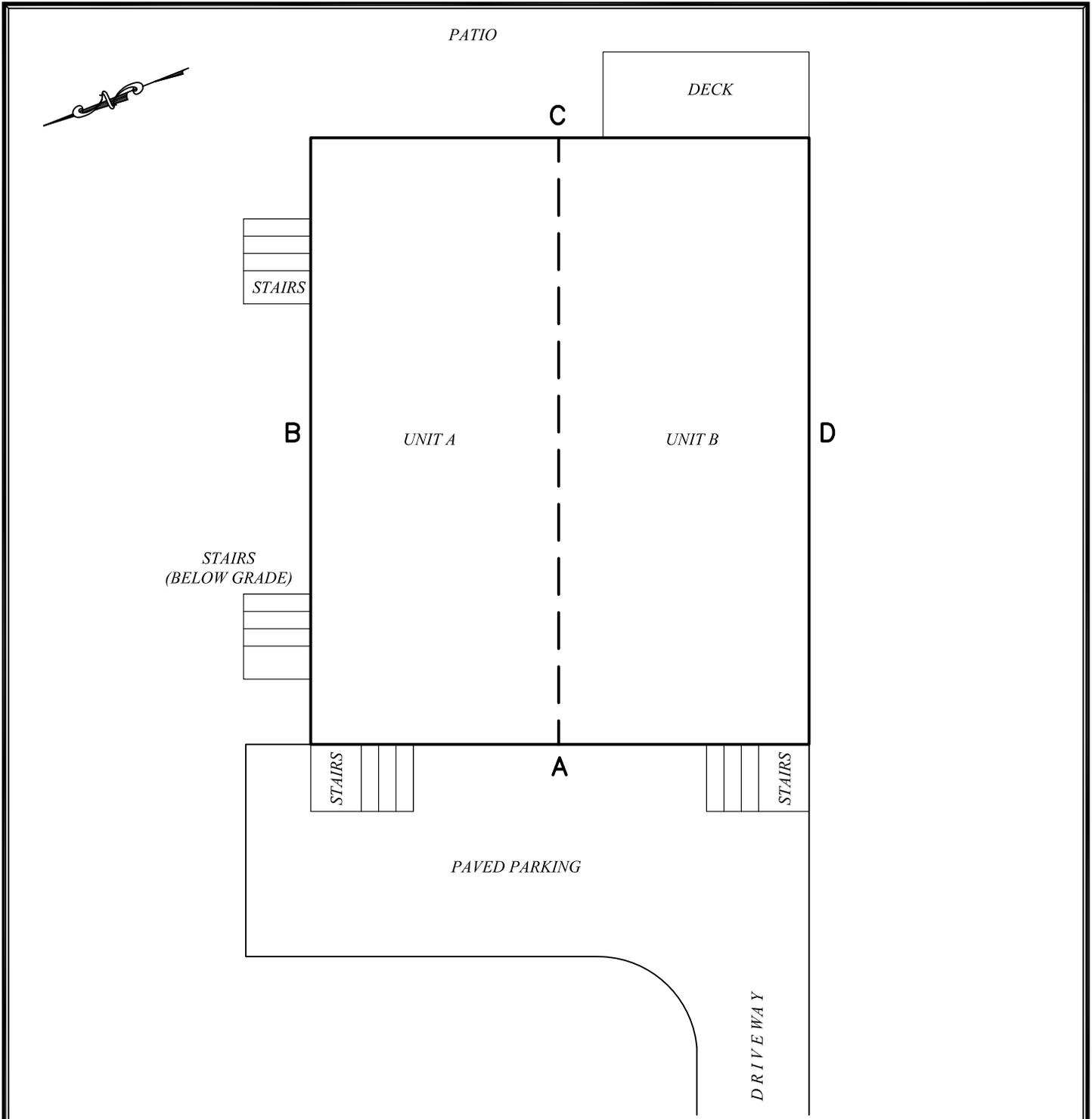


U.S. Geological Survey Map
 Scale: 1:24,000
 Glenville Quadrangle



FIGURE 1
 SITE LOCATION MAP

14 HAWTHORNE STREET SOUTH
 GREENWICH, CONNECTICUT



**NOT TO SCALE – SKETCH ONLY
FOR ILLUSTRATIVE PURPOSES**

NOTES:

1. THE LOCATION OF ALL STRUCTURES, EQUIPMENT, DELINEATIONS AND OTHER FEATURES PRESENTED ON THIS DRAWING SHOULD BE CONSIDERED APPROXIMATE. THIS DRAWING SHOULD ONLY BE USED FOR GENERAL PRESENTATION PURPOSES AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES. TRITON MAKES NO WARRANTY AS TO THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION CONTAINED IN THIS DRAWING, AND THE USER ASSUMES ALL RISK OF LOSS TO PERSONS AND PROPERTY FROM RELIANCE THEREON.



