

**REQUEST FOR QUALIFICATIONS
ARCHITECTURAL/ENGINEERING DESIGN SERVICES
For the RENOVATION OF THE TUTTLE BUILDING**

The Borough of Naugatuck is seeking responses from architectural/engineering firms licensed to do business in the State of Connecticut for professional design services to provide comprehensive design and construction administration services for the renovation of the Tuttle Building which currently houses the Naugatuck Public Schools Board of Education offices.

Constructed between 1879 and 1881, the Tuttle Building is a historic facility located at 380 Church Street, Naugatuck, Connecticut. The project includes renovations to the building envelope including replacement of the roof and exterior improvements. Interior renovations include ADA code compliance improvements including the installation of a handicapped lift and bathroom as well as possible sprinkler system. The project will include all design phases including Schematic Design, Design Development, Construction Documents, Bidding Assistance, and Construction Administration. This project will not be funded by the Connecticut Division of Construction Services Office of School Facilities.

Qualifications

Qualified firms must meet the following criteria:

- Be a licensed architectural or engineering firm in Connecticut;
- Have completed a minimum of eight (8) roof replacement projects;
- Have completed a minimum of two (2) projects which included code compliance updates, specifically ADA accessibility;
- Experience working with historic buildings.

Selection Criteria

Qualified firms will be evaluated based on the following criteria:

- Professional competence;
- Project understanding;
- Experience on similar projects;
- Ability to perform the required services within the overall time schedule.

SUBMISSION PACKAGES

Submissions should include the following information:

- Letter of Transmittal;
- Firm Overview;
- Similar Project Experience;
- Resumes of Project Team Members including Consultants;
- Contact information for not less than three professional references;
- Any Additional Information you feel is relevant

Five (5) copies of the qualifications package should be submitted to the Borough by 2:00 pm on **Tuesday, May 26, 2015**. Packages should be addressed and delivered to:

James R. Stewart PE & LS
Director of Public Works
Borough of Naugatuck, CT
246 Rubber Ave
Naugatuck, CT 06770

Packages should be marked ARCHITECTURAL SERVICES – TUTTLE BUILDING RENOVATIONS.

SITE VISITS

A site visit is scheduled for Wednesday, May 13, 2015 at 10:00 am. All interested firms shall meet at the Tuttle Building, 380 Church Street, Naugatuck at said date and time.

COST PROPOSAL

This submission is for qualifications only. The Borough of Naugatuck will review submissions and may select up to four firms to be shortlisted. The shortlisted firms will be interviewed and asked to provide a fee proposal at a date to be determined.

QUESTIONS

Questions regarding this RFQ should be directed to:

James R. Stewart, PE & LS
Director of Public Works
Borough of Naugatuck, CT
246 Rubber Ave
Naugatuck, CT 06770
P (203) 720-7071
jstewart@naugatuck-ct.gov

Additional General Information

1. Equal Opportunity Clause

The Borough of Naugatuck is an affirmative action/equal opportunity employer.

(1) The vendor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The vendor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The vendor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The vendor will, in all solicitations or advertisements for employees placed by or on behalf of the vendor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

- 3) The vendor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the vendor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The vendor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The vendor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the vendor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the vendor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) the vendor will include the provisions of paragraphs (1) through (7) in every sub contract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subvendor or bidder. The vendor will take such action with respect to any sub contract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the vendor becomes involved in, or is threatened with, litigation with a subvendor or bidder as a result of such direction, the vendor may request the United States to enter into such litigation to protect the interests of the United States.

2. Reimbursement for Costs

It is the responsibility of the bidder's respondents to pay for all costs associated with submitting proposals. The Borough of Naugatuck shall not reimburse any costs.

3. Insurance Requirements

Before execution of the Contract, and before each Contract year, the Bidder will be required to file with the Borough of Naugatuck a certificate of insurance. The certificate shall be executed by an insurance company in good standing with the State of Connecticut and shall name the Borough of Naugatuck and the State as additional insured parties on the form furnished with these specifications. The "Certificate of Insurance" shall state that at a minimum, with respect to the Contract, the bidder carries insurance in accordance with the requirements and stipulations listed below.

Unless requested otherwise by the Borough of Naugatuck, the Bidder and its insurer shall not assert the defense of governmental immunity in the adjustment of claims or in the defense of any claim or suit brought against the Borough and the State. The Bidder shall assume and pay all cost and billing for premiums and audit charges earned and payable under the required insurance. Any deductibles are the sole responsibility of the Contractor, including claim handling and legal expenses.

- A. Workmen's Compensation Insurance:** With respect to all operations the Bidder performs and all those performed for it by subbidders, the Bidder shall carry workmen's compensation insurance in accordance with the requirements and the laws of the State of CT.
- B. Contractor's Public Liability and Property Damage Insurance:** With respect to the Project operations the Bidder performs and also those performed for it by subbidders, the Bidder shall carry regular Contractor's Public Liability Insurance. The insurance shall provide coverage for each accident or occurrence in the amount of \$2,000,000 for all damages resulting from (1) bodily injury to, or death of, persons and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide a total or aggregate coverage of \$5,000,000 for all damages during the policy period.
- C. Automobile Liability Insurance:** The operation of all motor vehicles, including those hired or borrowed shall be covered by Automobile Liability Insurance. The insurance shall provide coverage for each accident or occurrence in the amount of \$2,000,000 for all damages resulting from (1) bodily injury to, or death of, persons and/or (2) injury to or destruction of property. If an insurance policy shows an aggregate limit as part of the automobile liability coverage, the aggregate limit must be at least \$2,000,000.
- D.** With respect to the operations the Bidder performs and also those performed for it by subbidders, the Bidder shall carry for and on behalf of the Borough of Naugatuck, and State, insurance which shall provide coverage for each accident or occurrence in the amount of \$2,000,000 for all damages resulting from (1) bodily injury to or death of person and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide a total or aggregate coverage of \$5,000,000 for all damages during the policy period.
- E. Termination or change of Insurance:** Each insurance policy shall be endorsed to provide that the insurance company shall notify the Borough of Naugatuck by certified mail at least thirty (30) days in advance of termination, or any change in the policy.
- F. Claims:** Each insurance policy shall state that the insurance company shall agree to investigate and defend the Borough of Naugatuck and State against all damages, even if groundless.
- G. Compensation:** There shall be no direct compensation allowed the Bidder on account of any premium or other change necessary to take out and keep in effect all insurance or bonds, but the cost thereof shall be considered included in the general cost of the work.

4. Signature Requirements

Proposals must be signed by a duly authorized official of the Company. Consortiums, joint ventures, or teams submitting proposals will not be considered unless it is established that all contractual responsibility rests solely with one Contractor or one legal entity, which shall not be a subsidiary or affiliate with limited resources. Each proposal should indicate the entity responsible for execution on behalf of the proposal team.

5. Observance of Laws

The Contractor shall, at all times, observe and comply with all Federal, State and Borough laws, ordinances and regulations in any manner affecting the conduct of the work.

Naugatuck Historical
Society

EXISTING CONDITIONS REPORT

TUTTLE HOUSE NAUGATUCK, CONNECTICUT

March 16, 2010



416 Slater Road, P.O. Box 2590
New Britain, CT 06050-2590
Phone: 860-229-0361
Fax: 860-229-5303

March 16, 2010

Dr. John Tindall-Gibson
Superintendent of Schools
Naugatuck Board of Education
380 Church Street
Naugatuck, CT 06770-2887

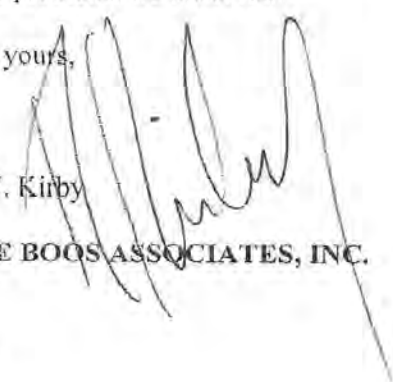
**Re: Investigation of building envelope at the
Naugatuck Board of Education
Naugatuck, CT**

Dear Dr. Tindall-Gibson:

Kaestle Boos Associates, Inc. ("KBA") is pleased to submit this report of our investigation of the Tuttle Building's exterior envelope, with recommendations to address the existing conditions. Our team of experienced professionals investigated not only the slate roof, but the condition of the wood deck, its supporting structure and exterior masonry in locations where leaks were occurring. Apparently the leaks have been present for an extended length of time and have resulted in serious deterioration of this historic facility.

KBA recommends that the Borough of Naugatuck address this situation immediately to avoid further deterioration that might result in more permanent damage. From our experience in projects similar to this, we fully appreciate the task at hand. We truly hope that this investigation will facilitate the process to address the problems we observed.

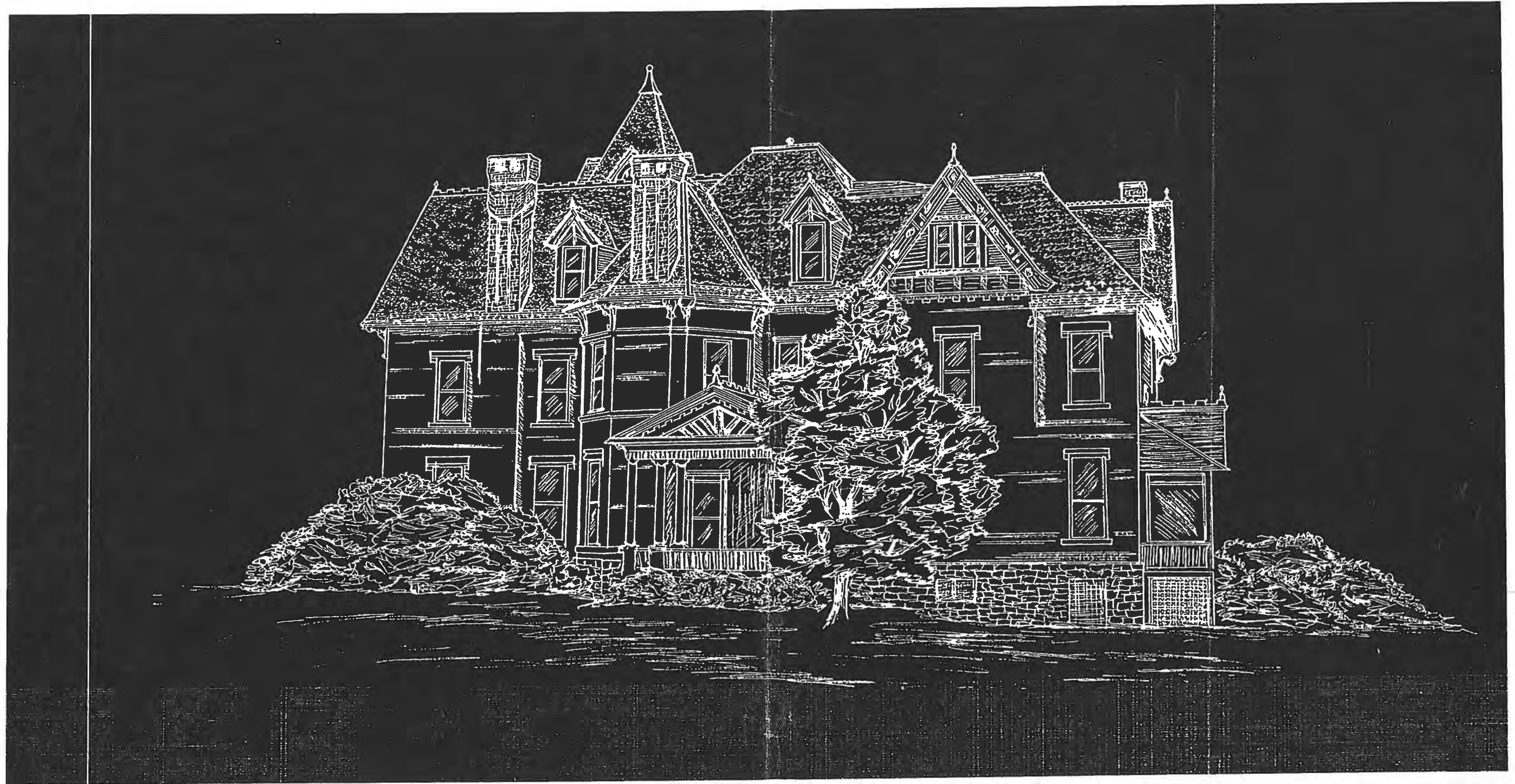
Very truly yours,



Richard W. Kirby
Associate
KAESTLE BOOS ASSOCIATES, INC.

