

# Conditions Assessment & Schematic Design Report

## The Asa Parlin House Acton, Massachusetts



October, 2012

menders, torrey & spencer, inc.

Menders, Torrey & Spencer, Inc.  
123 North Washington Street  
Boston, MA 02114  
[www.mendersarchitects.com](http://www.mendersarchitects.com)



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## ACKNOWLEDGMENTS

Prepared for: Town of Acton  
Municipal Properties Department  
472 Main Street  
Reading, MA 01720

Asa Parlin House Study Committee  
Dean Charter, Municipal Properties Director  
William Klauer, Chair, Acton Historical Commission  
William Dickinson, Acton Historical Commission

Prepared by: Menders, Torrey & Spencer, Inc. Architecture • Preservation  
123 North Washington Street  
Boston, MA 02114  
617.227.1477  
www.mendersarchitects.com

Lynne Spencer	Principal, Historic Preservation
Patrick Guthrie	Registered Architect
Thomas Burgess	Architectural Designer
Jack Brown	Architectural Designer
Lynn Smiledge	Preservation Planner

### Affiliated Consultants:

**Structural Engineer:**  
**Structures North Consulting Engineers**  
John Wathne, Principal  
60 Washington Street, Suite 401  
Salem, MA 01971  
978.745.6817

**Cost Estimator:**  
**Shawmut Design and Construction**  
Carl Jay, Director of Historic Preservation  
560 Harrison Avenue  
Boston, MA 02118  
617.622.7000

**Historic Building Consultant:**  
**Finch & Rose**  
Bill Finch  
50 Front Street  
Beverly, MA 01915  
978.922.4950

**Hazardous Materials:**

**Fuss and O'Neill**

Robert May  
45A Main Street  
Lakeville, MA 02347  
508.946.1747

**Mechanical, Electrical, Plumbing Engineer:**

**JRW Engineering**

Jeffrey R. White  
40 Town Farm Road  
Brookfield, MA 01506  
978.857.0305

Menders, Torrey & Spencer would like to thank the Actonians who committed time and effort to attending the public meeting, including representatives of organizations such as the Memorial Library, Historical Commission, Historic District Commission, Community Preservation Committee, Finance Committee and Board of Selectmen, as well as neighbors and individuals who care deeply about their community.

## EXECUTIVE SUMMARY

The Asa Parlin House presents a singular challenge: how to treat this relic of Acton's past in a way that is practical, sustainable and meets community needs. For nearly two decades since the acquisition of the property by the Town in 1996, various town bodies have wrestled with what to do with the remaining vestige of the original acquisition – the house itself and its immediate half acre site. Most of the land was given over to the parking lot for the Town Hall and Public Library with its new addition, with a portion set aside for a playground. As the building slipped quietly into decrepitude as an unoccupied structure, the grounds were maintained and show the promise of a pleasant green space, an oasis surrounded by the much traveled pavement of the large parking lot with its capacity for over 100 vehicles. There is great value in preserving and enhancing this green space for environmental and recreational purposes.

While the house has the air of neglect, its durability is a testament to the materials and craftsmanship of its period. Today the heavy timber frame structure of the core of the house, dated as 1860 but probably containing timbers of an earlier era, is structurally sound, as are the wood clad exterior and the shingled roof. In contrast, the mid-twentieth century additions are advanced in their deterioration. The core itself, approximately 20' by 30' in plan, contains some 600 square feet. Yes, there are some repairs needed to the frame – a section of sill to be replaced and some floor and roof joists to be reinforced – but this work is fairly straightforward.

Essentially this old house has functioned much like the old barns that we so admire – the massive timber beams are over-sized, the sloped gable roof sheds rain easily, and the few windows are sufficient to let light in and keep the draft out. Once a family dwelling and now an empty shell, the question facing the house and its stewards is two-fold:

- Should this property -- building and site -- be preserved?
- How should this property be used?

### **Background**

In 1999 the Town retained Turk Tracey & Larry Architects to prepare a conditions assessment and feasibility study. Its concluding recommendations were to retain the core of the original house, remove later 20th century additions, reinforce structural members, repair the roof and cladding, and keep the building painted. Studies for reuse suggested that it could provide a small meeting space but noted that building code regulations would necessitate various upgrades: handicapped access, restrooms, heating, etc. A decade later, the Acton Historical Commission prepared a reuse plan with attendant costs as part of its Community Preservation Act funding request to the Town Meeting. This followed much of the lead of the previous study with a budget cost of some \$390,000. The 2011 Town Meeting voted to approve \$100,000 for the first phase of the revitalization of the Asa Parlin House and site.

With this background and the CPA grant, the Town once again issued a request for proposals for design services, calling for a study but this time with a component to include the demolition of the 20th century additions and stabilization of the remaining structure. Yet there remained the outstanding question – what to do with the building itself? Other questions were also raised – who is the constituency, who would be responsible for the building, and how does the future of the building/site address community needs.

### **The Process**

With the selection of Menders, Torrey & Spencer Architects (MTS), the process of reassessing the physical condition commenced. The categorization of the tangibles – framing and cladding, foundations and roof, electrical wiring and plumbing – was undertaken by a team which included Structures North Consulting Engineers (structural engineer), JRW Engineering (mechanical, electrical and plumbing), Fuss & O’Neill EnviroScience (hazardous materials) and Finch & Rose (historical fabric analysis). Patrick Guthrie served as project architect with Lynne Spencer as principal.

Yet it was the intangibles – the history of the building itself and its future – that proved the most challenging. What does the story embodied in the building fabric, specifically the timber frame, tell us? Even the untrained eye could discern a motley story of a building evolving over time. The first recorded date of 1860 and the building’s association with the merchant Asa Parlin, and later with his son Asalph, caretaker at the Woodlawn Cemetery, doesn’t tell the whole story. Bill Finch with Pat Guthrie has been able to untangle a bit of that story, leading to the understanding that the earliest portion of this building, a single story gable roofed structure, dates to the era of hand hewn heavy timber. The framing could be as early as the late 18th century and was perhaps moved to this site from another location.

### **The Public Meeting**

It was the future use that most challenged the team. To begin to address the reuse of the building, the Study Committee consisting of Dean Charter, Municipal Properties Director, Bill Dickinson and Bill Klauer of the Historical Commission, and MTS organized a public meeting, inviting the public at large and various groups with special interests to attend. The local press was notified and the turn-out was impressive. Prior to this meeting a planning group had been convened and gave good guidance for the preparation for the public meeting.

In over two hours of discussion, a consensus began to emerge. High points included:

- The historical character and appearance of the core portion of the building is a significant element in the Acton Center Historic District.
- The core portion of the Asa Parlin House is worth saving. Demolition of the building is not in the best interest of the Town.

- Removal of the 20th century additions adds the value of reducing the size of the building and its maintenance and repair requirements.
- The building and site provide a visual buffer for the parking lot and contribute to the residential scale of the neighborhood.
- There is an opportunity to think of the property as a part of Acton's municipal campus.
- Removal of the entire building to gain 12 additional parking spaces does not seem like a worthwhile trade-off.
- The site as a green space is a great opportunity to provide passive recreation and environmental value.

Many ideas were offered for how the building could be used, including an art center, meeting space, and/or storage space for town records. Consensus on the desirability of the site for green space for passive recreation was widespread. The take-away seemed clear – preserve the early building and develop the site as open space. The question of building use remained unresolved.

### **The Recommendation**

The Study Committee worked through the possible reuse options in later meetings and essentially narrowed the selections to meeting space or records storage space. However, either one of those options would involve infrastructure and code improvements. And both also encountered the test of necessity; because Acton is soon undertaking a space planning master plan, advocacy for either use seemed somewhat mistimed. Hence, the following recommendations emerged:

- Preserve the early core building as an artifact of Acton's past by removing later additions, stabilizing the structure, and restoring the roof, siding, windows and doors, but do not make modern improvements; and
- Remove the current paved parking from the site and develop the landscape as a green space for use for community purposes such as farmers markets, plant sales, bake sales, picnics, etc.

By not making building code or infrastructure improvements, the building moves into a “study house” category – something to see and appreciate but not to actively use. This means that the future use of the building is pushed downstream, but it allows it to be considered in the context of the pending comprehensive assessment of town space needs.



## Next Steps

### Remove Hazardous Materials

This first step is to remove hazardous materials from the site. Abate the asbestos bearing materials.