TRITON ENVIRONMENTAL, INC.
Environmental Consulting & Engineering

385 Church Street, Suite 201 • Guilford, Connecticut 06437 • 203.458.7200

FIGURE 2

SITE DIAGRAM

APPLICANT # 1419
14 HAWTHORNE STREET SOUTH
GREENWICH, CONNECTICUT

DRAWN BY: RGM

APPROVED BY: BNS

DATE: 5/27/14

SCALE: N.T.S.

FILE No.: 104318-14HAWTHORNE

Appendix A
Public Resource Maps



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 3301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland

Consultation Tracking Number: 05E1NE00-2014-SLI-0351

June 04, 2014

Project Name: #1419 - 14 Hawthorne Street S, Greenwich

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project.

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: #1419 - 14 Hawthorne Street S, Greenwich

Official Species List

Provided by:

New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 3301
(603) 223-2541
<http://www.fws.gov/newengland>

Consultation Tracking Number: 05E1NE00-2014-SLI-0351

Project Type: ** Other **

Project Description: Roof replacement



United States Department of Interior
Fish and Wildlife Service

Project name: #1419 - 14 Hawthorne Street S, Greenwich

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.6519128 41.0203491, -73.6519766 41.0199929, -73.6522025 41.0196286, -73.6532325 41.0196934, -73.6532325 41.0203571, -73.6519128 41.0203491)))

Project Counties: Fairfield, CT



United States Department of Interior
Fish and Wildlife Service

Project name: #1419 - 14 Hawthorne Street S, Greenwich

Endangered Species Act Species List

There are a total of 0 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed on the **Has Critical Habitat** lines may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

There are no listed species identified for the vicinity of your project.



United States Department of Interior
Fish and Wildlife Service

Project name: #1419 - 14 Hawthorne Street S, Greenwich

Critical habitats that lie within your project area

There are no critical habitats within your project area.



Department of Economic and
Community Development

Connecticut
still revolutionary

1419
JO

May 28, 2014

Hermia M. Delaire
Program Manager
CDBG - Sandy Disaster Recovery Program
Department of Housing
505 Hudson Street
Hartford, CT 06106

Subject: Department of Housing Superstorm Sandy Reviews
14A Hawthorne Street
Greenwich, CT

Dear Ms. Delaire:

The State Historic Preservation Office has reviewed the information submitted for the above-named pursuant to the provisions of Section 106 of the National Historic Preservation Act of 1966. It is the opinion of this office that the property located at 14A Hawthorne Street in Greenwich is not eligible for listing on the National Register of Historic Places.

Based on the information provided, the proposed rehabilitation of 14A Hawthorne Street will have no effect on the state's cultural resources.

This office appreciates the opportunity to have reviewed and commented upon the project.

For further information please contact Laura L. Mancuso, Environmental Review Coordinator, at (860) 256-2757 or laura.mancuso@ct.gov.

Sincerely,

Mary Dunne
Deputy State Historic Preservation Officer

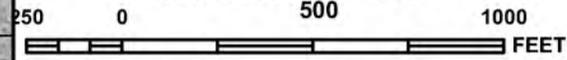
State Historic Preservation Office

One Constitution Plaza | Hartford, CT 06103 | P: 860.256.2800 | Cultureandtourism.org

An Affirmative Action/Equal Opportunity Employer An Equal Opportunity Lender



MAP SCALE 1" = 500'



PANEL 0494G

FIRM
FLOOD INSURANCE RATE MAP
FAIRFIELD COUNTY,
CONNECTICUT
 (ALL JURISDICTIONS)

PANEL 494 OF 626
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GREENWICH, TOWN OF	090008	0494	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