RWK:bc

c: Wayne McAllister
Mike Lynch



09050.00

EXISTING NORTH ELEVATION
Tuttle House

Naugatuck, CT

February 10, 2010

SCALE: 3/32" = 1'-0"



Background:

On December 15, 2009 Mr. Wayne McAllister the City Controller contracted the services of Kaestle Boos Architects, Inc. (“KBA”) to survey the roof, masonry and exterior wood trim at the Tuttle Building in order to prepare this existing conditions report which includes recommendations for remedial work to address the leaks which currently occur at the facility.



Description:

The offices of the Naugatuck Board of Education are located in the Tuttle Building at 380 Church Street in the Borough of Naugatuck, Ct. The Tuttle Building is listed on the National Register of Historic Buildings; it's wood frame and masonry construction dates back to the late 1800's.

Roof Overview:

The facility's principal roofing material is slate installed on steep sloped wood plank decks. The exceptions are the asphalt shingles installed on the small gable roofs over wood plank decks on the carriage entrance and the exterior stairs on the west elevation as well as the rolled modified bitumen membranes installed on several small flat wood plank decks at the high roofs. The roof design is very complex with numerous slopes, gables, hips, valleys and dormers which create optimum conditions for leaks where these elements intersect. Other outstanding features include ornamental clay ridge caps, copper hips and valleys.

Existing Conditions of Exterior Envelope:

The slate roofs are in poor condition and the following observations were made:

- Sections of slate shingles are missing exposing the wood plank deck to water infiltration. No building felts were observed under the slate which typically would provide a secondary level of water protection.



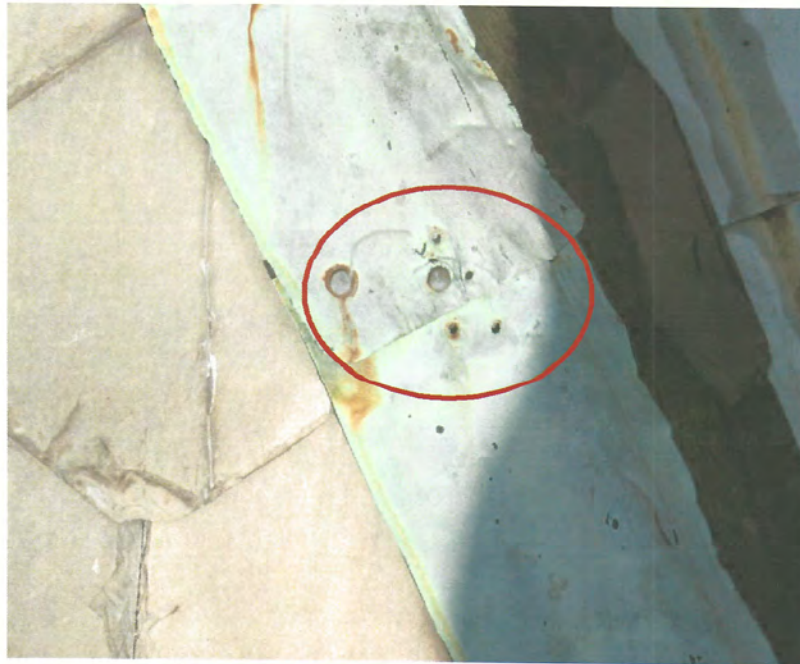
Exposed Wood Plank Deck

- Numerous individual pieces of slate shingles are cracked or have become dislodged and have fallen off the roof or are in danger of falling, creating potential liability issues.



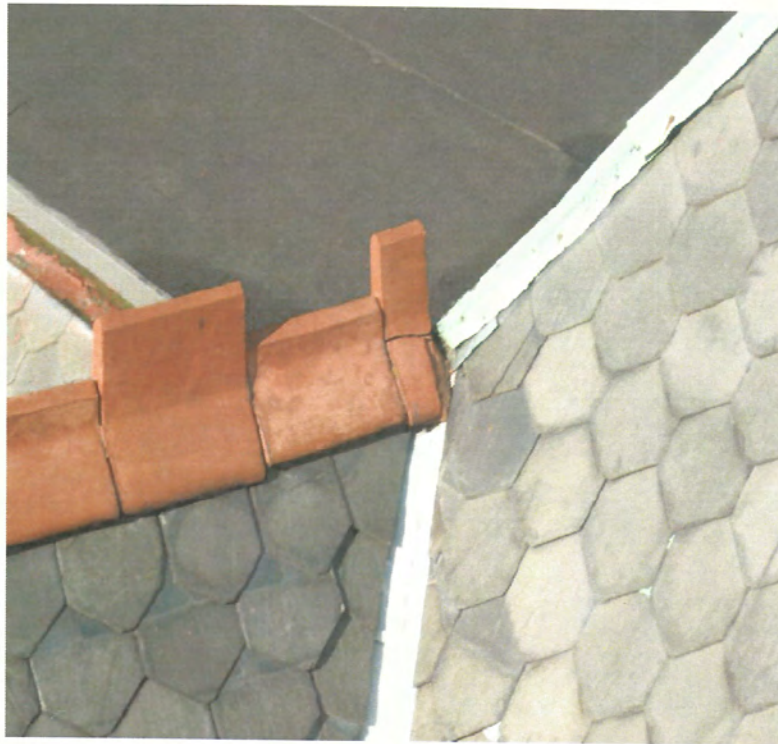
Loose or Missing Slate

- The copper sheet metal flashings protecting the transitions at the hips are in poor condition. Sections on the east elevation have become detached from the roof surface. Other sections show evidence of repeated repairs which do not appear to be weather tight.



Existing Repairs Made at Hip Flashings

- Past efforts to repair the roof, demonstrate a poor quality of the workmanship indicating a lack of sophistication or understanding of the importance of making the facility water tight. Sheet metal details appear to be cobbled together using small sections secured with exposed fasteners. They are installed in a very crude fashion allowing water to enter the facility at numerous locations.



Repairs

- The gutters are for the most part useless. Numerous sections of gutter are bent and hanging off the building. The gutter hangers do not appear to be adequate for the weight of snow and ice. Snow guards which help retain the ice and snow from accumulating and overloading the gutters with additional weight were not observed at these locations.



Damaged Gutters

- Several slate chimney caps and clay flues are damaged and in need of replacement. The chimney cap and clay flue on the west side of the facility is missing completely.



Damaged Chimney Cap



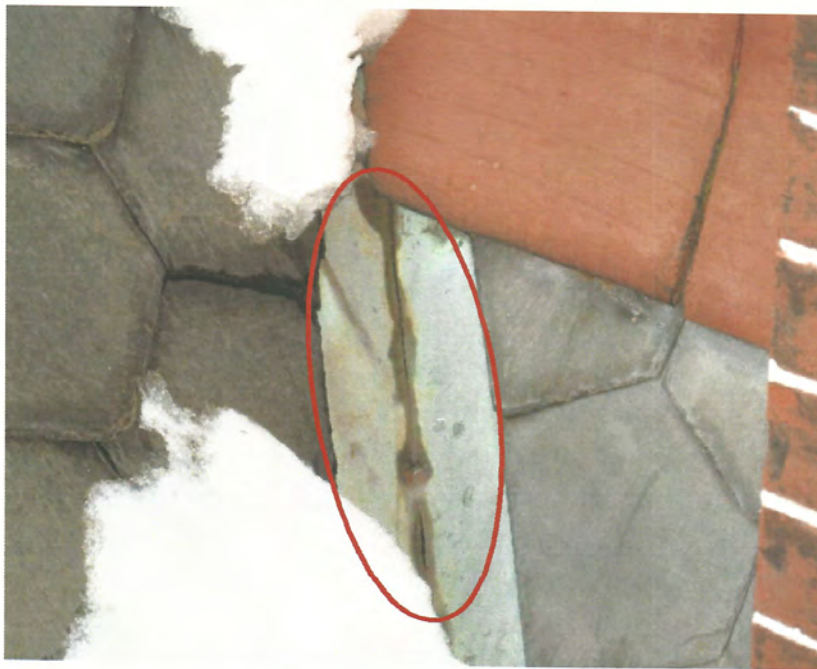
Missing Chimney Cap

- Crickets which divert water, ice and snow around and away from roof top penetrations such as chimneys and exhaust fan curbs were not observed. The lack of crickets can contribute to a build-up of snow and ice behind the penetrations that can eventually turn into water and enter the facility.



No Crickets

- It was noted that some of the copper valley flashings are split open and others had been repaired by applying a thick layer of roofing cement which will eventually dry out and continue to leak.

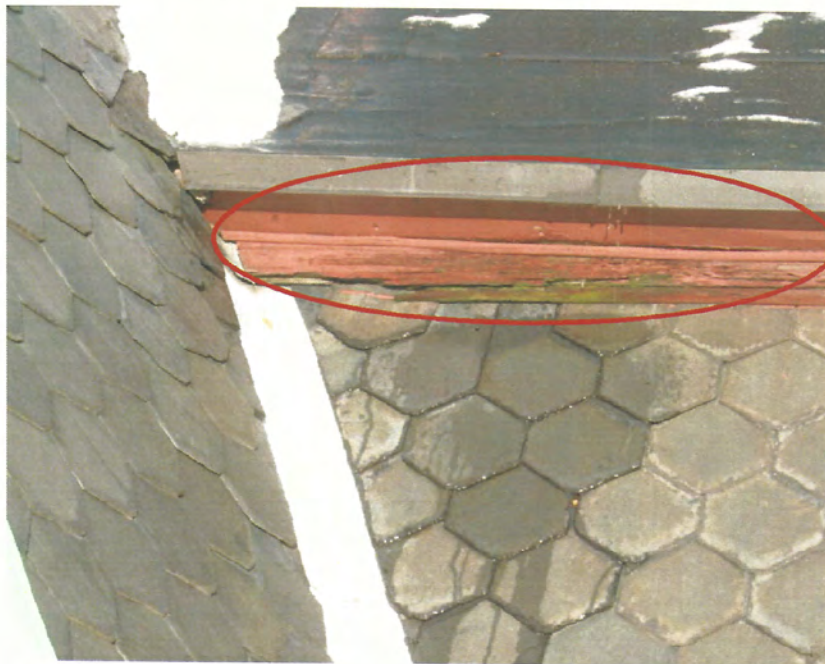


Copper Valley Flashing Spilt Open



Copper Valley Flashing Covered with Roofing Cement

- Wood trim installed at several roof flashing details is rotted and in extremely poor condition.



Wood Trim



Wood Trim

- The rake edges have no drip edges which typically are installed to help deflect the water away from the wood trim.



No Drip Edge

- Sections of roof on the south elevation were repaired with used slates as evidenced by the exposed holes, indicating that the pieces of old slate were rotated to hide defects or broken edges.



Repairs with used Slates

- The nails used to fasten the slate shingles to the wood deck are very small and do not meet current industry standards.



Nails do not meet Industry Standards

- The poor condition of the roof is dramatically displayed by the water stained wall and ceiling finishes on the 3rd floor which are self explanatory.



Water Stained Finishes

- The ornate carpentry wood work on the exterior of the building exhibits evidence of severe neglect. The wood is dried; the paint is peeling and flaking, exposing the wood to the damaging effects of the wind, rain, snow and ice. This example of woodwork is irreplaceable and should be preserved and protected immediately.



Dried Wood and Peeling Paint

- The wood construction at windows, exterior stairs and dormers is in poor condition and must be repaired and protected before it is lost completely.



Poor Condition of Wood Conditions

Other Miscellaneous Observations:

Vegetation growing on the exterior walls typically opens up the mortar joints allowing water to enter the facility, accelerating the deterioration to the masonry due to repeated freeze thaw cycles.



Recommendations:

The roofs are in poor condition, evidence of leaks are too numerous to mention and visible on multiple surfaces on the 3rd floor walls and ceilings, as well as the wood plank decks and structural elements in the attic. KBA recommends that the roofs be removed in their entirety down to the wood decks. This will provide an opportunity to inspect the existing exposed wood plank deck in order to replace any water saturated, rotted and damaged decking.

A new slate roof should be installed over a continuous layer of ice and water shield to provide a secondary layer of protection that will guarantee the borough of Naugatuck a maintenance free water tight roof for the next 50 years. New copper hip and valley flashings must be integrated into this new roofing assembly to properly flash and terminate the numerous transitions. The ridges must also be sealed, flashed and made water tight before re-installing the original ornamental clay ridge caps.

KBA recommends that gutters and downspouts be installed at all the eave conditions to enhance water management and direct water away from the building's foundation and pedestrian walking areas. The project must also include snow guards to limit the amount of ice and snow build-up in the gutters and to avoid the sudden release of snow and ice onto the pedestrian traffic below

To eliminate potential water infiltration, the chimneys must be repaired and re-pointed, the project scope should include new precast concrete caps, new copper flashing all around the transition with the roof and the incorporation of crickets to divert water, ice and snow away from the masonry. The rotted wood on the dormers must be removed, replaced, painted and flashed into the new slate roof to provide protection from water infiltration.