**Estimated budget: \$60,000**

**Benefits:**

- This is required by law before any intervention at the site.

## AND

### Exterior Preservation Project

Remove 20th century additions; stabilize the structural frame; restore the roof (ideally with wood shingle roofing, although asphalt is acceptable), siding, windows and doors; paint the exterior; provide a fire detection system and basic lighting.

**Benefits:**

- Prepares the house for future renovation for active use such as meeting space.
- Provides approximately 20 years of building “life” with minimal maintenance such as painting the exterior.
- Preserves an authentic vestige of Acton’s early history.

**Estimated budget: \$285,000**

**Sources of financial support:**

- 2011 Community Preservation Act grant balance: \$80,000
- Apply for 2013 CPA grant of \$265,000 in November 2012 for Town Meeting vote in April 2013. Historic preservation category. (Includes abatement costs.)
- Consider applying for Massachusetts Preservation Project Fund grant in February/March 2013 with award in June 2013. Potential for \$50,000 matching grant.

**Site Work**

Remove the asphalt paving, grade and fill the parking area and area impacted by the addition demolition as necessary, and seed for turf.

**Benefits:**

- Retains the residential character of Woodbury Lane.
- Retains a bit of nature at the edge of a 100+ vehicle parking lot.
- Provides a place for community functions such as farmers markets, plant sales, bake sales, picnics, etc.
- Remains a part of Acton's municipal campus.

**Estimated budget: \$70,700**

**Sources of financial support:**

- Apply for a 2013 CPA grant of \$70,700 in November 2012 for Town Meeting vote in April 2013. Open Space category – recreational improvements.
- A project of Acton's Department of Public Works.

**Why tackle this now?**

In his book, *String Too Short To Be Saved*, Donald Hall talks about Yankee frugality, appreciation of the bits and pieces of the past, and what it means to remember and to signal a way forward for those who follow us. In many ways, that is the story of the little Asa Parlin House. It represents a real survivor of Acton's history, a pleasing old house to look at and appreciate, a place for current residents to enjoy its character and associated green space, and the possibility that future townspeople will enjoy use of the building.

But at present, time is not on the side of the building. To continue to ignore it is most certainly to enable demolition by neglect. Perhaps the costs will simply be too high to rationalize the investment. Indeed, the cost projections today are daunting thanks to 20th century inventions such as asbestos in joint compound. While water is by and large kept out of the building, the roof is nearing the end of its life. So far the building has escaped vandalism but its lonely presence could be seen as an attractive nuisance.

The Community Preservation Act and its mandates for historic preservation and open space offer real prospects for support of the stabilization and preservation projects. The Acton Historic Commission and the Acton Historic District Commission have stepped forward in leadership roles. The neighbors have expressed their preference to preserve the building and site. The time to act decisively has arrived for the Asa Parlin House and property.



## The Report

**Part One** of this study, Building History and Significance, provides a brief historical synopsis, a building history based on analysis of the framing, a physical description of the building, a list of character defining features, and recommendations for building preservation that are guided by *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. We believe that a building's "story" and its defining physical characteristics are valuable assets that should be respected and celebrated during the rehabilitation process. This part of the report provides a framework from which our recommendations are formulated.

**Part Two**, Existing Conditions, includes an examination of the physical conditions and infrastructure at the Asa Parlin House. It includes recommendations for structural improvements and hazardous materials remediation.

The findings and recommendations presented in Parts One and Two of the report build on the comprehensive assessment and reuse feasibility study performed by Turk Tracey & Larry Architects and summarized in the **1999 Reuse Feasibility Study for 17 Woodbury Lane**.

**Part Three**, Conceptual Design, is a feasibility study which contains four schematic designs for reuse. The accepted concept was chosen for further study and provided with a regulatory analysis. Outline drawings and specifications were created to inform Shawmut Design and Construction's development of a budgetary cost estimate for the selected rehabilitation scenario. The cost estimate includes the treatment recommendations from Part Two of this report. A cyclical maintenance plan is provided that will help the Town anticipate and budget for routine maintenance activities.

The **Appendix** includes the full reports prepared by consultants hired by MTS, the Reuse Feasibility Study performed by Turk, Tracey & Larry Architects (1999), presentations made at public meetings, and relevant historic resources.

## METHODOLOGY

The Conditions Assessment and Schematic Design report represents a collaborative effort between Menders, Torrey & Spencer, Inc. (MTS) and the Town of Acton. The Town was represented by Dean Charter, Director of Municipal Properties, who served as point of contact with MTS and facilitated access to local resources. The project team was assembled and coordinated by Lynne Spencer, principal preservationist at Menders, Torrey & Spencer, and Patrick Guthrie, registered architect, who together directed on-site investigations and prepared the report. They were assisted by Jack Brown, architectural designer, and Lynn Smiledge, preservation planner, who coordinated assembly of the final report.

The building investigation and documentation took place over several visits to the property in June 2012. Structures North performed a structural assessment of the building, commented on existing conditions and described the actions required to bring the structure into compliance with building code mandates. Bill Finch of Finch & Rose analyzed the timber framing, a process that involved selective removal of wall sheathing to expose the structure and fabric beneath; Bill produced an illustrated report on the historical evolution of the structure. Fuss & O'Neill assessed hazardous materials at the site and made recommendations for remediation. JRW Engineers assessed the mechanical, electrical and plumbing systems.

Measured drawings of the building were created using CAD and used in conjunction with photographs and narrative to document conditions and illustrate treatment recommendations at the building. Concurrently, schematic design options were created and presented to the Town, resulting ultimately in the generation of the final conceptual plan for further development. Outline plans and specifications for restoration and rehabilitation were informed by recommendations made by the subconsultants and based upon the approved conceptual design.

Shawmut Design and Construction developed cost estimates for treatment recommendations and rehabilitation of the building based on the outline drawings and specifications for restoration and the approved schematic design for reuse.

All photographs were taken by Menders, Torrey & Spencer, Inc. unless otherwise indicated. The final report was issued both as a printed document (2 copies) and in electronic format as a portable document format (pdf) on compact disc.

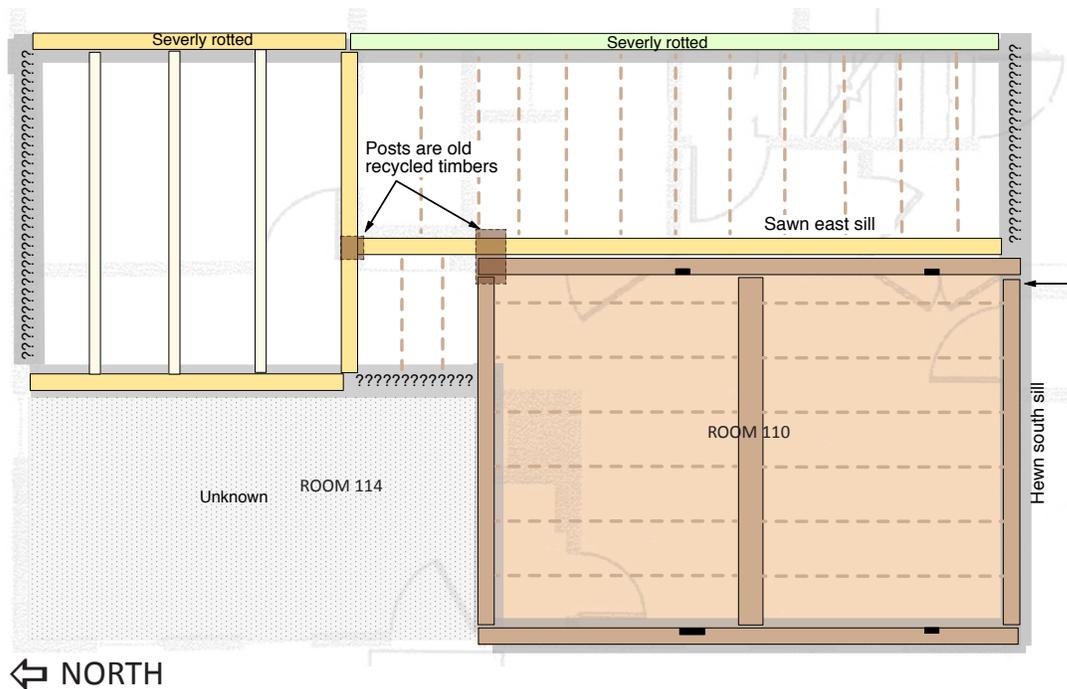


## BUILDING HISTORY

The house at 17 Woodbury Lane in Acton first appeared on local maps in 1860. From 1870, this vernacular style dwelling with Greek Revival elements was home to Asa Parlin, a merchant and descendant of one of Acton’s founding families. It was later occupied by Asaph Parlin, likely Asa’s son, a caretaker at the Woodlawn Cemetery. The house was purchased by the Town of Acton in 1996.