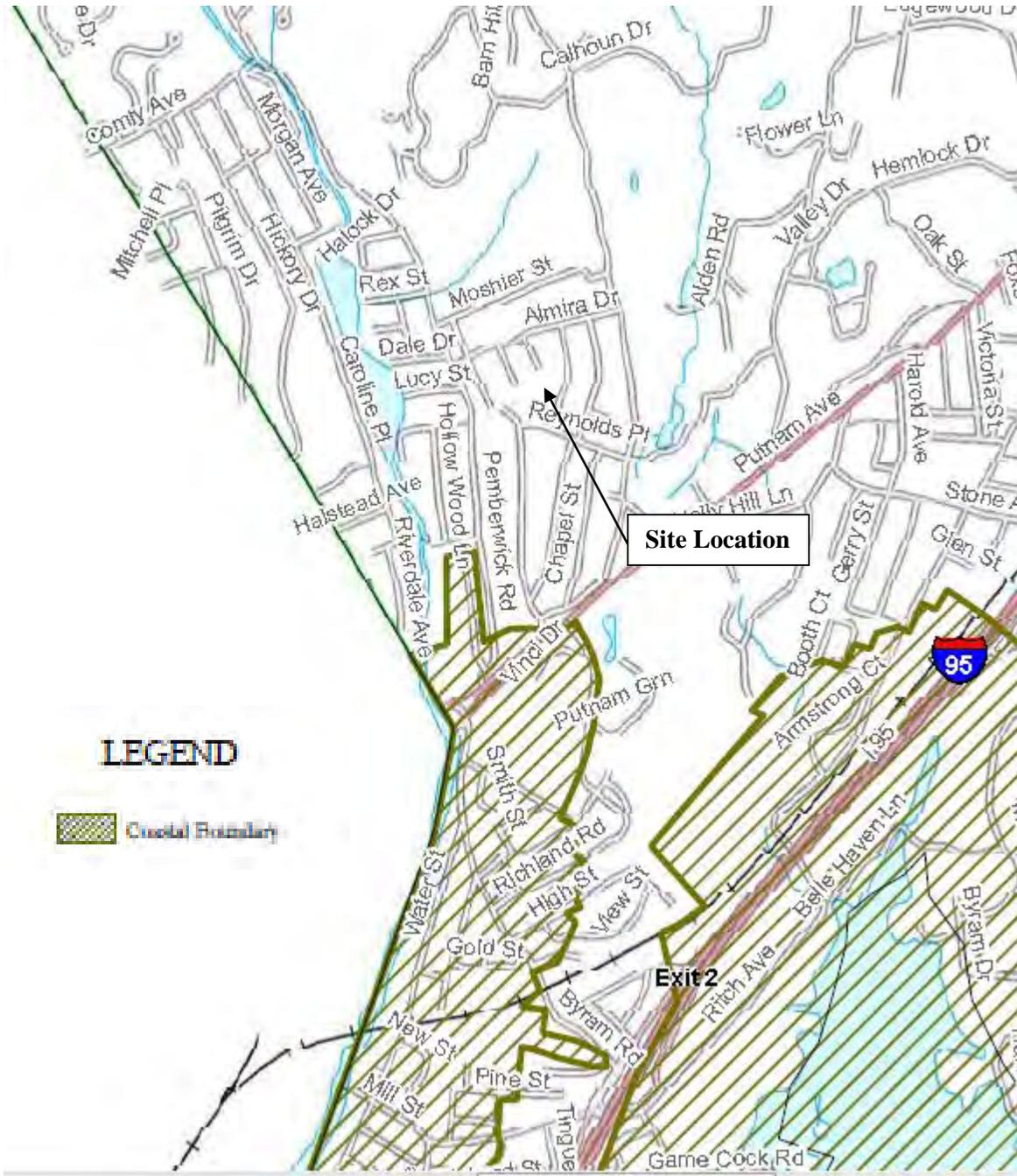
MAP NUMBER
 09001C0494G
MAP REVISED
 JULY 8, 2013