Although the modified bitumen membrane on the small flat roofs and the asphalt shingle roofs over the carriage entrance and exterior stairs are in relatively good condition, KBA recommends that their removal and replacement be included in the scope of work in order to properly flash and seal all interacting transitions and penetrations which will help guarantee a water tight facility installed by a single roofing contractor.

Original Building Structure

Overview:

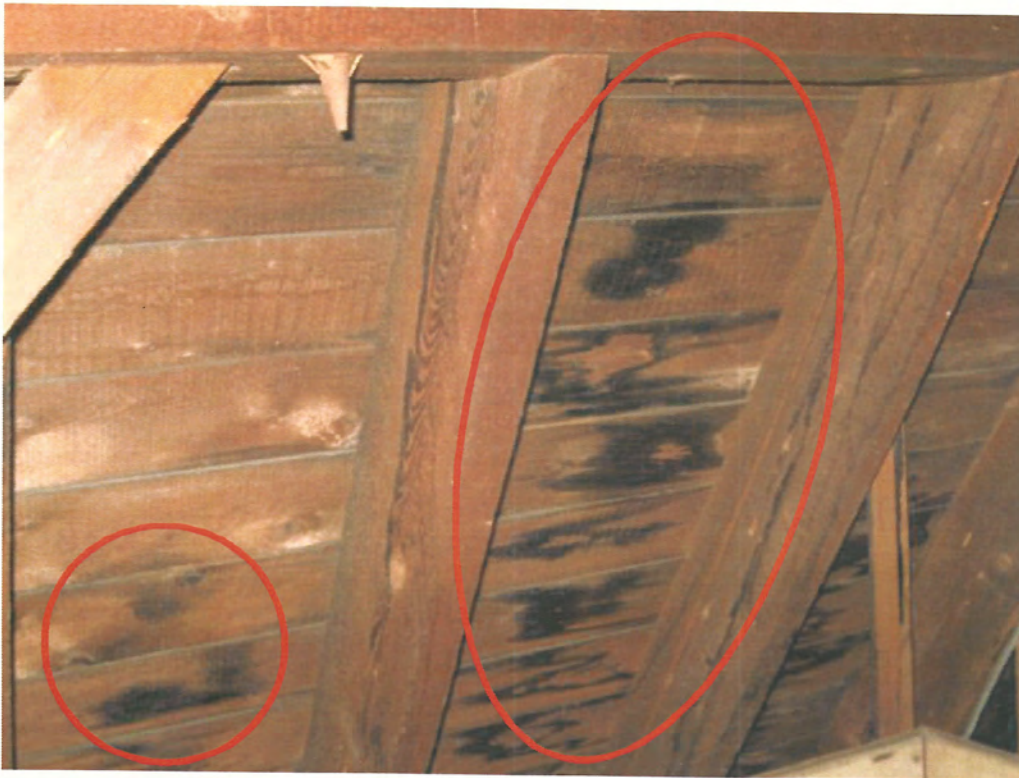
The structure of the original building consists of a combination of masonry bearing walls and wood framing. The wood framing includes typical wood floor and roof joists that are supported by the exterior bearing walls and wood timber beams. The timber beams frame into the bearing walls and also wood posts or columns. Typical wood joists span between timber beams and masonry bearing walls. With the exception of the Attic, most of the floor and wall framing is concealed beneath finished surfaces. In the Attic, the timber beams, roof joists and wood roof deck are visible. The exposed portions of the foundation walls revealed that they are constructed with cut stone and mortar.

Existing Conditions Assessment:

- There are a number of locations in the attic where water staining is visible on the timber beams, joists and underside of roof deck. Water stains are also noticeable in plaster walls and ceilings on the 3rd floor which indicates that possible deterioration to the wood framing and exterior masonry walls may be occurring due to the water infiltration.



Water stained timber beams viewed from the Attic



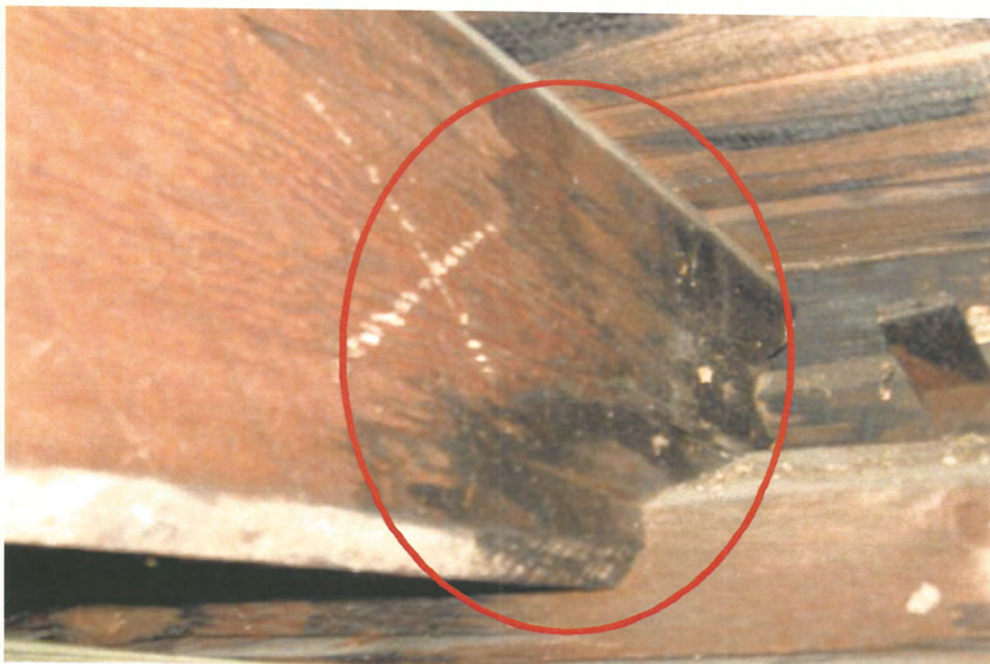
Water stained wood roof decking



Water stained and sagging plaster ceiling viewed from the Third Floor



Water stained roof joist at bearing end



Water stained roof joist at bearing end



Water stained roof deck and timber beams at hip roof



Water stained timber beams, roof joists and deck

- The exterior masonry walls are constructed with brick with thin (1/16" to 1/8" wide) mortar joints. In many locations the mortar is in various stages of spalling or wearing away. This condition is causing voids in the mortar joints of different depths. These voids are allowing rainwater and freeze/thaw damage to occur. The voids may also allow water to enter the building and cause mold issues.



Voids in mortar joints



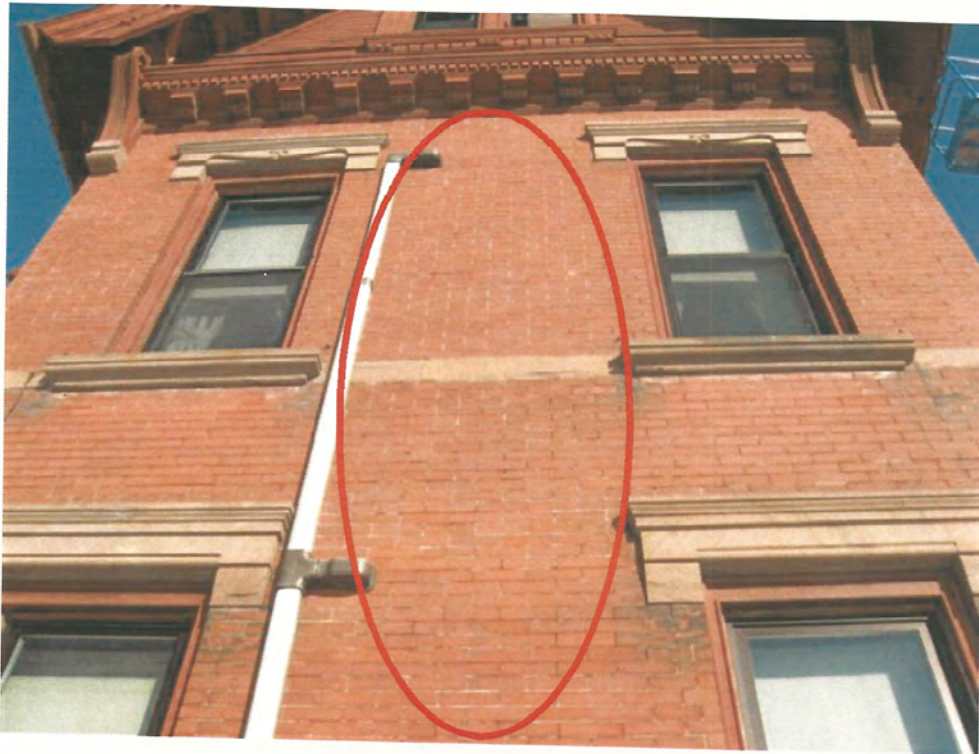
Voids in mortar joints



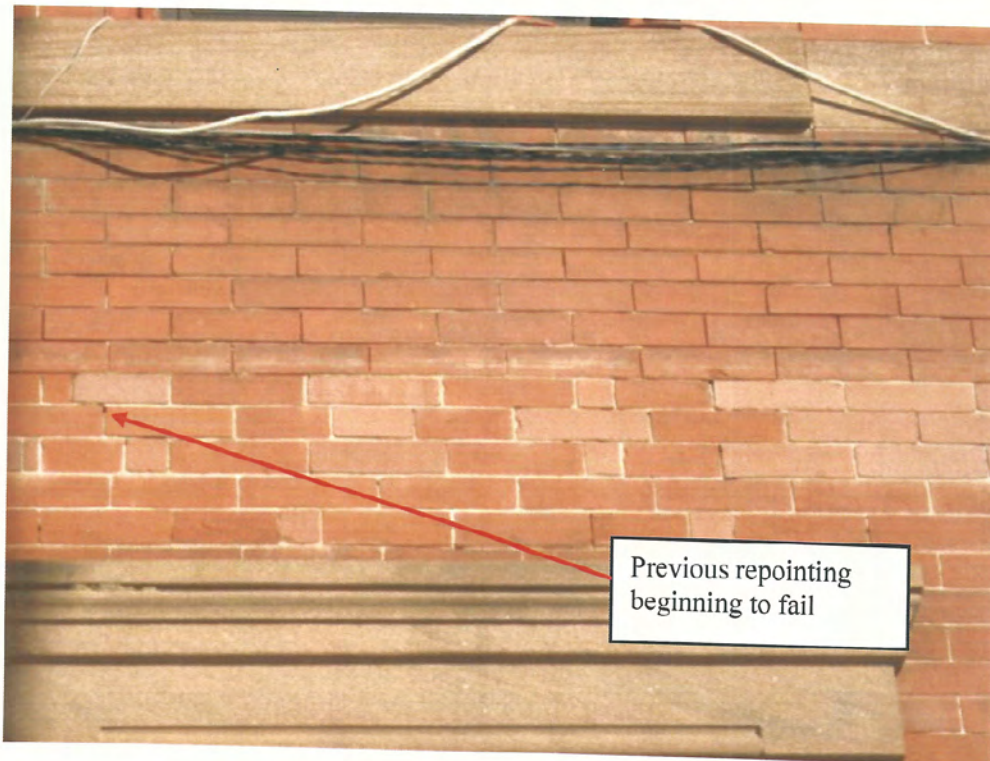
Voids in mortar joints and spalling mortar



Spalling mortar joints in brick wall



Voids and spalling in brick mortar joints

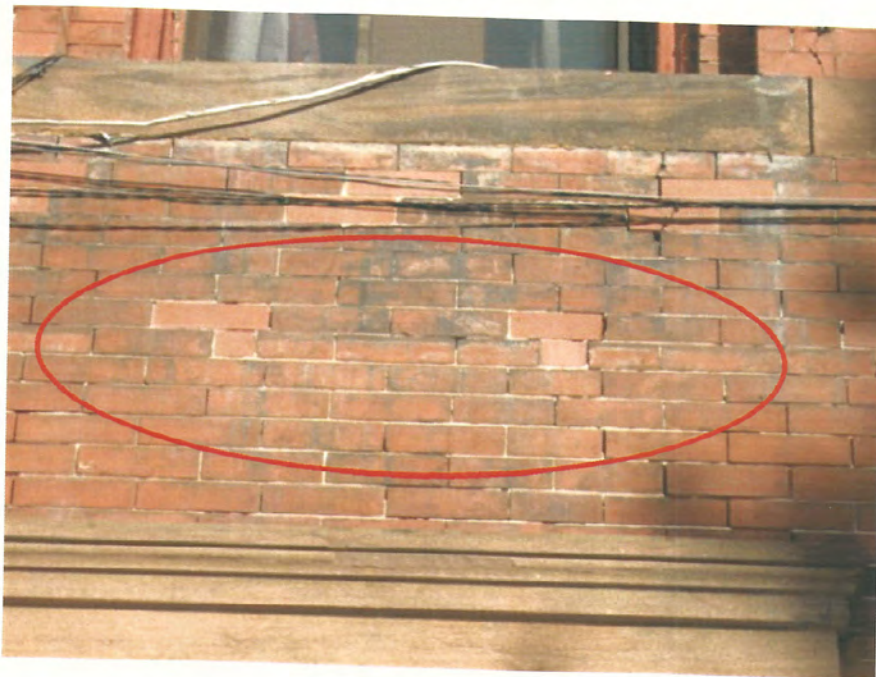


Close up of mortar joints

- Movement is visible in the brick below a few of the windows. The mortar has spalled at these locations and water infiltration in conjunction with freeze/thaw damage may have caused the condition.