A preliminary study of the framing and historic evolution of the Asa Parlin House was undertaken by Turk Tracey & Larry Architects and summarized in their 1999 Reuse Feasibility Study for the building. Additional analysis of the framing elements by historic building consultant Bill Finch in 2012 strongly suggests that the original structure was a freestanding one-room, single story building with a north-south roof gable (shown as the rose-shaded Room 110 in the footprint below and Figure A on page 3). Framing elements in this portion include hand hewn pine/spruce members with mortise and tenon joinery that date to the late 18th or early 19th century. The lack of evidence for lath or plaster on the wall studs suggests that the structure was unfinished and probably served a utilitarian function rather than being part of a dwelling.



The rear (east) parallel ell, a mid-19th century addition, contains earlier timbers (posts and girts) that appear to have been recycled (Figure B at right). When the northwest addition was made in the last half of the 19th century (shown as the gray area labeled Room 114 in the figure on the previous page), the house was changed radically. The L-shaped plan was converted to the current rectangular block when the small original structure with its north-south gable was enveloped by a one and one-half story block of lighter timber framing with an east-west gable (Figure C on page 4.) The house has features of the Greek Revival, America's dominant architectural style between 1820 and 1850 in America. For annotated drawings illustrating the findings on the building's historic framing, please see the report by Finch & Rose in the appendix to this document. Photographs of the framing revealed during selective demolition appear below.

Further additions were made at the rear (east elevation) of the building in the 20th century. These are not treated in this report, which is limited to the study and rehabilitation of the late 18th and 19th century block of the Asa Parlin House.



Wall adjacent to bathroom.



West wall of front room.



Summer beam at facade.



Exposed wallpaper.

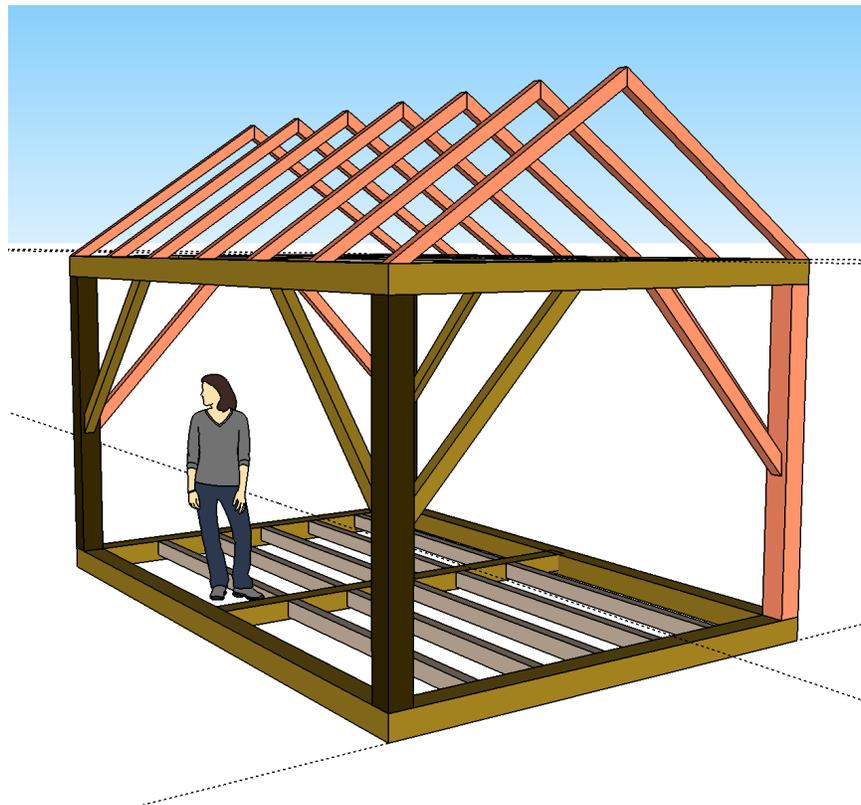


Figure A. Oldest framing on the site, origins unknown. It may have been built on site or moved to the site. The light colored elements are no longer extant.

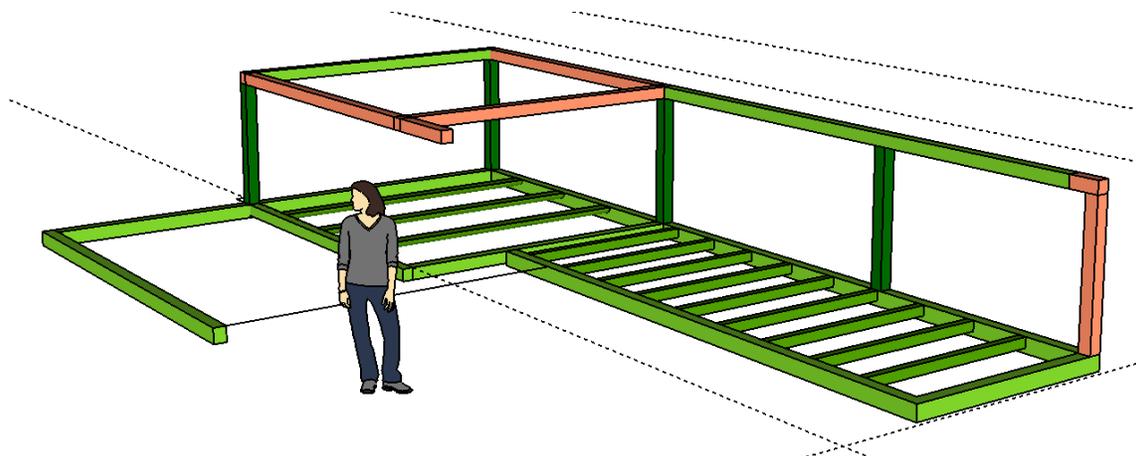


Figure B. Rear (east) addition featuring recycled framing elements. No clear date for this framing. It is an unusual frame of posts and girts that is only 60" tall, suggesting a possible series of shed roofs before the framing was continued above it in the Greek Revival form. The green elements are still extant.

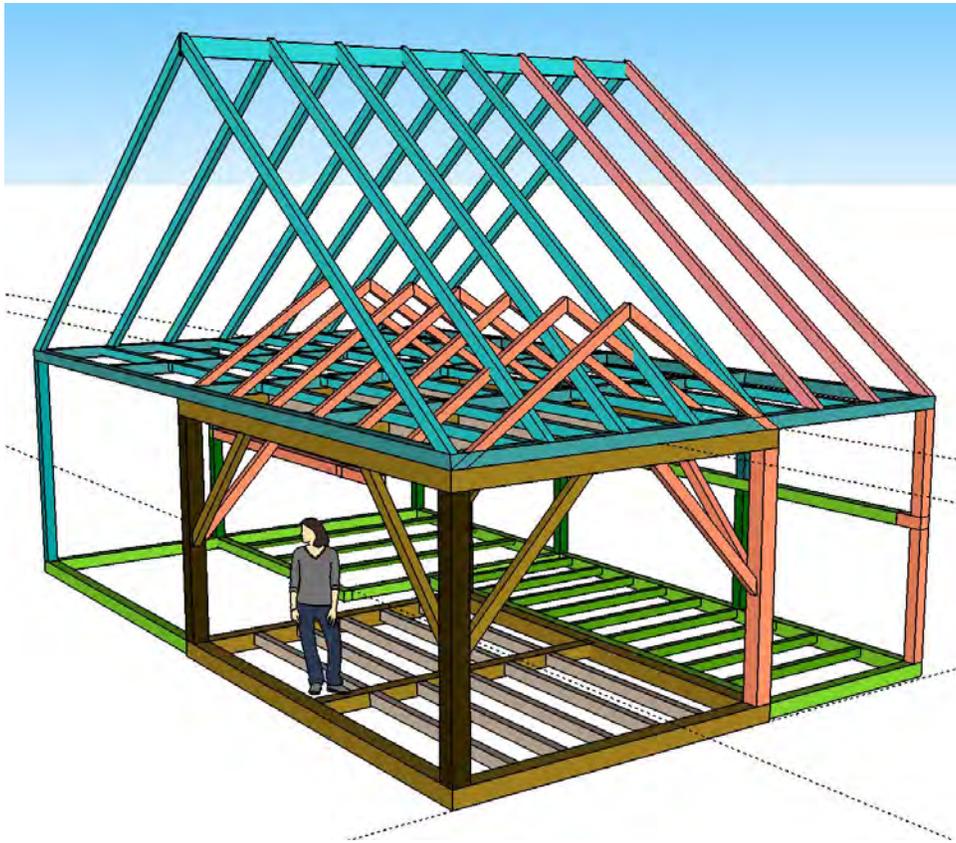


Figure C. Small original structure in the foreground enveloped by the later house block. This is the current configuration of the house block. The light colored elements are no longer extant.