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

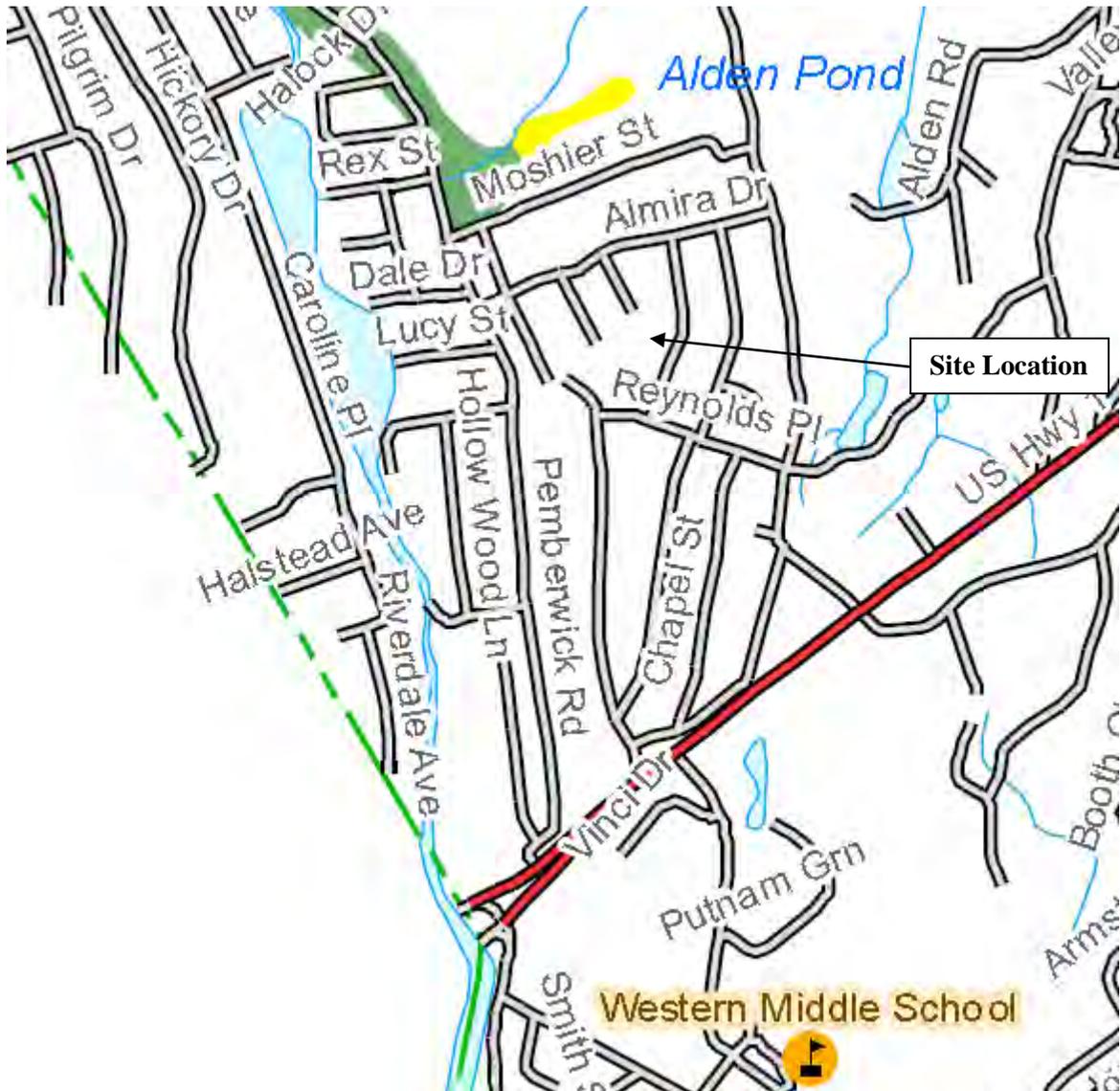
**Coastal Boundary Map
(January 2013)**

14 Hawthorne Street South Unit A
Greenwich, CT



**Farmland Soil Map
(April 2011)**

14 Hawthorne Street South Unit A
Greenwich, CT



**Inland Wetland Soil Map
(October 2009)**

14 Hawthorne Street South Unit A
Greenwich, CT



**Inland Wetland Soil Map – Greenwich
(October 2009)**

LEGEND



Poorly Drained and Very Poorly Drained soils - Poorly drained soils occur where the water table is at or just below the ground surface, usually from late fall to early spring. The land where poorly drained soils occur is nearly level or gently sloping. Many of our red maple swamps are on those soils. **Very poorly drained** soils generally occur on level land or in depressions. In these areas, the water table lies at or above the surface during most of the growing season. Most of our marshes and bogs are on these soils.