Failing masonry below window

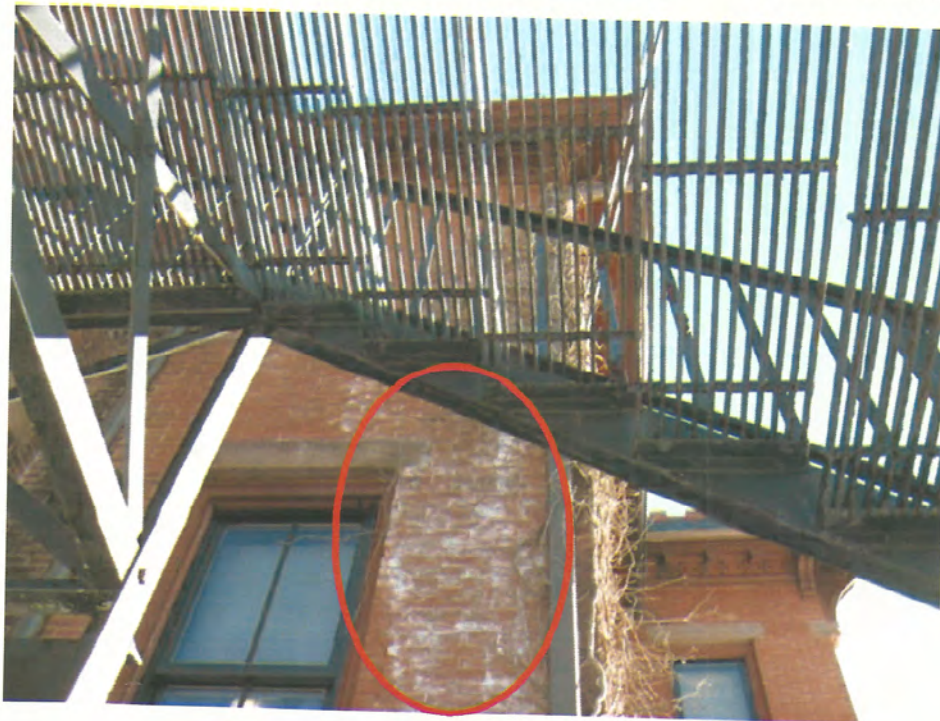


Close up of movement in masonry below window



Movement above door opening with diagonal cracking

- Efflorescence is present on the brick surface at specific locations on the north and west sides of the building. Water infiltration behind the outer wythe of brick is the cause of the efflorescence.

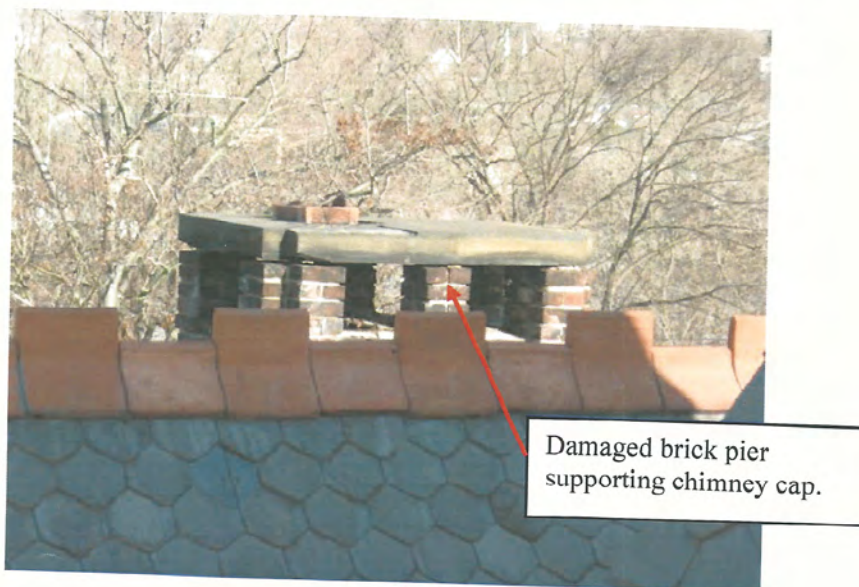


Efflorescence in brick at southwest corner



Close up of the efflorescence in the brick alongside the downspout

- The chimney repairs will include repointing and partial reconstruction of portions of the top of two of the chimneys. Repairs for the top of the west and north chimneys will include removal and replacement of the caps and rebuilding portions of the brick directly beneath the caps which has deteriorated. The north chimney was previously repaired but the repair is starting to crack and the mortar is spalling.



North chimney viewed looking north



Close up of damage to the north chimney viewed looking south

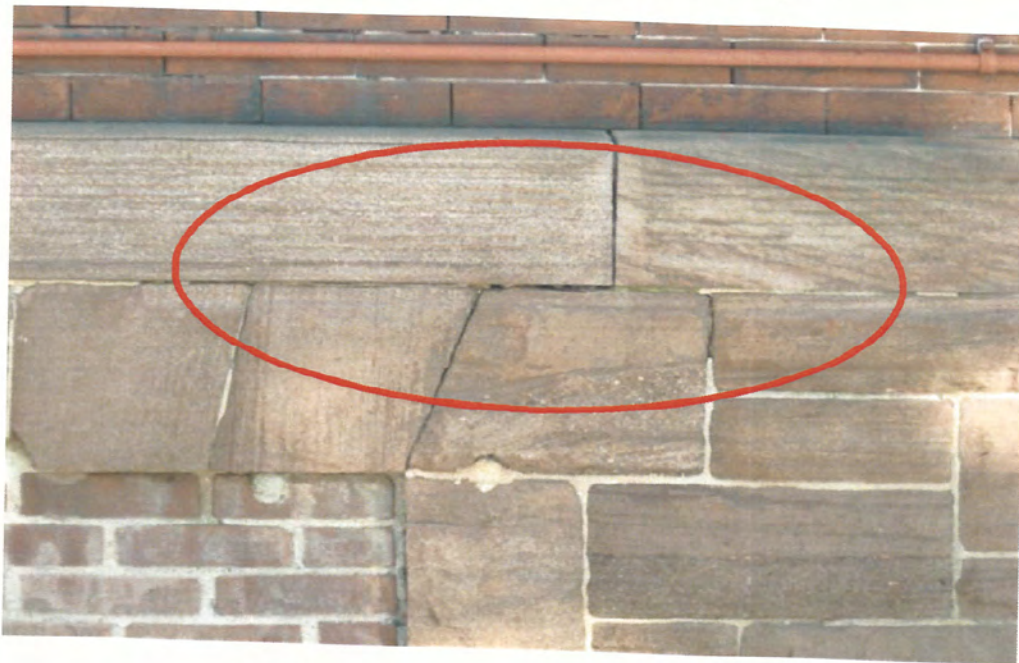


West chimney with spalling mortar and damaged brick

- Spalling of the mortar in the cut stone foundation walls was observed. Similar to the brick walls described above, the areas where spalling has occurred will permit water to enter into the joints and cause additional damage.



Spalling mortar in stone foundation wall mortar joints



Voids in cut stone foundation wall mortar joints



Spalled mortar in stone foundation wall and brick wall above

Recommendations:

All areas where water damage has occurred should be examined for the extent of deterioration to the members. This would include removing the plaster on the walls and ceilings on the 3rd floor. All members with staining should be probed to determine if there is rot and the depth of the rot. At locations where the water staining is visible in the plaster at the masonry walls, a portion of the plaster should be removed to examine the condition of the masonry. After the extent is documented, repairs will be prescribed to restore the structural integrity of the members.

The mortar joints which are exhibiting spalling and voids must be cleaned of all debris and loose mortar and repointed. Any damaged bricks should be replaced. Limestone caps that are cracked should be removed and replaced if they cannot be repaired.

At the windows where the bricks have shifted and voids are present in the mortar joints, the bricks should be removed and carefully rebuilt with proper anchorage to the inner wythes of masonry or the wood wall framing.

The locations where water is infiltrating the outer wythe of brick must be determined to eliminate the efflorescence. All voids or openings in the brick where water is entering into the walls must be sealed with the appropriate materials.

Each of the chimneys will require re-pointing and in some cases rebuilding of portions of the chimney to properly repair them.

All of the mortar joints in the cut stone foundation walls must be cleaned of all loose deteriorating mortar and other debris. After this procedure is complete the joints must be repointed to prevent water from entering into the building.

Results of Asbestos and Lead Paint Testing:

The test results indicate that the roofing assemblies contain asbestos material only in the asphalt patches around the chimney and on the valley flashings. These materials must be removed and disposed of according to local, state and federal guidelines as part of roof replacement work. Lead paint was detected on wood surfaces on the exterior of the building as well as wood and plaster components in the interior spaces on the 3rd floor. These surfaces must be identified in the construction documents so that workers know that they are dealing with the lead painted materials so that they use the proper attire and equipment to protect themselves. (see the attached pre-renovation investigation asbestos and lead paint report)

Construction Cost Estimate for Roof Replacement

Description	Quantity	Cost/Unit	Total
<i>Division 02</i>			
Remove existing slate roof & associated parts down to deck	5375 sq.ft.	\$ 1.50	\$ 8,062.50
Asbestos abatement (allowance)			\$ 12,000.00
Remove & replace damaged wood decking (30% allowance)	1612 sq.ft.	\$ 3.00	\$ 4,836.00
<i>Division 04</i>			
Re-pointing & miscellaneous masonry repairs at chimneys			\$ 15,000.00
Investigation & cleaning of Chimneys (allowance)			\$ 25,000.00
Power wash and re-pointing of masonry at exterior walls	5000 sq.ft.	\$ 35.00	\$ 175,000.00
Rebuild deteriorated masonry	40 sq.ft.	\$ 130.00	\$ 5,200.00
Preparation and restoration of stone banding	1050 sq.ft.	\$ 45.00	\$ 47,250.00
<i>Division 06</i>			
½' exterior plywood sheathing	5375 sq.ft.	\$ 3.00	\$ 16,125.00
<i>Division 07</i>			
Install new membrane on flat roof	950 sq.ft.	\$ 14.00	\$ 13,300.00
Slate roof on ice & water shield	5275 sq.ft.	\$ 49.60	\$ 261,640.00
Copper hip & valley flashing	840 lf	\$ 50.00	\$ 42,000.00
Copper gutters & downspouts	540 lf.	\$ 32.75	\$ 17,690.00
<i>Miscellaneous</i>			
<i>Division 05</i>			
Misc. metals for roof structure (allowance)			\$ 13,000.00

Division 06

Remove & replace damaged
exterior wood components
(allowance)

\$ 5,000.00

Reinforce damaged wood
structural framing in
attic(allowance)