## BUILDING DESCRIPTION



West elevation (facade). This is the least altered elevation, showing most clearly the Greek Revival form.



North elevation. The bulkhead is at the easternmost limit of the Greek Revival portion of the house.



East elevation. Perpendicular 20th century ells seen at the north and south ends hide most of the Greek Revival elements.



South elevation at junction with the 20th century addition. Here the Greek Revival form is lost under all the additions.

The description that follows is limited to the late 18th and early 19th century components of the Asa Parlin House. The house contributes to the Acton Center Historic District and provides a buffer between the 19th century residences on Woodbury Lane and the parking area of the civic campus.

### Exterior

Built on an east-west grade facing Woodbury Lane, the Asa Parlin House is sited with its facade (west elevation) located roughly eight feet behind a block granite retaining wall. The five-bay facade has an off-center single main entry flanked by irregularly placed six-over-nine double-hung sash. There are two six-over-nine windows at the second story gable. Fenestration at the other elevations includes two six-over-nine windows at the first floor at the north wall, two six-over-six and one single fixed sash at the east wall, and one six-over-nine window at the south wall.

The gable roof is clad in asphalt shingle and has a brick chimney centered at the ridge. The house rests on a granite block foundation. The main entry is approached by two granite steps. There is a bulkhead basement entry on the north elevation.

The building is clad in wood clapboard siding. Trim consists of narrow corner boards, rake boards, cornice returns and simple flat window surrounds. The raised four-panel wood door at the facade has flat side trim and a slightly pedimented lintel. There are wood windowboxes mounted on scroll brackets below the four first floor windows.

All windows on the primary and south elevations have wood shutters. The windows are protected by aluminum storms; the front door has a wood storm door.



West elevation (facade).



North elevation.



East elevation.



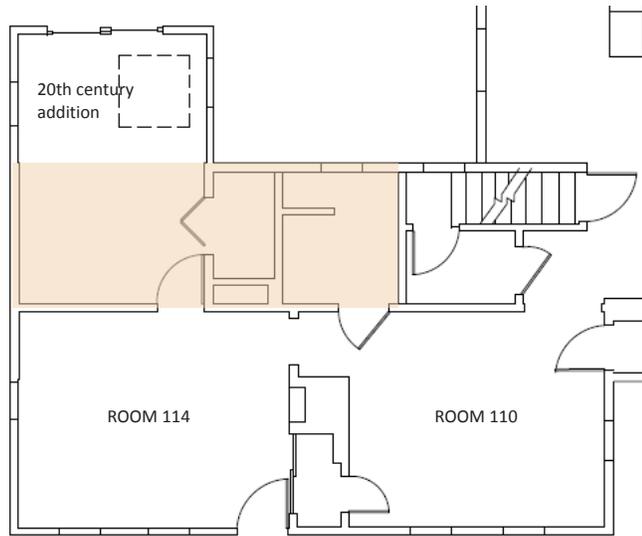
South elevation.

**Interior**

The 18th/19th century portion of the Asa Parlin House contains four rooms and a stairwell at the first floor. The shaded area on the plan below shows the 20th century modifications to the original rectangular house block.

Room 110, which represents the original freestanding structure, has painted plaster walls with a horizontal wood dado. There is unpainted wide flat trim and four-panel wood doors. The current narrow wood strip floors likely replaced wide plank flooring. The brick chimney has been enclosed in a partition that divides Room 110 from Room 114. The distinctive exposed wood framing is described in detail in the Finch & Rose report provided as an appendix to this report.

Room 114 has painted narrow flat trim. The narrow wood strip floor continuous with the floor in Room 110. The walls are plaster and there is no dado.



First floor plan.

A small bathroom and the stairway to the second floor occupy the rear parallel ell.



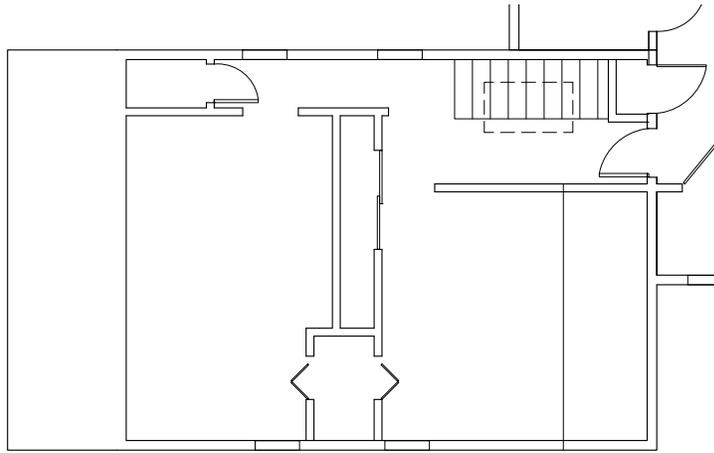
Bathroom on first floor.



Room 110 with view to Room 114 on first floor. Note narrow plank floors, simple flat trim, horizontal dado, exposed framing and covered brick chimney.



Second floor, original house block.



Second floor plan.

The second floor is divided into two rooms and a small half bath with a center wall of closets. The floors are carpeted. The walls are plaster board with simple flat trim. The ceiling is sloped under the gable up to flat about 7'6" above the finished floor.

## CHARACTER DEFINING FEATURES

Character defining features refer to the significant observable and experiential aspects of a building that define its architectural power and personality. They are critically important considerations whenever repairs or alterations are contemplated. Inappropriate changes to historic features can undermine the historical and architectural significance of the building, sometimes irreparably. Retaining a structure’s integrity is essential to eligibility for National Register of Historic Places status and for preservation grants such as Save America’s Treasures, the Massachusetts Preservation Projects Fund, and Community Preservation Act funds.

This survey considers the overall shape of the Asa Parlin House (the original block) and its materials, craftsmanship, decorative details, and various aspects of its site and environment – all elements that contribute to the building’s unique character. **All bolded features in the bulleted lists that follow should be retained to preserve the historic integrity and significance of the Asa Parlin House.**

### SITE AND ENVIRONMENT

- Sited on a secondary side street at the town center among mid- and late 19th century municipal buildings. Surrounded by grass lawns on three sides.

### SHAPE AND MASSING

- Rectangular plan with shallow gable roof

### STYLISTIC FEATURES

#### Materials

- Granite
- Wood
- Brick
- Glass



Asa Parlin House (circled) is located northwest of Town Hall (white building in foreground) and the town library (red brick building adjacent to Town Hall).



The Asa Parlin House and site are integral to the rural lane character and residential scale of Woodbury Lane.

Decorative & Stylistic Details: Exterior

- Block granite foundation and entry steps
- Wood window trim, corner boards, cornice returns, and pedimented door lintel
- Clapboards
- Multi-light double-hung wood windows
- Paneled wood door
- Wood shutters (Note: these were not original to the house and can be considered optional features.)



Corner board (at left) and cornice return.



Six-over-nine light window at facade.



Granite steps at main entry.



Pedimented lintel over entry door.

Decorative & Stylistic Details: Interior

- Plaster walls
- Wood trim and horizontal dado
- Paneled doors
- Exposed framing: The framing elements at the Asa Parlin House are its most important character-defining features. They provides clues to the evolution of the building and are rare and significant examples of traditional timber framing forms and techniques in New England.



Paneled door and wood dado in Room 110.



Exposed framing in Room 110.



Diagonal bracing revealed during framing investigation.



Wood pegs at summer beam in Room 110.



## PRESERVATION GUIDELINES

This section of the report describes how work performed on historic buildings should be approached in order to respect and preserve those elements that define their historic and architectural character. The character defining features of the Asa Parlin House identified in this report should be retained and preserved when possible.