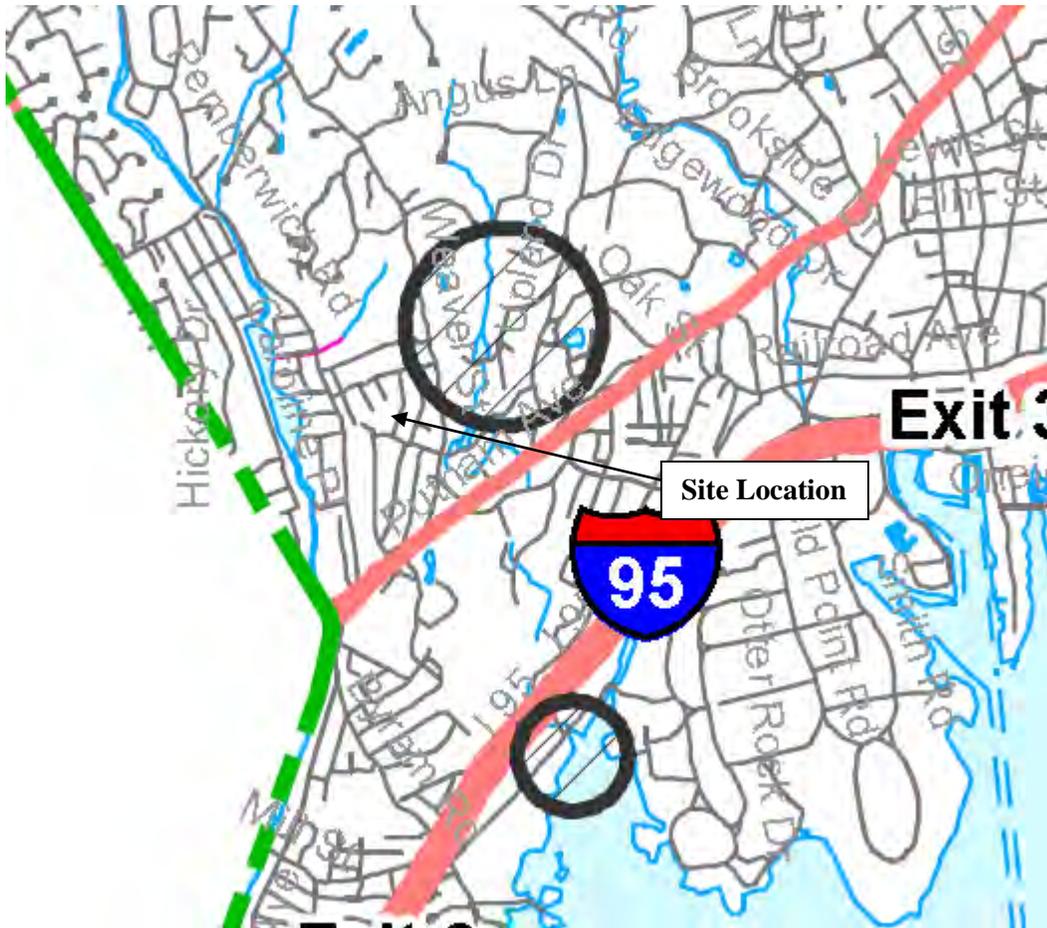


Alluvial and Floodplain soils occur along watercourses occupying nearly all level areas subject to periodic flooding. These soils are formed when material is deposited by flowing water. Such material can be composed of clay, silt, sand or gravel. Alluvial and floodplain soils range from excessively drained to very poorly drained.