\$ 10,000.00

Division 09

Sand, prime & paint wood trim

\$ 30,000.00

\$ 686,103.50

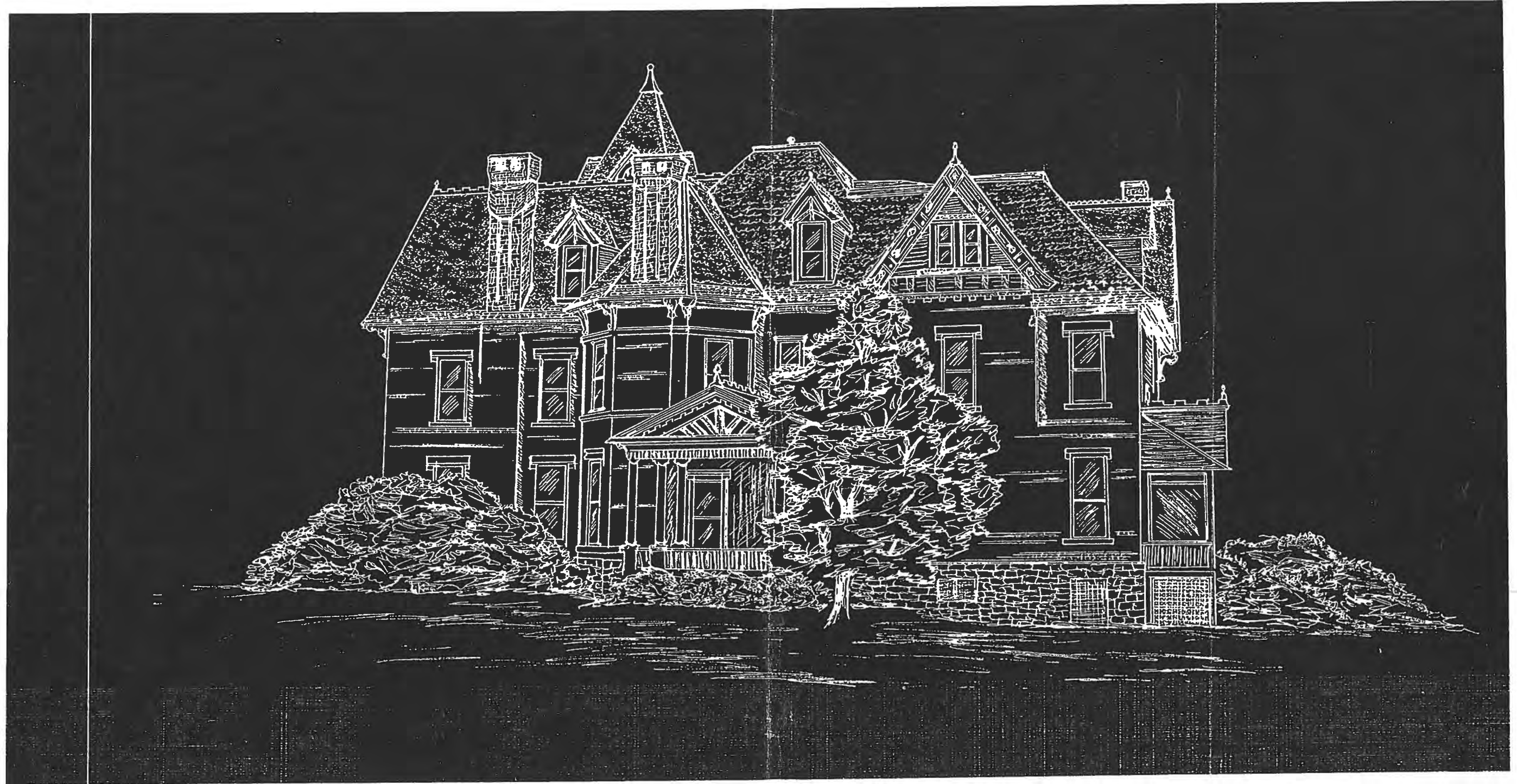
SUB TOTAL

Soft cost include architectural &
structural fees, construction and
design contingencies, testing,
printing & other miscellaneous
costs

\$ 160,000.00

\$ 846,103.50

TOTAL



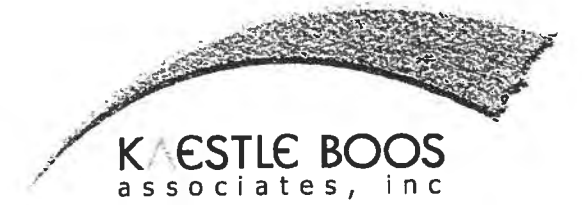
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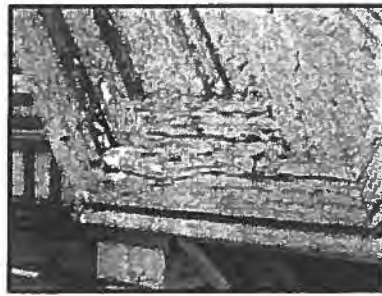
EXISTING NORTH ELEVATION
Tuttle House

Naugatuck, CT

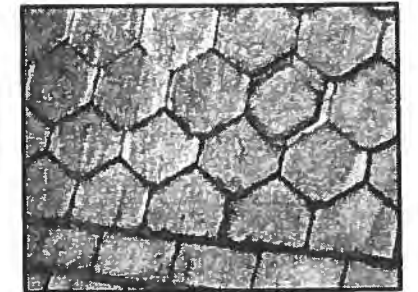
February 10, 2010

SCALE: 3/32" = 1'-0"





ALTERNATE: REPAIR AND REPOINT BRICK VENEER



09050.00

**EXISTING EAST ELEVATION
Tuttle House**

Naugatuck, CT

February 10, 2010

SCALE: 3/32" = 1'-0"








09050.00

EXISTING SOUTH ELEVATION
Tuttle House

Naugatuck, CT
 February 10, 2010

SCALE: 3/32" = 1'-0"



-  PREPARATION AND INSTALLATION OF STONE BANDING RESTORATION
-  REBUILD MASONRY
-  POWER WASH AND RE-POINT



09050.00

**EXISTING WEST ELEVATION
Tuttle House**

Naugatuck, CT
February 10, 2010




SCALE: 3/32" = 1'-0"



**PROJECT
NORTH**



KAESTLE BOOS
associates, inc

-  PREPARATION AND INSTALLATION OF STONE BANDING RESTORATION
-  REBUILD MASONRY
-  POWER WASH AND RE-POINT



09050.00

**EXISTING NORTH ELEVATION
Tuttle House**

Naugatuck, CT
February 10, 2010

SCALE: 3/32" = 1'-0"





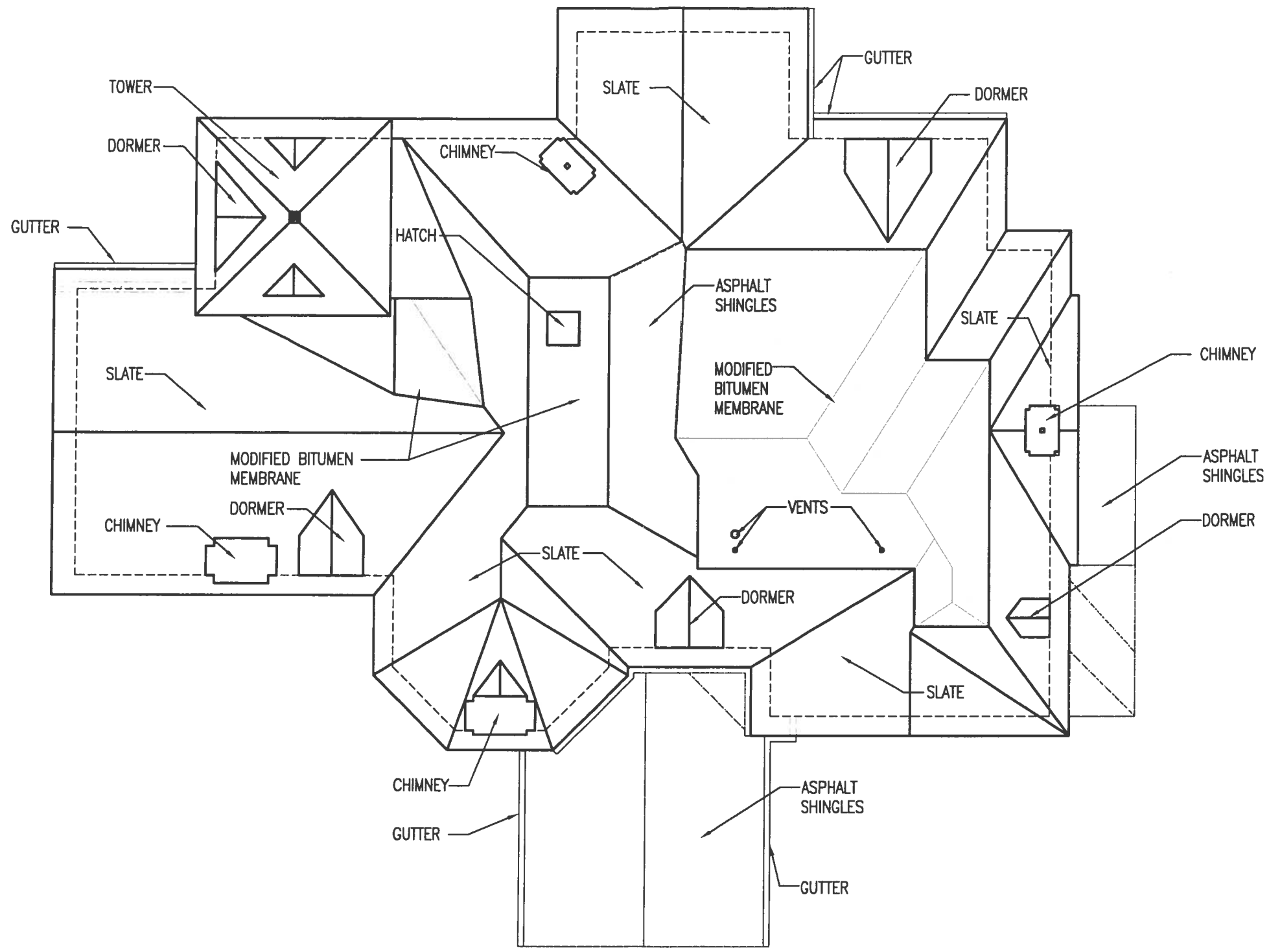
09050.00

**EXISTING EAST ELEVATION
Tuttle House**

Naugatuck, CT
February 10, 2010

SCALE: 3/32" = 1'-0"



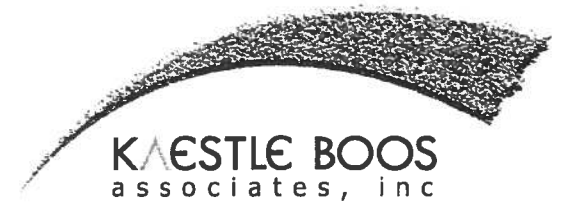


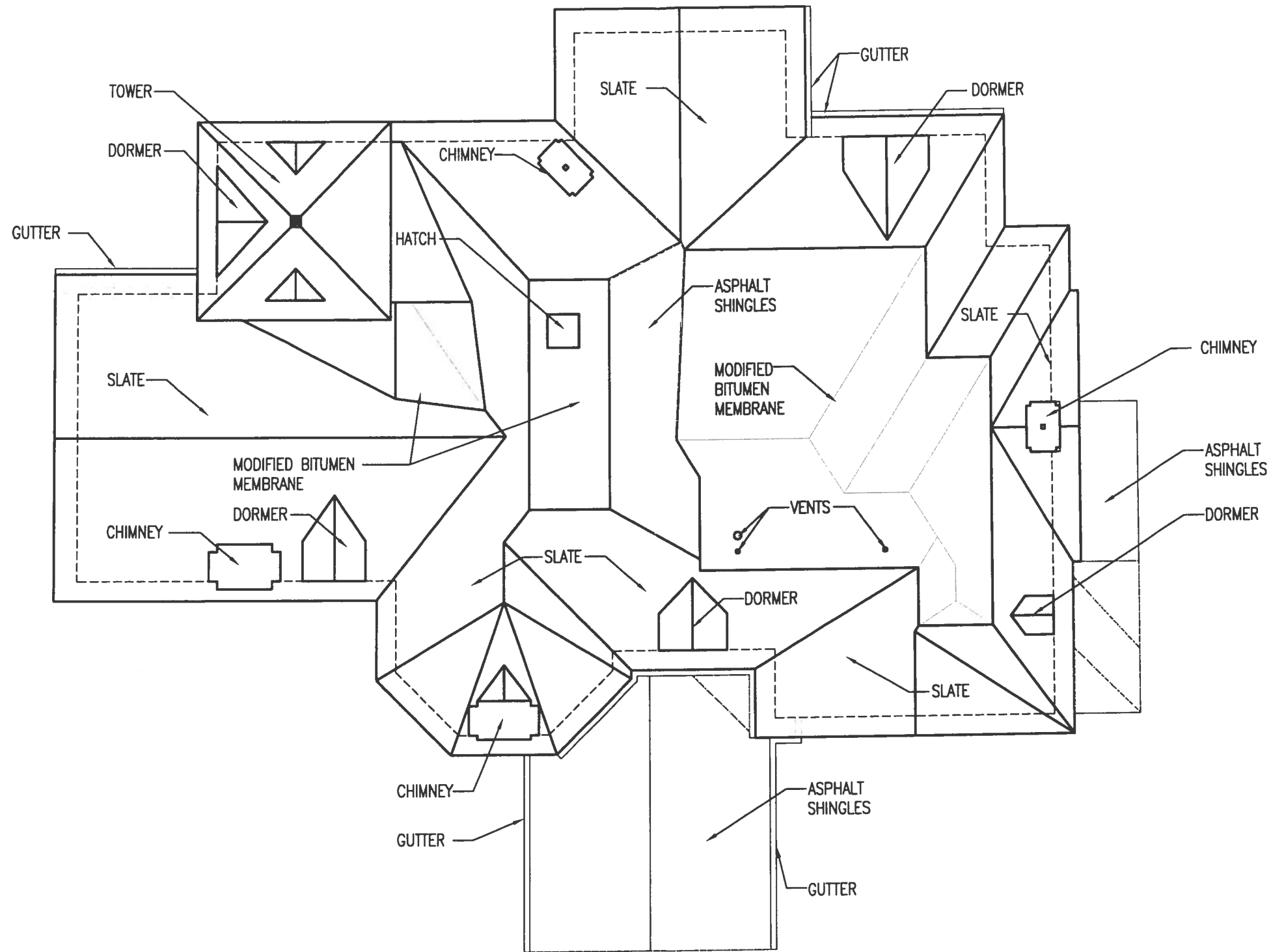
09050.00

EXISTING ROOF PLAN
Tuttle House

Naugatuck, CT
 February 10, 2010

SCALE: 3/32" = 1'-0"