Repairs, maintenance, and renovations at the Asa Parlin House should be guided by the significance of the building and site as framed by the National Register of Historic Places and their character defining features. *The Secretary of the Interior's Standards for the Treatment of Historic Properties* should be used as a guide. The *Standards* provide advice on the preservation and protection of cultural resources and recognize four building treatments: Preservation, Rehabilitation, Restoration and Reconstruction. The first three are relevant to this project and are defined below.

PRESERVATION is defined “as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a Preservation project.”

REHABILITATION is defined “as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural or architectural values.”

RESTORATION is defined “as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.”

## APPLICATION OF THE STANDARDS

### Additions

Additions to a historic structure should be respectful and subordinate to the original building. Although the addition should possess similar mass, proportions and materials, and can feature complementary stylistic details, it should not replicate the original building.



### Materials

When repairs are required, original building materials should be replaced in kind – granite for granite, brick for brick, wood for wood, slate for slate. When traditional replacement materials are not available or are economically unfeasible, substitute materials that mimic the look, feel, and workability of original materials may be considered. Care should be taken when deciding to use a synthetic material, however, since modern products may interface poorly with traditional building materials, offer limited longevity versus traditional materials, and often exhibit color shifts and other deteriorative changes.

### Masonry

Stone and brick elements should be replaced with matching material. Cast stone, which differs from natural stone in appearance, texture and workability, is generally not an appropriate substitute for natural material.

An appropriate mortar formula should be established and adopted for all repointing campaigns. Clear records of the mortar mix, proportions of tinting pigments, and the application technique, including the final strike, should be documented in the building owner's maintenance records. Actual mortar samples should be retained with the records along with a sample panel on the building.

### Wood Windows, Doors & Trim

Wood windows and doors are character defining features and essential contributing elements to a historic building's distinctive appearance. Repairing and weatherizing existing wood doors and windows is always the preferred approach for historic buildings and provides energy efficiency comparable to replacement elements. When windows have exceeded their useful lives and retention is not practical or economically feasible, an approach that combines repairing old windows where possible and introducing new windows where necessary is recommended. Where original windows cannot be salvaged, historically appropriate, high quality wood windows with pane configurations matching the originals and true divided lights are acceptable.

Wood trim, both exterior and interior, should be similarly retained and preserved.

### Paint Finishes

Original paint formulations and colors are character-defining elements that are often lost over time because the paint materials themselves are relatively short-lived. When repainting is necessary to preserve the integrity of the envelope, the colors chosen should be appropriate to the style and setting of the building. If the intent is to reproduce the original colors or those from a significant period in the building's history, they should be based on the results of a scientific paint analysis.

Traditional lead-based paints, which offer excellent longevity, durability and color stability, are no longer available in the United States. The highest quality latex-based paints available should be employed instead, after thorough surface preparation and priming. Permanent vinyl or ceramic liquid coating systems are damaging to wood siding and historically inappropriate.

## APPLICATION OF THE STANDARDS AT THE ASA PARLIN HOUSE

Preservation of the architectural integrity and character defining features (described in Part 1-C of this report) of the Asa Parlin House should be a high priority for the building's stewards. The guidelines that follow describe how work performed on the building should be approached in order to preserve and celebrate those historic elements.

### Preservation of the Setting and Landscape

The building's relationship with adjacent Town-owned structures and the residential neighborhood on Woodbury Lane communicates its traditional role in the life of the town and should be retained. Lawns and the granite retaining wall should be retained.

### Preservation of Massing and Form

If an addition is considered for the building it should follow *The Secretary of the Interior's Standards* for additions to historic buildings. The most appropriate location for an addition would be at the east elevation of the building.

### Preservation of Exterior Character-Defining Features

#### Masonry

The brick chimney and granite elements (foundation and steps) should be retained and repaired as needed. An appropriate mortar formula should be developed and documented for use in future repointing campaigns.

#### Roofing

The asphalt shingle roofing at the Asa Parlin House is not historically accurate and should be replaced with wood shingles.

#### Wood Windows, Doors and Trim

All wood materials should be retained and maintained. Original windows and doors should be restored and protected with historically appropriate storms. Although the shutters are not original, they are period appropriate and may be repaired and retained, and replaced where missing.



### Preservation of the Interior Plan & Character-Defining Features

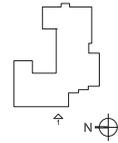
The original space configurations on the first floor should be retained to the extent possible. Existing framing elements and wood trim should be retained and restored. The building interior and its constituent materials should be carefully documented, both photographically and with a written narrative, prior to any interventions.



## EXISTING CONDITIONS & RECOMMENDATIONS

### BUILDING EXTERIOR

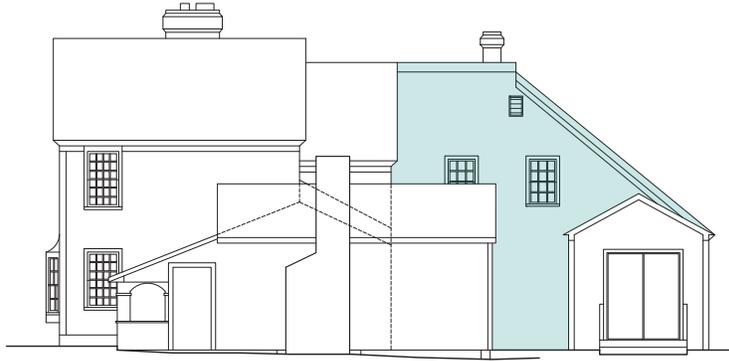
PLANS AND ELEVATIONS BASED ON 1988 DRAWINGS PREPARED BY  
TURK, TRACY AND LARRY. DRAWINGS HAVE NOT BEEN FIELD  
VERIFIED.



West elevation. Original building block is shaded on all elevations.



North elevation



East elevation



South elevation

## EXTERIOR

### Conditions

Structures North Consulting Engineers has determined that the Asa Parlin House is structurally sound, although selected areas of work have been recommended and are detailed in their report (included as an appendix to this document). These relate primarily to floor reinforcement necessary to support public assembly use. The building has suffered from decades of deferred maintenance and predictably, the conditions described in the 1999 Reuse Feasibility Study by Turk Tracey & Larry Associates have worsened. Wind and water infiltration are responsible for most of the damage visible on both the exterior and interior.

The wood clapboard siding and trim elements have areas of rot and there is widespread paint failure. Shutters on the facade are in poor condition with missing louvers. The windows exhibit deteriorated glazing and cracked panes; window operation was not tested. Vegetation overgrowth is contributing to moisture retention and damage to the clapboards, particularly at the base of the building.

The asphalt roof shingles are in fair but serviceable condition with cupping and areas of wear. The gutters and downspouts are in fair condition but filled with debris. There is mortar failure and damaged flashing at the chimney base. The granite steps at the entry have shifted out of alignment.

### Recommendations

The accepted reuse option includes structural stabilization and preservation of the building exterior.

- Make structural repairs as recommended by Structures North (summarized on page 25 of this report).
- Repair, prepare, prime and repaint wood clapboards and trim elements.



Damaged shutters and worn paint finishes at the facade.



Widespread paint failure at the east elevation.



Misaligned granite steps at the main entry. Worn paint finish at the clapboards, trim, door and sill.



Left: aged asphalt shingles, mortar failure at the chimney.  
Right: vines damaging wood clapboards and cornerpost.

- Repair and reglaze windows.
- Schedule roof for replacement when renovations are performed.
- Repair and clean gutters and downspouts.
- Repoint the chimney and replace flashing.
- Rebed and align the granite entry steps.
- Remove vegetation from the building.



First floor. Center divider containing closet and built-over fireplace.

## INTERIOR

### Conditions

The plaster walls and ceiling show water damage throughout. Additional impact was sustained when areas of wall and flooring were selectively removed as part of the framing investigation. The plank flooring is worn. The wood wainscot, trim and doors are in good condition. The bathroom fixtures and finishes are in poor condition.



Left: framing exposed during selective demolition. Center: peeling paper at wall and ceiling. Right: second floor.

### Recommendations

The accepted option for reuse calls for stabilization, exterior preservation and safe access to the building. Interior renovations will not be performed in this scenario.

- Remove debris and clean interior.
- Install lighting and safety features as described in the Building Code section of this report.