-  Open Water
-  River, Brook, Stream
-  Town Boundary
-  State Boundary
-  County Boundary
-  Interstate Highway
-  US Route Highway
-  State Route Highway
-  Highway Ramp
-  Local Road
-  Railroad

**Natural Diversity Database Map
(December 2013)**

14 Hawthorne Street South Unit A
Greenwich, CT



1990's Tidal Wetland Map
14 Hawthorne Street South Unit A
Greenwich, CT

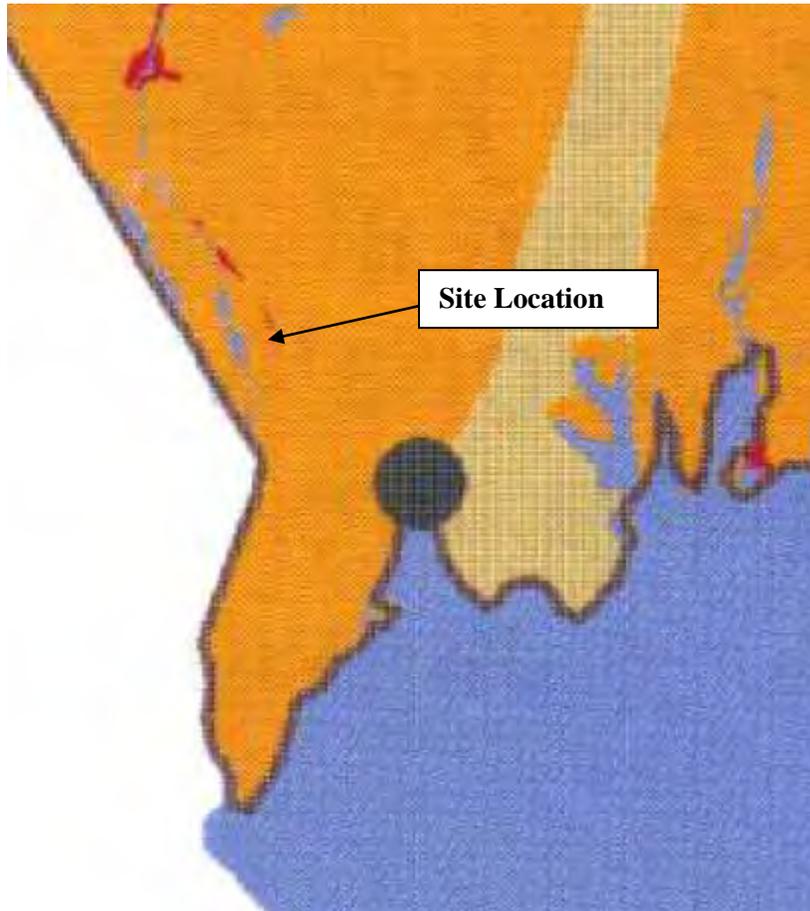


 Tidal Wetland 1990s

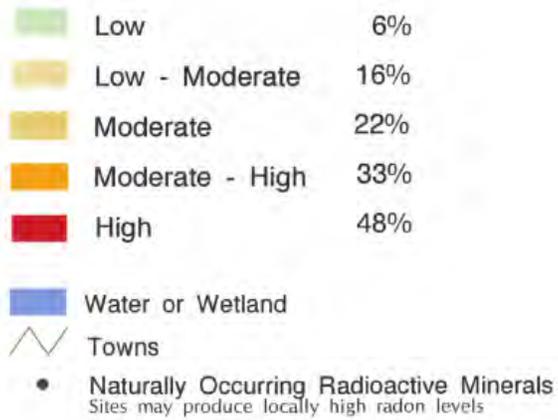
Indoor Radon Potential Map - 1997

14 Hawthorne Street South Unit A

Greenwich, CT



Site location is approximate

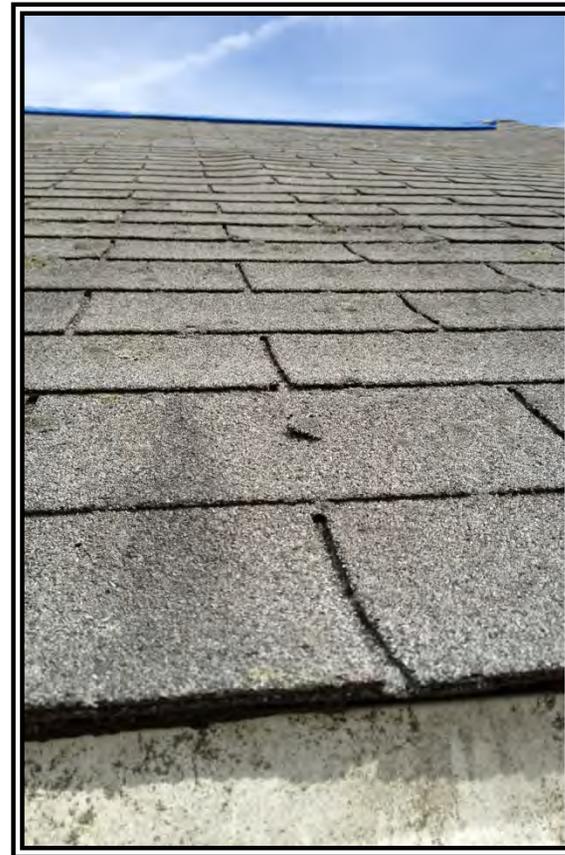


Appendix B

Photographs of Work Area and Mold Inspection Photographs



Photograph 1
Front of house



Photograph 2
Roof to be replaced



Photograph 3
Rear of house



Photograph 4
Black mold on roof decking in attic



Photograph 5
Black mold on roof decking in attic

Appendix C

Rosters of Building Materials Surveyed

- Roster of Suspect Asbestos Containing Materials

Roster of Suspect Asbestos Containing Materials – May 2014
Site # 1419 – 14 Hawthorne Street South, Greenwich, CT

Sample ID	HA	Material	Quantity	Condition	Location
14191-14193	1	Asphalt roof shingle	1000 SF	Good	Roof
Notes: SF = Square Feet HA = Homogeneous Area					

Appendix D
Laboratory Analytical Data

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> cinnaslab@EMSL.com

EMSL Order: 041413173
 CustomerID: TRIT52
 CustomerPO: 104318
 ProjectID:

Attn: **Brian Sirowich**
Triton Environmental, Inc.
385 Church Street
Suite 201
Guilford, CT 06437

Phone: (203) 458-7200
 Fax: (203) 458-7201
 Received: 05/13/14 9:45 AM
 Analysis Date: 5/20/2014
 Collected: 5/7/2014

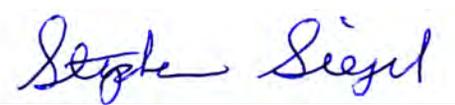
Project: 104318 / 1419- 14 HAWTHRONE ST., SOUTH GREENWICH, CT

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
14191 041413173-0001	ROOF - ASPHALT SHINGLES	Gray/Black Fibrous Homogeneous	5% Glass 10% Cellulose	85% Non-fibrous (other)	None Detected
HA: 1					
14192 041413173-0002	ROOF - ASPHALT SHINGLES	Black Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