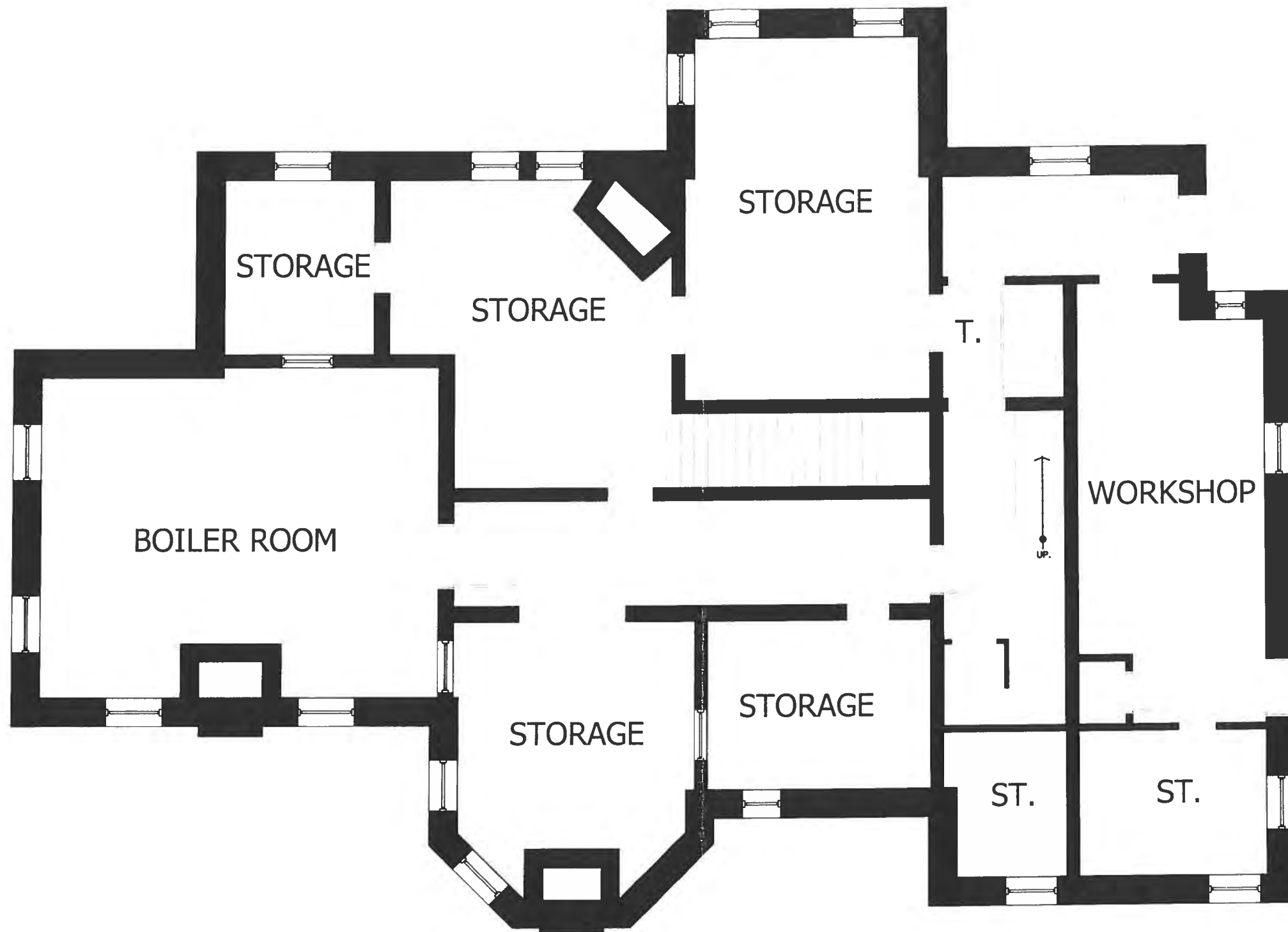
09050.00

EXISTING ROOF PLAN
Tuttle House

Naugatuck, CT
 February 10, 2010

SCALE: 3/32" = 1'-0"





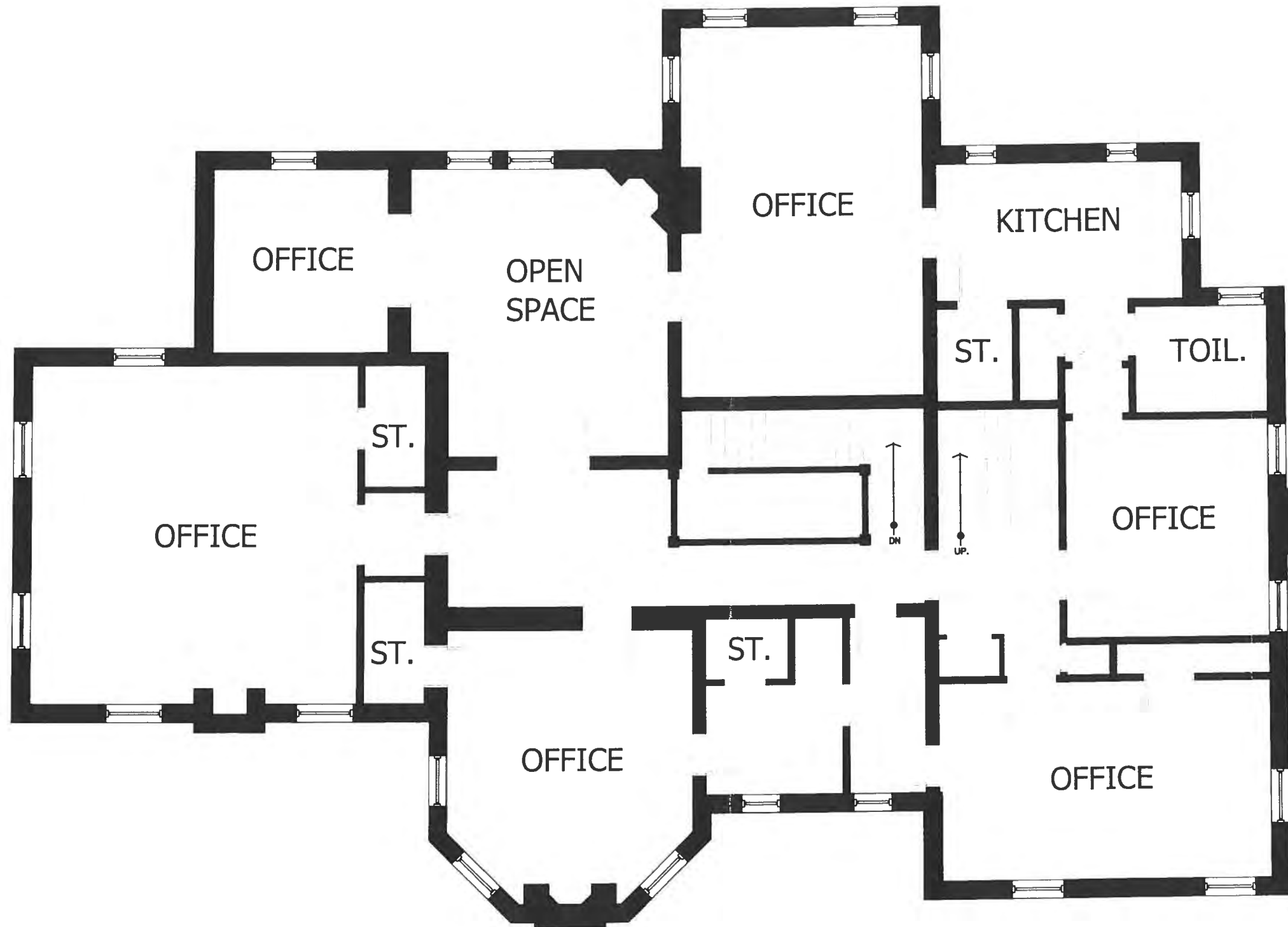
09050.00

**EXISTING BASEMENT FLOOR PLAN
Tuttle House**

Naugatuck, CT
February 10, 2010

SCALE: 1/8" = 1'-0"





09050.00

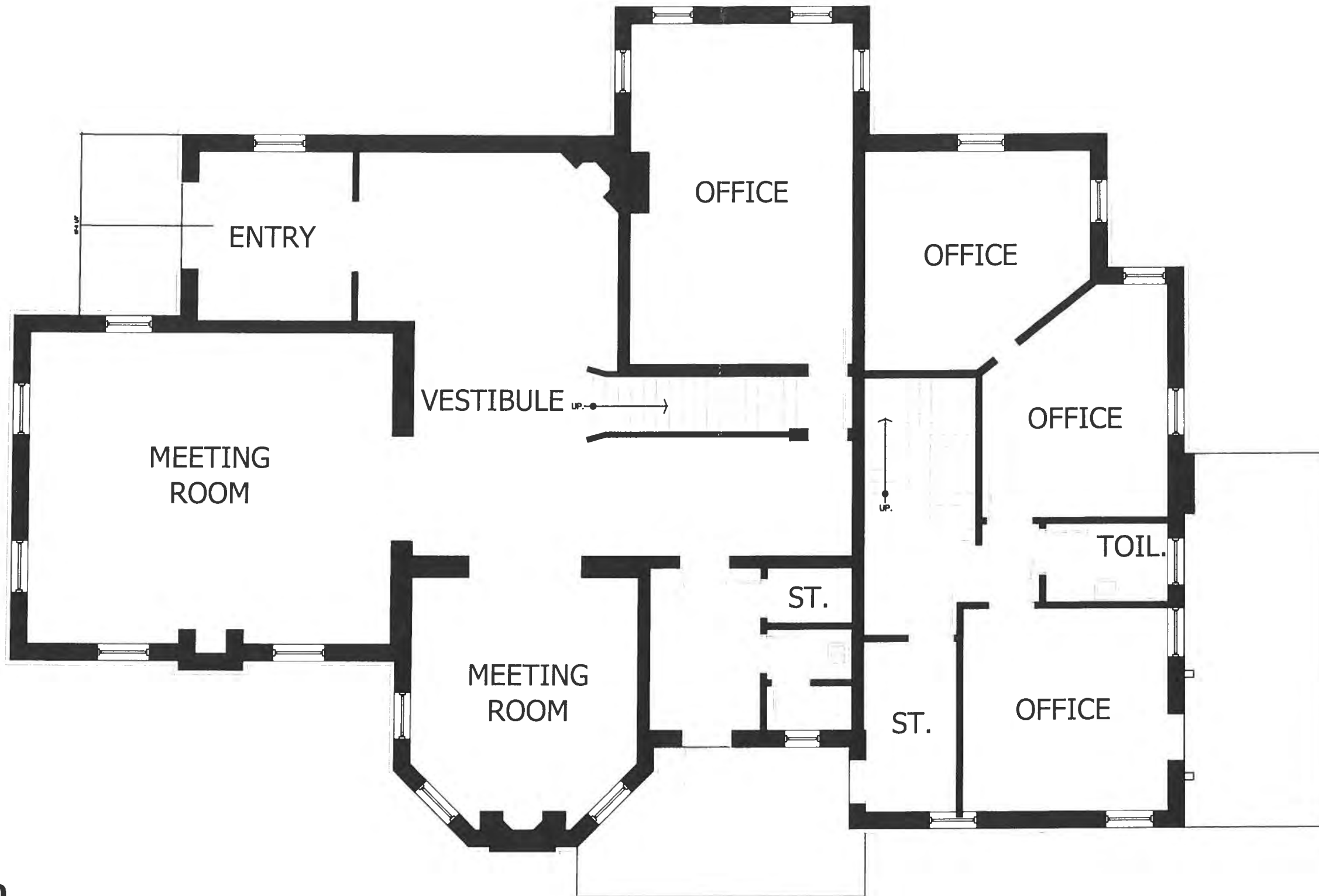
**EXISTING SECOND FLOOR PLAN
Tuttle House**