## STRUCTURAL SURVEY SUMMARY

Structures North Consulting Engineers assessed the Greek Revival portion of the Asa Parlin House on June 11, 2012, and August 8, 2012, noting conditions as they compared to the findings in the structural report produced by Ocmulgee Associates in October, 1998. The 2012 investigation benefitted from selective removals of interior finishes to expose key framing components. Overall the building is in similar condition.

Overall the structural condition of the framing is good but where damage was noted in 1998, the deterioration has continued. Deterioration was seen at the south wall, where moisture continues to damage the wall, floor and roof framing in that area. Moisture and beetle damage at the first floor framing, particularly at the beam and joist section below the original room, may also have worsened since 1998.

The rest of the building framing is in sound condition.

Work required immediately relates to the deteriorated sills and reframing sections missing due to the additions made over the years. It is possible to reinforce the first floor framing at this time and upgrade the strength to meet building code requirements for assembly use, leaving the space ready for future rehabilitation. The second floor framing can remain as is. The roof framing should also be strengthened since a quarter of it must be reconstructed regardless due to the removal of the additions and it makes practical sense to implement this work now.

Structures North was asked to review several future re-use scenarios. Implications should be noted now since any public re-use of the building will need to address them. In all scenarios the roof will require rebuilding at the existing addition. Since this is covered under the recommendations of this report the stabilizing of the historic building actually accomplishes necessary work ahead of future rehabilitation. The first floor framing will need reinforcing to meet the loads required for assembly use which are substantially higher than those required for a residence. Again, this is work that will be accomplished when the work in this report is complete. Public use of the second floor will also result in added reinforcement of framing. This work is deferred until it is established that the second floor will become public space.

The engineer was asked to comment further on implications of removal of the second floor to open the whole of the Greek Revival structure as a large open space. In this scenario the roof will require heavily blocked framing and shear-rated sheathing. The wall plates at the gable ends will need to be reinforced for the full length of the building with a cable or rod.





## HAZARDOUS MATERIALS REPORT SUMMARY

Fuss & O'Neill EnviroScience inspected for asbestos and lead-based paint at the Asa Parlin House (the entire building) on July 31, 2012.

Building materials containing asbestos at greater than 1.0% include the drywall skimcoat on walls and ceilings, exterior door caulking, black sink undercoat, basement transite board, brick pattern linoleum flooring, flue patching material and joint tape and compound. These materials must be abated by a licensed asbestos abatement contractor prior to building demolition or renovation.

Paint containing levels of lead great than 1.0% (considered toxic) was found on numerous building components including plaster walls and ceilings, interior and exterior window and door components, and exterior trim and support pieces associated with the roofing. Any future work involving surface preparation or removal of these painted surfaces must be performed in accordance with OSHA worker protection requirements and waste must be disposed of appropriately.



## MECHANICAL, ELECTRICAL AND PLUMBING

Jeffrey White of JRW Engineering surveyed the infrastructure at the Asa Parlin House on September 26, 2012, and prepared the following summary of conditions.

The existing oil fired boiler and gas fired water heater appear to have been drained and may be in good enough condition to re-commission. However, the existing oil tank has signs of corrosion. The existing gas service is disconnected and the meter has been removed. The main masonry chimney is full of debris up to the boiler vent connection. The chimney is not lined and is not safe to be used in its current state.

The existing 3/4" cold water service is currently off; the main service and meter appear to be in good condition but are disconnected from the distribution piping.

The existing 200A electrical service is active. The main panelboard is located in the basement and has signs of corrosion.

To give the building basic utility while minimizing cost, we recommend the following scope:

- The building should remain unheated. The abandoned oil tank is corroded and must be removed.
- New cold water piping should be installed to serve new wall hydrants at each exterior wall. The wall hydrants could either be drained every year or provided with heat trace and insulated. We suggest that heat trace may pose a fire hazard over time, and requiring the system to be drained will encourage a periodic inspection of the remainder of the house.
- Heat detectors should be installed throughout the building and should be monitored with a direct connection to the fire station.
- A new panelboard should be installed in at the first floor where the humidity is lower and should serve new basic lighting, a few convenience outlets and possibly heat trace.



## CONCEPTUAL DESIGN

The Asa Parlin House Study Committee, with input from the community, have explored a variety of options for reuse and rehabilitation of the property. **The site is seen by the Town of Acton as an amenity for the benefit of the community and its use as a green space is advocated regardless of the building reuse option that is ultimately adopted.**

Currently the Town needs additional shared public parking to support Town Hall, the Library and the playground. At a public meeting on June 13, 2012, when reuse of the house was first addressed in a community conversation, the discussion focused on the Asa Parlin site as part of Acton’s civic campus and as a potential source of additional parking. After a far-ranging discourse that covered moving the house on its site or to an adjacent site, it was agreed that the net gain of 12 parking spaces could not justify removal of the historic building.



Option relocating Asa Parlin House to another site and developing parking, resulting in net gain of 12 parking spaces.



Option with Asa Parlin House relocated on the site providing 8 new parking spaces.

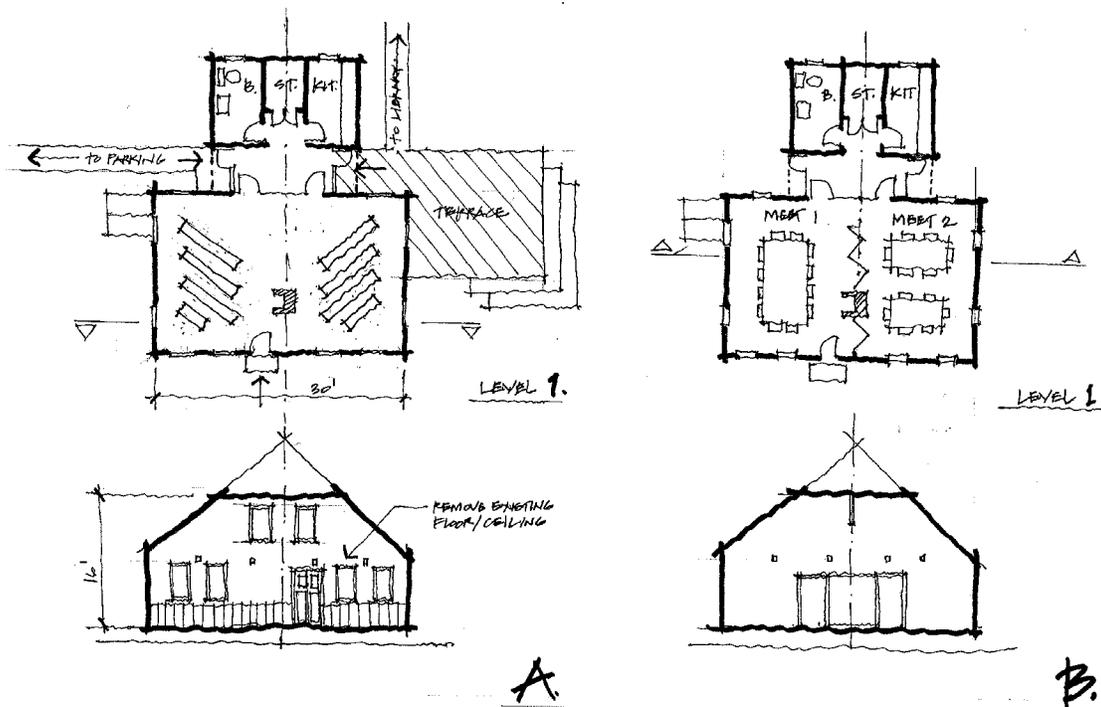


Option with Asa Parlin House in current location with 20th century additions removed and a small new addition for rest rooms. No parking provided on site.

At a meeting on September 5, 2012, three options for reuse of the building were presented to the task group. All the scenarios described below include demolition of the building's 20th century additions. The cost estimates include \$52,000 for the abatement and removal of hazardous materials.