HA: 1					
14193 041413173-0003	ROOF - ASPHALT SHINGLES	Gray/Black Fibrous Homogeneous	10% Glass 5% Cellulose	85% Non-fibrous (other)	None Detected
HA: 1					

Analyst(s)

 Patrick Carr (1)
 Samantha Rundstorm (2)


 Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%
 Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from 05/20/2014 07:38:23



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

041413173

EMSL Analytical, Inc.
200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675

FAX: (856) 786-5974

Company : Triton Environmental, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 385 Church Street Suite 201		Third Party Billing requires written authorization from third party	
City: Guilford	State/Province: CT	Zip/Postal Code: 06437	Country: United States
Report To (Name): Brian Sirowich		Telephone #: 203-458-7200	
Email Address: bsirowich@tritonenvironmental.com		Fax #: 203-458-7201	Purchase Order: 104318
Project Name/Number: 104318		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: CT		CT Samples: <input checked="" type="checkbox"/> Commercial/Taxable <input checked="" type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level H TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PLM - Bulk (reporting limit)		TEM - Bulk	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> NIOSH 9002 (<1%)	Other	
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/>	
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> OSHA ID-191 Modified		
<input type="checkbox"/> Standard Addition Method			

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 5/7/14

Samplers Name: Brian Sirowich Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
14691 - 14693	1	Roof	Asphalt Shingles

RECEIVED
EMSL
CINNAMINSON, N.J.
2014 MAY 13 A 10:10

Client Sample # (s): 14691 - 14693 Total # of Samples: 3 minimum

Relinquished (Client): [Signature] Date: 5/2/14 Time: 14:10

Received (Lab): ALL EMSL FX Date: 5/13/14 Time: 0945

Comments/Special Instructions: 1469 - 14 Hawthorne St South Greenwich, CT (3)