Naugatuck, CT

February 10, 2010

SCALE: 1/8" = 1'-0"



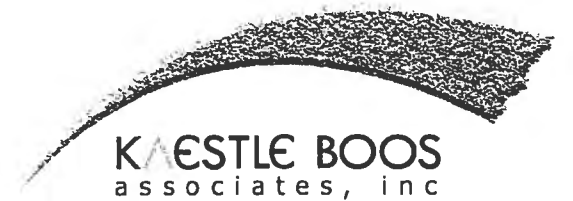


09050.00

EXISTING FIRST FLOOR PLAN
Tuttle House

Naugatuck, CT
 February 10, 2010

SCALE: 1/8" = 1'-0"





REPORT

PRE-RENOVATION INVESTIGATIVE SURVEY FOR ASBESTOS-CONTAINING MATERIALS AND LEAD BASED PAINT TUTTLE HOUSE NAUGATUCK, CONNECTICUT

Prepared for

Naugatuck Board Of Education
Naugatuck, Connecticut

Prepared by

TRC
Windsor, Connecticut

January 2010



**PRE-RENOVATION
INVESTIGATIVE SURVEY FOR
ASBESTOS-CONTAINING MATERIALS
AND LEAD BASED PAINT
TUTTLE HOUSE
NAUGATUCK, CONNECTICUT**

Prepared for
Naugatuck Board Of Education
Naugatuck, Connecticut

Prepared by
TRC
Windsor, Connecticut


Henry Laliberte
Project Manager

TRC Project No. 108590-0330-0000
January 2010

TRC
21 Griffin Road North
Windsor, Connecticut 06095
Telephone (860) 298-9692
Facsimile (860) 298-6380

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EXECUTIVE SUMMARY

On December 12, 2009 TRC of Windsor, Connecticut conducted an inspection for suspect asbestos-containing materials (ACM) at the Tuttle House Board of Education building located at 380 Church Street in Naugatuck, Connecticut. The inspection was initiated prior to planned renovation activities in accordance with USEPA Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAPS) requirements.

The scope of the inspection was limited to the roof and attic of the Tuttle House. A Connecticut licensed asbestos inspector from TRC conducted the inspection in accordance with USEPA AHERA protocols and ASTM Standard E2356-04. Bulk samples of suspect materials were collected and analyzed via polarized light microscopy (PLM) method at CTDPH/NVLAP accredited laboratories. ACM was identified as roof flashing materials. ACM to be impacted by renovation activities must be removed prior to disturbance in accordance with OSHA, USEPA, CTDPH, and CTDEP standards for asbestos abatement/disposal. Detailed results of the asbestos survey can be found in Tables 1-3 and Appendices A through C.

A Connecticut licensed lead inspector from TRC conducted a LBP survey throughout the attic interior and exterior of the Tuttle House and lead paint was identified on various components on the structure that is scheduled for impact. Exposure levels for lead in the construction industry are regulated by OSHA 29 CFR 1926.62. Construction activities disturbing surfaces containing lead paint which are likely to be employed, such as grinding, cutting, and demolishing, has been known to expose workers to airborne levels of lead in excess of the permissible exposure limit (PEL). The Contractor shall conduct demolition work in conformance with the OSHA regulations, utilizing engineering controls and personal protective equipment. In addition, disposal of construction waste containing lead paint is subject to regulation under both the CTDEP Hazardous and Special Waste Management (22a-209-1 through 16; 22a-449(c)-11; 22a-449(c)-13; 22a-449(c)-100 through 110; and 22a-454) and USEPA RCRA Hazardous Waste Management (40 CFR Parts 260 through 274) regulations. However, scrap metal is exempt from regulation under the CTDEP/USEPA Hazardous Waste Regulations provided it is properly recycled. The Contractor shall recycle any lead painted scrap metal

at an approved scrap metal recycling facility. Detailed results of the lead survey can be found in Table 4 and Appendix D.

PROJECT OUTLINE

Project Address: Tuttle House Board of Education Building
380 Church Street, Naugatuck, CT

TRC Project No.: 108590-0330-0000

TRC Project Manager: Henry Laliberte

Asbestos Inspector(s): Jennifer Peshka (LIC #000198)
Hilton Hernandez (LIC #000424)

Lead Paint Inspector(s): Jennifer Peshka (LIC #002163)

Dates of Inspection: December 12, 2010

Asbestos Identified: Yes

Lead Paint Identified: Yes

Additional Notes:

The site investigation was limited to the collection and analysis of suspect asbestos-containing materials from the roof and attic of the building.

0001066 FP **PRSR T3 0 1484 06096
JENNIFER PESHKA
21 GRIFFIN RD
WINDSOR CT 06095

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health (800) 600-7003
P.O. Box 340306
M.S. #1200A <http://www.dph.state.ct.us>
Hartford, CT 06134-0306

Sincerely,

J. ROBERT GALVIN, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

- Detach and sign each of the cards on this form.
- Display the large card in a prominent place in your office or place of business.
- The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.

• The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT - INSP/MGMT PLANNER

JENNIFER PESHKA

LICENSE NO.
000198
CURRENT THROUGH
09/30/10
VALIDATION NO.
03-944659

SIGNATURE
COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME

JENNIFER PESHKA

VALIDATION NO.
03-944659

LICENSE NO.

000198

CURRENT THROUGH

09/30/10

PROFESSION

ASBESTOS CONSULTANT-INSP/MGMT. PLANNER

SIGNATURE
COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Jennifer Peshka

has successfully completed the
**Asbestos Site Inspector Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763**

conducted by

**ATC Associates Inc.
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070**

Gregory J. Morsch

Principal Instructor

February 26, 2009

Date of Course

February 26, 2010

Expiration Date

Gregory J. Morsch

Regional Manager

SIAR-3039

Certificate Number

February 26, 2009

Examination Date

0001064 FP **PRSR T3 0 1464 06095
JENNIFER PESHKA
21 GRIFFIN RD
WINDSOR CT 06095

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health (800) 500-7603
P.O. Box 340306
M.S.#12MQA <http://www.dph.state.ct.us>
Hartford, CT 06134-0306

Sincerely,



J. ROBERT GALVIN, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

- Detach and sign each of the cards on this form.
- Display the large card in a prominent place in your office or place of business.
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4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A

LEAD INSPECTOR RISK ASSESSOR

JENNIFER PESHKA

CERTIFICATION NO.
002163
CURRENT THROUGH
09/30/10
VALIDATION NO.
03-944658


SIGNATURE

J. Robert Galvin, MD, MPH, MHA
COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME

JENNIFER PESHKA

VALIDATION NO.
03-944658

CERTIFICATION NO.
002163

CURRENT THROUGH
09/30/10

PROFESSION

LEAD INSPECTOR RISK ASSESSOR


SIGNATURE

J. Robert Galvin, MD, MPH, MHA
COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Jennifer Peshka

15 Pequot Street, New Britain, CT 06053

has successfully completed the

INSPECTOR RISK ASSESSOR REFRESHER

Training Course

conducted by

ATC Associates Inc.

73 William Franks Drive

West Springfield, MA 01089

(413) 781-0070

Cheryl Kolbig

Principal Instructor

May 29, 2009

Date of Course

May 29, 2009

Exam Date

CTLRAR-236

Certificate Number

May 29, 2010

Expiration Date

Training received complies with the requirements of the Connecticut Department of Public Health pursuant to Section 20-477 of the Connecticut General Statutes.

Dregory J. Mouch

Training Manager



State of Connecticut

Lookup Detail View

Name

Name
HILTON HERNANDEZ

License Information

License Type	License Number	Expiration Date	Granted Date	License Name	License Status	Past Discipline or Pending Charges
Asbestos Consultant-Inspector	424	01/31/2011	05/12/2000	Hilton Hernandez	ACTIVE	None

Generated on: 1/20/2010 2:58:17 PM

CERT# A-509 - 372

**CHEMSCOPE TRAINING DIVISION
ASBESTOS INSPECTOR REFRESHER
4 HOUR TRAINING CERTIFICATE**

Hilton Hernandez

21 Griffin Road North , Windsor CT

Has attended an 4 hour annual refresher course on the subject discipline on

06/04/2009 and has passed a written examination.

"The person receiving this certificate has completed the requisite training required for asbestos accreditation as an inspector under TSCA Title II"

Course topics include a review and update on asbestos health hazards, functions of inspectors and management planners, building systems, planning, inspecting for asbestos, sampling and analysis, respiratory protection, government regulations and preparing the inspection report.

Examination Date: 06/04/2009

Expiration Date: 06/04/2010

This training course has been accredited by the State of Connecticut.



Ronald D. Arena or **John Rowinski**
Training Director Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 0647
(203) 865-5605

TABLES

**TABLE 1
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS
TUTTLE HOUSE
NAUGATUCK, CONNECTICUT**

Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
1	Attic	Plaster (skim & base coats)	ND<1%
2	Attic	Plaster (skim & base coats)	ND<1%
3	Attic	Plaster (skim & base coats)	ND<1%
4	Attic	Plaster (skim & base coats)	ND<1%
5	Attic	Plaster (skim & base coats)	ND<1%
6	Tower	Plaster (skim & base coats)	ND<1%
7	Attic	Plaster (skim & base coats)	ND<1%
8	Roof - Chimney	Flashing tar	30% Chrysotile
9	Roof - Valley	Flashing tar	30% Chrysotile
10	Roof	Vapor barrier	ND<1%
11	Roof	Vapor barrier	ND<1%
12	Roof	Vapor barrier	ND<1%

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

NAD No asbestos detected

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

* Quantified by PLM Point Counting techniques

**TABLE 2
IDENTIFIED ASBESTOS CONTAINING MATERIALS (1%)
TUTTLE HOUSE
NAUGATUCK, CONNECTICUT**

Material	Sampled-Assumed (mo/yr)	General Location	NESHAP Category	AHERA Category	Estimated Quantity
Perimeter And penetration flashing	Sampled 12/2009	Roof	Category I Non Friable	Miscellaneous	500 SF

** Roof tars have been completely exempted from OSHA Asbestos regulations and, as a Category I Non-friable material, do not need to be removed from a structure prior to renovation/demolition under EPA Asbestos NESHAP regulations and, so long as the materials are exterior to a structure and will remain Category I Non-friable materials during renovation/demolition, are not covered under the CTDPH Asbestos Abatement standards. In addition, as Category I Non-friable materials, the roof tars do not need to be disposed of as asbestos waste under the EPA Asbestos NESHAP regulations; however, the CTDEP special waste regulations would not allow the material to be disposed of as general construction waste within the State of Connecticut. Disposal of the roof tars as general construction waste (so long as the materials are not rendered into a state which would define them as regulated asbestos-containing materials (RACM), i.e., friable) is, however, allowed in other states such as Massachusetts.*

AHERA Categories = thermal system insulation (TSI), surfacing material or miscellaneous
 NESHAP Categories = friable, category I non-friable or category II non-friable
 Friable = crumbled, pulverized or reduced to powder by hand pressure when dry
 Category I Non-friable = packings, gaskets, resilient floor covering and asphalt roofing
 Category II Non-friable = all non-friable that is not Category I

TABLE 3
CONFIRMED NON-ASBESTOS CONTAINING MATERIALS
CENTRAL AVENUE ELEMENTARY SCHOOL
NAUGATUCK, CONNECTICUT

Material	General Location
Plaster (skim & base coats)	Attic and Tower
Vapor Barrier	Roof

TABLE 4 SUMMARY OF LEAD PAINT XRF MEASUREMENTS TUTTLE HOUSE NAUGATUCK, CONNECTICUT					
Structure	No. of Measurements	Calibrations	Void	Lead Detected	No Lead Detected
Building	27	7	0	18	9

See Lead Paint XRF Measurement Table in Appendix F.

APPENDIX A
LABORATORY AND INSPECTOR ACCREDITATIONS



Protecting Worker Health

The American Industrial Hygiene Association

acknowledges that

TRC Environmental Corporation

21 Griffin Road North, Windsor, CT 06095

Laboratory ID: 100122

has fulfilled the requirements of the AIHA Laboratory Quality Assurance Programs (LQAP), thereby, conforming to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories*. The above named laboratory, along with all premises from which key activities are performed, as listed above, have been accredited by AIHA in the following:

ACCREDITATION PROGRAMS

- INDUSTRIAL HYGIENE Accreditation Expires: 8/1/2010
- ENVIRONMENTAL LEAD Accreditation Expires:
- ENVIRONMENTAL MICROBIOLOGY Accreditation Expires:
- FOOD Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with LQAP requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA website for the most current status of the scope of accreditation.