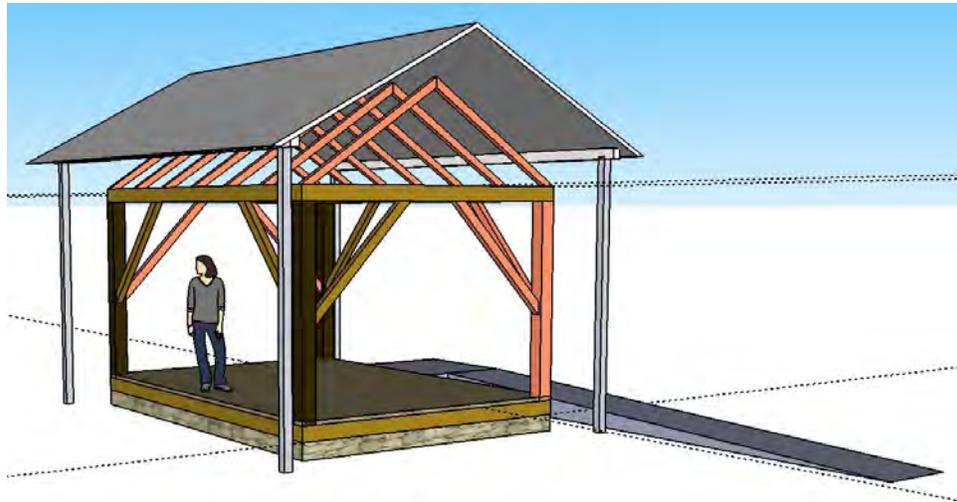
**Option 1:** Use for public meeting space. Retain the Greek Revival house and add a small addition for rest rooms and storage. Reinforce the floor to support a public assembly load of 100 lb per square foot. Besides providing meeting space, this scheme retains the historic house and its early framing and allows it to continue to serve as an "anchor" at the site, buffering the historic residential neighborhood from the large parking area of the civic campus. Estimated cost including demolition: \$400,000 for approximately 600 square feet.

**Option 2:** Use for records storage, such as that requested for the Historical Commission. Retain the Greek Revival house as a shell and provide minimal heat and electrical service but no rest rooms. Reinforce the floor to support a public assembly load of 100 lb per square foot. This scheme retains the historic house and its framing, allows it to continue to serve as a buffer, provides record storage and preserves the ability for future rehabilitation. Estimated cost including demolition: \$350,000 for approximately 400 square feet of storage.



Reuse scenarios that include a rear addition for rest rooms and a kitchen as provided in the RFQ issued by the Town of Acton on February 2, 2012.

**Option 3:** Use as artifact/exhibit/pavilion. Remove all cladding and later framing, leaving only the earliest timber frames. Enclose the frame in a roofed, open-sided pavilion. This scheme retains the early framing as an artifact and allows it to continue to serve as a buffer. Conversely, it removes the continuum represented by the Greek Revival house and has a negative impact on the Historic District. Estimated cost including demolition: \$150,000.



Option 3. Use as an artifact/exhibit/pavilion.

After considering the pros and cons of the three presented options, the group elected to move forward with a hybrid option:

**Accepted Option:** Retain the Greek Revival house as a shell and keep existing electrical service and basic lighting but provide no heating or plumbing. Do not reinforce the floor to support public assembly. Eliminate the present parking on the site and grade and plant after the demolition of the 20th century additions. This scheme preserves the historic house in the Historic District, allows it to serve as a buffer, and develops the grounds for passive recreation and events as part of the civic campus.

## REGULATORY ANALYSIS

### Building Code

Use type –U Utility and Miscellaneous Group. Use will of course change when fully rehabilitated. Use could be classified as an unheated shed for storing tables and chairs associated with use of adjacent open space.

Construction Classification: Type 5B. Wood frame, unprotected.

Although the use does not implicitly require code upgrades, the following improvements are proposed in the conceptual design scenarios for the Asa Parlin House:

- Structural repairs throughout and reinforcing of first floor framing and roof framing. Second floor framing will occur at a later date.
- Smoke detectors and direct line to fire department will be installed.
- One frost free hose bib will be installed.
- Interior lighting – protected porcelain fixtures with surface mounted metal conduit and switches for basement and first floor.
- One convenience receptacle per room on first floor and three in basement.
- One exterior GFI receptacles at exterior.
- New 200 amp panel board on first floor replacing existing 200 amp panel.
- Exterior carriage light porch lights at each exterior door on photo sensors.
- Fire detection system connected to fire department.

### Historical Commission

The Asa Parlin House is located in the Acton Center Historic District. Any work on the exterior of house, including removal of modern additions, will require a Certificate of Appropriateness from the Acton Historic Districts Commission.

### Zoning

- Neighborhood Zoned R2: Municipal uses within R2 are allowed by right.





## OUTLINE DRAWINGS & SPECIFICATIONS

The outline drawings and specifications were prepared to provide a detailed scope of work from which Shawmut Design and Construction could develop budgeting cost figures for rehabilitating the Asa Parlin House. These documents are constructed from the Accepted Option conceptual design and informed by the findings of the existing conditions survey completed by MTS and our consultants. The Accepted Option includes retention of the Greek Revival house as a shell and keeps existing electrical service and basic lighting, but provides no heating or plumbing. It eliminates the present parking on the site and calls for grading and planting after the demolition of the 20th century additions.

The work activities are developed in the outline specifications, which are broken into categories based on the Construction Specifications Institute, also known as CSI Format. This document adds to the information shown on the drawing by providing more detailed materials and methodology for completing the work shown.



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## OUTLINE SPECIFICATIONS

- 00 00 00        PROCUREMENT AND CONTRACTING REQUIREMENTS
  
- 00 20 00        Instructions for Procurement
  - Publically bid
  - Bid Bond
  - Single Prime Contract
  - Filed Sub-Bids Required
  - Prevailing wage
  - Owner's Project Manager Required
  - Payment Bond
  - Performance Bond
  
- 00 31 26        Hazardous Material Information
  - Tested Positive for Asbestos Bearing Materials
  - Tested Positive for Lead Painted Surfaces
  
- 01 00 00        GENERAL REQUIREMENTS
  
- 01 10 00        Summary
  - Removal of non-historic additions
  - Stabilization and repairs as required
  - Restoration of missing wall and roof elements
  - Preservation of historic exterior features
  
- 01 40 00        Quality Requirements
  - Build to requirements of 8th edition Massachusetts Building Code
  - Restoration, Renovation and Repainting lead paint requirements will apply
  
- 01 50 00        Temporary Facilities and Controls
  - Temporary electricity
  - Field Office in building
  - Temporary Sanitary Facilities
  - Temporary erosion and sediment control
  - Temporary Fencing
  - Temporary Town Project Sign
  
- 01 74 00        Cleaning and Waste Management
  - Construction waste to be sorted for recycling
  - Final cleaning to leave building move-in ready



## DIVISION 1 GENERAL REQUIREMENTS

### Section 01010 Summary of Work

- Demolition of non-historic additions and removal of all debris from the site. (1100 s.f. ground floor and 400 s.f. second floor).
- Preservation, repairs and restoration of the building exterior.
- Limited distribution of utilities within the historic house.
- Structural reinforcement of first floor system and roof system. No work this phase at the second floor.
- Reframe missing elements at exterior walls of historic house.
- New paved exterior sloped walkway to salvaged stone entry stoop.
- Fixed contract price to be obtained through public bidding (municipal project).

## DIVISION 2 SITE CONSTRUCTION

### Section 02070 Selective Demolition

Selective demolition work includes but is not limited to the following:

- All work on demolition drawings.
- Removal of asphalt paving at walkway and parking area (1500 s.f.).
- Existing boiler and 250 gal oil tank and water heater. (Oil tank already drained.)
- Existing electrical service panel.
- Hazardous Material removal – ALLOW \$52,000.

### Section 02100 Site Preparation

See Section 02070 Selective Demolition

### Section 02200 Site Utilities and Earthwork

- Trenching for drain pipe and drip line piping and drywells 8" perforated PVC pipes - 65' total run, drywells - (2) 4' diameter w/ 18" gravel surround.
- Trenching for electrical conduit (45') below frost.
- Grading.
- 24" wide gravel drip line with buried drainpipe run to drywells along both north and south eave lines (60' total length).

### Section 02500 Paving

- Concrete grass pavers over (1500 s.f.) adjacent to house.

### Section 02900 Landscaping

- 6" loam over disturbed area (6,000 s.f.).
- Hydro seed over site (12,000 s.f.).

## DIVISION 3 CONCRETE

### Section 033000 Cast-in-place Concrete

- Poured concrete footings for posts in basement (3).

## DIVISION 4 MASONRY

## Section 040100 Maintenance of Masonry

- Rebuild brick basement wall section (10 sf).
- Repoint chimney (20 s.f.).
- Repoint rubble stone in selected basement locations (100 s.f.).
- Repoint dressed granite foundation facing (140 s.f.).