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>RadonLab@emsl.com

EMSL Order: 381402369

CustomerID: TRIT52

CustomerPO:

ProjectID:

Attn: **Dave Vasiliou**
Triton Environmental, Inc.
385 Church Street Ste. 201
Guilford, CT 06437

Phone: (203) 458-7200
 Fax: (203) 458-7201
 Received: 05/12/14 4:19 PM
 Analysis Date: 5/13/2014
 Collected: 5/7/2014

Project: 14A Hawthorne St. South

Test: **Carol Larusso**
 Site: **14A Hawthorne St. South**
Greenwich, CT 06831

Test Report: Radon in Air Test Results**Samples for EMSL Kit 97815**

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
164830	Basement	3.1	5/7/2014	5/9/2014	70	60	Customer
381402369-0001			2:00:00 PM	2:21:00 PM			
Sample Notes:							
164836	Basement	3.7	5/7/2014	5/9/2014	70	60	Customer
381402369-0002			2:00:00 PM	2:21:00 PM			
Sample Notes:							

Summary for EMSL kit 97815**Average Radon Result: 3.4 pCi/L**

The results indicate that both testing devices registered below the United States Environmental Protection Agency (EPA) action level of 4.0 picoCuries per liter of air (pCi/L). The EPA recommends fixing your home if the average of two short-term tests taken in the lowest lived-in level of the home show radon levels that are equal to or greater than 4.0pCi/L. The radon test was performed using a liquid scintillation radon detector/s and counted on a liquid scintillation counter using approved EPA testing protocols for Radon in Air testing. The EPA recommends retesting your home every two years.

Please contact EMSL Analytical, Inc. or your State Health Department for further information.

All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of Radon in Air.

Report Notes

Analyst(s)

Laura Freeman (2)

Garrett A. Ray, Laboratory Manager
 Certified Radon Measurement Specialist NRSB 5SS0093
 NJ MES12264, FL R2001, NE 116, PA 2572

In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder. The test results meets all NELAC requirements unless otherwise specified. Accreditations: NRSB ARL6006, NJ DEP 03036, MEB 92525, PA 2573, IN 00455, IA L00032, RI RAS-024, ME 20200C, NE RMB-1083, NY ELAP 10872, NM 885-10L, FL RB2034, OH RL-39, NRPP #106178AL, KS-LB-0005

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ

Initial report from 05/14/2014 15:45:14

Please visit www.radontestinglab.com



EMSL Analytical, Inc.
 200 Route 130 North
 Cinnaminson, NJ 08077
 Tel: 800-220-3675 • Fax: 856-786-0327
 www.radontestinglab.com

DOM: 3/17/14
 EXP: 3/17/15 M#2

RECEIVED
 CINNAMINSON, NJ

TRIT52
 5 DAY

381402369
 2014 MAY 12 7 11 19
Radon In Air Data Sheet

Send Written Report To:

Name Dave Vasiliou - Triton Env
 Address 385 Church ST
 City Guilford State CT Zip 06437
 Phone 2034587200 Fax 2034587201
 Email dvasiliou@tritonenvironmental.com
 Technician Name B1425
 Technician Certification # _____
 Technician Signature [Signature]

1ST RED VIAL # 164830

LOCATION

- Basement First Floor Bedroom Den
- Living Room Other _____
- Location in Room _____

2ND RED VIAL # Sent 164836 5/12/14
 (If Purchased)

The device has been scientifically tested to provide reliable indoor radon measurements when exposed to temperatures between 60 and 80 degrees F; temperatures outside this range will invalidate the test results.

Kit # 97815 (Outside of Box)

The test device must remain open for 48 to 96 hours • Return this section with the test device to the laboratory

Property Tested:

Name Carol Larusso
 Address 14A Hawthorne St South
 City Greenwich
 Municipality _____ County USA
 State CT Zip 06831
 Check here if this is a Post Mitigation test.
 Technician Name Zachary Hawk
 Technician Certification # _____
 Technician Signature Zac Hawk

INDOOR CONDITIONS

Temperature 70 °F Humidity 60 %

EXPOSURE PERIOD

Beginning Date: 5 / 7 / 14

Time: 2:00 AM / (PM) (Circle)

Ending Date: 5 / 9 / 14

Time: 2:21 AM / (PM) (Circle)