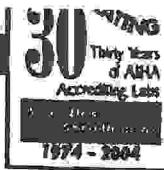
Laura R. McMahon

Laura R. McMahon
Chairperson, Analytical Accreditation Board

Lindsay E. Booher

Lindsay E. Booher, CIH, CSP
President, AIHA

Date Issued: 08/01/2008



AIHA Laboratory Quality Assurance Programs SCOPE OF ACCREDITATION

TRC Environmental Corporation
 21 Griffin Road North, Windsor, CT 06095

Laboratory ID: **100122**
 Issue Date: 08/01/2008

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or revocation. A complete listing of currently accredited Industrial Hygiene laboratories is available on the AIHA website at: <http://www.aiha.org/Content/LQAP/accred/AccreditedLabs.htm>

Industrial Hygiene Laboratory Accreditation Program (IHLAP)

Initial Accreditation Date: 09/01/1984

IHLAP Category	Field of Testing (FoT)	Method	Method Description <i>(for internal methods only)</i>
Core Program Testing	Polarized Light Microscopy (PLM)	EPA/600/R-93/116	
	Phase Contrast Microscopy (PCM)	NIOSH 7400	

The laboratory participates in the following AIHA* or AIHA-approved proficiency testing programs:

<input type="checkbox"/> Metals*	<input type="checkbox"/> Organic Solvents*
<input type="checkbox"/> Silica*	<input type="checkbox"/> Diffusive Sampler (3M)*
<input checked="" type="checkbox"/> Asbestos*	<input type="checkbox"/> Diffusive Sampler (SKC)*
<input type="checkbox"/> Bulk Asbestos*	<input type="checkbox"/> Diffusive Sampler (AT)*
<input type="checkbox"/> Beryllium*	<input type="checkbox"/> WASP ¹ (Formaldehyde)
<input type="checkbox"/> WASP ¹ (Thermal Desorption Tubes)	
<input type="checkbox"/> Pharmaceutical Round Robin	
<input type="checkbox"/> Compressed/Breathing Air Round Robin	
<input checked="" type="checkbox"/> NVLAP (determined at the time of site assessment)	

¹ Workplace Analytical Scheme for Proficiency

State of Connecticut, Department of Public Health
Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

TRC ENVIRONMENTAL CORPORATION

LOCATED AT 21 Griffin Road North IN Windsor, CT 06095
AND REGISTERED IN THE NAME OF Eric Plimpton

THIS CERTIFICATE IS ISSUED IN THE NAME OF Kathleen Williamson WHO HAS BEEN DESIGNATED BY THE REGISTERED OWNER/AUTHORIZED AGENT TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

ASBESTOS
AIR-FIBER COUNTING - PCM
BULK IDENTIFICATION - PLM

SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES December 31, 2009 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH DATED AT HARTFORD, CONNECTICUT, THIS 4th DAY OF January, 2008

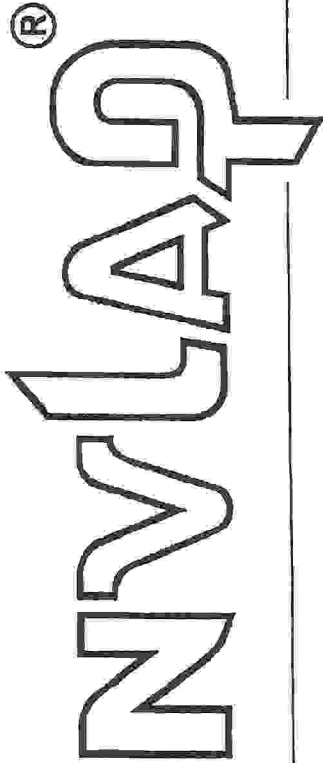


Registration
No.

PH- 0426

SUZANNE BLANCAFLOR, MS
CHIEF, ENVIRONMENTAL HEALTH SECTION

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101424-0

TRC Environmental Corporation
Windsor, CT

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2009-07-01 through 2010-06-30

Effective dates



Sally A. Bruce
For the National Institute of Standards and Technology



**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

TRC Environmental Corporation

21 Griffin Road North

Windsor, CT 06095

Ms. Kathleen Williamson

Phone: 860-298-6392 Fax: 860-298-6214

E-Mail: kwilliamson@trcsolutions.com

URL: <http://www.trcsolutions.com>

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 101424-0

NVLAP Code Designation / Description

18/A01 EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2009-07-01 through 2010-06-30

Effective dates

Dolly S. Bruce
For the National Institute of Standards and Technology

APPENDIX B

**ASBESTOS BULK SAMPLE CHAIN OF CUSTODY
FORMS**



21 GRIFFIN ROAD NORTH
 WINDSOR, CONNECTICUT 06095
 TELEPHONE (860) 298-9692
 FAX (860) 298-6380

CHAIN OF CUSTODY

Edition: September 2007
 Supersede Previous Edition

LAB ID # 37727

PROJECT NUMBER 18590, 0530, 0000

PROJECT NAME Tottle Bldg. - Naugatuck

PARAMETERS

24hr	48hr	3day	5day
24hr	48hr	3day	5day

INSPECTOR: (SIGNATURE) *Jennifer Resnka*

(PRINTED) Jennifer Resnka

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	DPM	Radium	Tern	IFPM <1/10	NOTES
			COMP	GRAB						
1	12/10	1003	X		Attic - room 7	X				Material
2		1005			Attic - room 5	X				Plaster (skin + base)
3		1000			Attic - main Rm	X				
4		1020			Attic - room 9	X				
5		1021			Attic - room 1	X				
6		1029			Tanner	X				
7		1030			Attic - main Rm	X				
8		0925			Roof chimney	X		X		Flashing
9		0922			Roof valley	X		X		Flashing
10		0920			Roof	X				Vapor Barrier
11		0921				X				
12		0921				X				

Relinquished by: (Signature) *Jennifer Resnka*

Date: 12/11/09

Relinquished by: (Signature)

Date:

Received by: (Signature) *Jennifer Resnka*

Date: 12/11/09

Received by: (Signature)

Date:

Time: 12:45

Time: 12:45

Time: (Printed)

Time: (Printed)

Remarks:

Page 1 of 1

APPENDIX C

PLM LABORATORY ANALYSIS DATA



Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

BULK ASBESTOS ANALYSIS REPORT

CLIENT: Naugatuck Board of Education

Site: Tuttle Building, Naugatuck, CT
Lab Log #: 37727
Project #: 108590.0330.0000
Date Received: 12/11/09
Date Analyzed: 12/15/09

RESULTS

Sample No.	Color	Homogeneous	Multi-Layered	Layer No.	Other Matrix Mat'ls	Asbestos %	Asbestos Type
1	White (skim coat)	No	Yes	1	--	ND<1%	None
1	Beige (base coat)	No	Yes	2	--	ND<1%	None
2	White (skim coat)	No	Yes	1	--	ND<1%	None
2	Beige (base coat)	No	Yes	2	--	ND<1%	None
3	White (skim coat)	No	Yes	1	--	ND<1%	None
3	Beige (base coat)	No	Yes	2	--	ND<1%	None
4	White (skim coat)	No	Yes	1	--	ND<1%	None
4	Beige (base coat)	No	Yes	2	--	ND<1%	None
5	White (skim coat)	No	Yes	1	--	ND<1%	None
5	Beige (base coat)	No	Yes	2	--	ND<1%	None
6	White (skim coat)	No	Yes	1	--	ND<1%	None
6	Beige (base coat)	No	Yes	2	--	ND<1%	None
7	White (skim coat)	No	Yes	1	--	ND<1%	None
7	Beige (base coat)	No	Yes	2	--	ND<1%	None
8	Black	Yes	No	--	--	30%	Chrysotile
9	Black	Yes	No	--	--	30%	Chrysotile
10	Black	Yes	No	--	60% cellulose	ND<1%	None
11	Black	Yes	No	--	60% cellulose	ND<1%	None
12	Black	Yes	No	--	60% cellulose	ND<1%	None

TRC LABORATORY ASBESTOS ANALYTICAL CERTIFICATIONS

NVLAP Lab Code 101424-0 AIHA #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052
NY #10980 WV# LT000356 RI #AAL-007C3 TX #300354 VT #AL014538 VA #3333 000283

Reporting limit- asbestos present at 1%
ND<1% - asbestos was not detected
Trace- asbestos was observed at level of less than 1%


Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

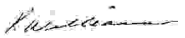
The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1982), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2010. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through August 1, 2010. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyst: Kathleen Williamson

QC Analyst: Helen Rimsa

Reviewed by: 
Laboratory Analyst

Approved: 
Signatory: Kathleen Williamson
Laboratory Manager

Date Issued: 12/17/09

TRC LABORATORY ASBESTOS ANALYTICAL CERTIFICATIONS

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APPENDIX D

LEAD PAINT XRF MEASUREMENT TABLE



Lead Based Paint Measurement Summary Table

Device(s): Niton XL-309 X Ray Fluorescence (XRF) Spectrum Analyzer, Serial #U688
 Niton 7007 X Ray Fluorescence (XRF) Spectrum Analyzer, Serial #V1044
 Site: 380 Church Street, Naugatuck, Connecticut
 Project #: 1064710330-0000
 Date(s): 12/10/2009
 Inspector: Jennifer Peshka (State of Connecticut License #002163), Hilton Hernandez (State of Connecticut License #002064)
 Ranges: (NEG<INC<POS): 0.0<0.05<0.05 (OSHA Compliance)

Number	Room	Side	Structure	Feature	Material	Color	Condition	Result	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
1								POS	NA		0	27.2	12/10/2009 9:30
2								POS	1.6	0.2	1	10.5	12/10/2009 9:35
3								POS	1.2	0.1	1	23	12/10/2009 9:35
4								POS	3.6	0.2	1.1	25.7	12/10/2009 9:36
5	Room 1	D	wall		plaster	white	deteriorated	NEG	0.0	0.1	1	8.3	12/10/2009 9:44
6	Room 2	D	wall		plaster	flower paper	deteriorated	NEG	0.0	0.0	1	18.5	12/10/2009 9:45
7	Room 2	D	wall	sill	wood	wood	deteriorated	POS	0.3	0.1	1.1	18	12/10/2009 9:46
8	Room 2	D	window	frame	wood	wood	intact	NEG	0.0	0.0	1	6.6	12/10/2009 9:47
9	Main Room	D	wall		plaster	dark brown	intact	POS	27.9	1.9	1.4	11.7	12/10/2009 9:48
10	Main Room	A	wall		plaster	dark brown	deteriorated	POS	33.1	3.4	1.4	6.8	12/10/2009 9:50
11	Room 4	A	wall		plaster	brown paper	deteriorated	NEG	0.0	0.0	1	14.4	12/10/2009 9:51
12	Room 5	C	wall		plaster	gold paper	deteriorated	POS	0.1	0.2	4.5	11.6	12/10/2009 9:56
13	Room 9	A	wall		plaster	tan	intact	NEG	0.0	0.0	1	24.6	12/10/2009 10:01
14	Room 9		ceiling		plaster	white	deteriorated	NEG	0.0	0.0	1	14.2	12/10/2009 10:03
15	Main Room		ceiling		plaster	white	deteriorated	NEG	0.0	0.0	1	14.1	12/10/2009 10:06
16	Main Room	D	wall	crown molding	wood	white	deteriorated	POS	3.4	0.9	1.8	11.3	12/10/2009 10:07
17	Room 8	D	wall		plaster	dark brown	deteriorated	POS	40.2	3.6	2.2	7.2	12/10/2009 10:09
18	Room 8		floor		wood	varnish	deteriorated	POS	0.2	0.1	1	10.9	12/10/2009 10:10
19	Room 7	B	wall		wood	varnish	intact	NEG	0.0	0.0	1	14	12/10/2009 10:11
20	Room 3		loose shutters		wood	black	deteriorated	POS	2.0	0.2	1.2	20	12/10/2009 10:15
21	Room 4		stairs	runner	wood	tan	deteriorated	POS	11.7	1.5	1.8	10.1	12/10/2009 10:24
22	Tower	A	wall		plaster	tan	deteriorated	NEG	0.0	0.1	3.8	19.9	12/10/2009 10:27
23	Exterior	D	window	sill	wood	red	deteriorated	POS	1.9	0.8	1.7	9.4	12/10/2009 10:46
24	Ex. Carport	B	railing	spindle	wood	red	deteriorated	POS	44.5	5.3	2.7	4.9	12/10/2009 10:47
25								POS	1.7	0.2	1	9.2	12/10/2009 10:49
26								POS	1.2	0.1	1	21.5	12/10/2009 10:50
27								POS	3.8	0.3	1.2	23.4	12/10/2009 10:50

All XRF readings <0.1 mg/cm2 = Below Detectable Levels (BDL)

Side A = Street side; Sides B,C,D follow clockwise



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