## DIVISION 5 METALS

## Section 051200 Structural Steel Framing

- Columns, (3) @ basement.

## DIVISION 6 WOOD AND PLASTICS

## Section 06100 Rough Carpentry

- Structural reinforcement of first floor and roof. LVLs, PSLs and 2x framing.
- New exterior walls at first floor. 2x studs with timber posts and wind bracing in corners. Borate treat all framing prior to installation.
- Miscellaneous blocking as required.
- Stair stringers at basement stair.
- Plywood treads and risers at new steps and landing on first floor.

## Section 06160 Sheathing

- Replacement board sheathing on roof and at walls – (400 s.f.) 1x 12 barge board, smooth side out.

## Section 06200 Finish Carpentry

- Exterior corner boards, window trim, rake boards and cornices at newly reconstructed areas to match existing.
- Purchase (12 pairs of exterior shutters – painted and mounted with hinges and hold backs).
- Interior 1.5” diameter hand rails at steps. (20 l.f.) Brass brackets.

## DIVISION 7 THERMAL AND MOISTURE PROTECTION

## Section 073129 Wood shingles.

- Red cedar 18” shingles on roof over cedar breather and 30# felt. (800 s.f.)
- 4” half round aluminum gutters with hangers at 18” o.c. (60 l.f.)

## Section 074600 Siding

- Infill siding and coverage for reconstructed area. 3-1/3 inch exposure pre-primed red cedar beveled siding installed with a scarf joint (250 s.f.).

■

## DIVISION 8 DOORS AND WINDOWS

### Section 08200 Custom Wood Doors

- Install new 4 panel wood solid core 1 3/4" thick exterior wood door at new south entry.
- Restore existing historic wood door on west elevation. Add new weather stripping.

### Section 08500 Wood Windows

- Restore existing historic wood windows (10). Repair casing and joints as required.
- Add two new wood windows 1 on east elevation and one on south elevation. Match southern-most of windows on west elevation.

### Section 08700 Finish Hardware

- New mortise latch set with deadbolt, ball bearing hinges, complete weatherstripping around perimeter at new south door.
- Re-key west door to match keying on new south door.

## DIVISION 9 FINISHES

### Section 09900 Painting

- All new wood painting exterior requires primer plus two coats.
- Exterior existing wood two finish coats.

## DIVISION 10 SPECIALTIES

Not used.

## DIVISION 11 EQUIPMENT

Not used.

## DIVISION 12 FURNISHINGS

Not used.

## DIVISION 13 SPECIAL CONSTRUCTION

Not used.

## DIVISION 14 CONVEYING SYSTEMS

Not used.

## DIVISION 15 MECHANICAL

### Section 15400 Plumbing

- New distribution from service entry to exterior frost free hose bibs. Provide drain down valve near water service entry. Add shut off and capped second line for future distribution. Reuse existing water meter.

## DIVISION 16 ELECTRICAL

## Section 16000 Electrical

- 6" Underground electrical conduit (empty) below frost from foundation to parking area with hand hole for future access and wiring installation - (45' length)
- Install new 200 amp panel at first floor adjacent to service entrance.
- Install new exterior GFI outlets with waterproof service housings. (1)
- Install new interior convenience outlet.
- Power distribution throughout to be in surface mounted metal conduit.
- Fire Alarm System: smoke detectors (1 in basement, 2 on first floor, 1 on second floor at head of stairs). Include audible alarm and connection to Acton Fire Alarm Department exterior alarm box (35 l.f.).
- Lighting: protected cfl lamps in porcelain sockets (5 total). Switch activated (2 sets of 3-pole). One single pole.
- Exterior "historic" porch lights on photo cells (3).



## SUMMARY OF PROBABLE COST

Cost estimating services were provided by Shawmut Design & Construction based upon the outline plans and specifications provided by MTS. Bidding and construction would be Chapter 149 Public Construction with Prevailing Rates.

For purposes of planning and financing, the project costs are divided into three categories:

### Hazardous materials abatement

Testing has indicated that there are asbestos materials in various 20th century building materials which require abatement prior to any construction intervention. The estimated construction cost is \$52,000. For budgeting purposes soft costs should be included for environmental engineering fees bringing the total project cost to **\$60,000**.

### Building stabilization and preservation

The recommended option retains the core of the early house as an artifact of Acton's history, keeping the future use of the building as an open question. It recognizes that the town is about to commence a comprehensive study of its space needs; however interesting the prospects of a small meeting space or offices, the investment required to do so needs to be quantified and qualified. So in the interim, this recommendation will remove the 20th century additions and systems; stabilize structural members; replace the roof; restore the siding, trim, windows, shutters and doors; paint the exterior; and provide minimal lighting and a fire detection system but no other modern improvements or code mandates. The estimated construction cost is \$248,000. For budgeting purposes, soft costs should be included for architectural and engineering fees bringing the total project cost to **\$285,000**.

### Site reclamation and landscape

In keeping with the minimalist treatment of the building, the site will be similarly handled with a light touch. The existing asphalt paving will be removed and the site regraded, loamed and seeded for lawn at the areas of the demolished 20th century additions. The estimated construction cost is \$61,500. For budgeting purposes soft costs should be included bringing the total project cost to **\$70,700**. Note that it is very possible that the Town could undertake this work with its own forces in the Department of Public Works.



<u>Item</u>	<u>Construction Cost</u>	<u>Soft Costs</u>	<u>Total</u>
Hazardous materials abatement	\$52,000	\$8,000	\$60,000
Building stabilization & preservation	\$248,000	\$37,000	\$285,000
Site reclamation & landscape	\$61,500	\$9,200	\$70,700

Included here are the budget summary (before soft costs) and the cost estimate broken out using the same CSI format found in the Outline Specifications.



Asa Parlin House  
Acton, MA

Repair and Renovations

Shawmut Design & Construction

Drawings Date: 18-Oct-12

Estimate Date: 25-Oct-12

Project Area/SF 1,240

Schematic Estimate

Project No. TBD

Summary Sheet

October 22, 2012

TRADE	TOTAL COST	\$/SF
DEMOLITION	\$82,100	\$66.21 SF
CONCRETE	\$750	\$0.60 SF
MASONRY	\$6,700	\$5.40 SF
STRUCT STEEL/MISC METALS	\$600	\$0.48 SF
ROUGH CARPENTRY	\$39,900	\$32.18 SF
FINISH CARPENTRY/MILLWORK	\$15,000	\$12.10 SF
THERMAL & MOISTURE PROTECTION	\$13,950	\$11.25 SF
DOORS, FRAMES, HARDWARE	\$4,450	\$3.59 SF
GLASS, WINDOWS, ENTRANCES	\$12,000	\$9.68 SF
DRYWALL	\$0	\$0.00 SF
CERAMIC TILE	\$0	\$0.00 SF
ACOUSTICAL CEILINGS	\$0	\$0.00 SF
RESILIENT AND CARPET FLOORING	\$0	\$0.00 SF
PAINTING	\$10,000	\$8.06 SF
SPECIALTIES	\$0	\$0.00 SF
EQUIPMENT	\$0	\$0.00 SF
FURNISHINGS	\$0	\$0.00 SF
ELEVATOR	\$0	\$0.00 SF
FIRE PROTECTION	\$0	\$0.00 SF
PLUMBING	\$1,950	\$1.57 SF
HVAC	\$0	\$0.00 SF
ELECTRICAL	\$16,440	\$13.26 SF
<b>SUBTOTAL</b>	<b>\$203,840</b>	<b>\$164.39 SF</b>
GENERAL CONDITIONS & PROJECT REQUIREMENTS	\$50,000	\$40.32 SF
PERMITS @ \$20/1000	\$4,077	\$3.29 SF
GENERAL LIABILITY @ \$6/1000	\$1,548	\$1.25 SF
<b>SUB TOTAL</b>	<b>\$259,464</b>	<b>\$209.25 SF</b>
CONSTRUCTION CONTIGENCY @ 10%	\$25,946	\$20.92 SF
FEE @ 5%	\$14,271	\$11.51 SF
<b>CONSTRUCTION TOTAL</b>	<b>\$299,681</b>	<b>\$241.68 SF</b>
DEDUCT ALTERNATE OPTION:		
ASPHALT SHINGLE ROOF IN LIEU OF RED CEDAR		
<b>DEDUCT ALTERNATE OPTION:</b>	<b>-\$4,000</b>	<b>-\$3.23 SF</b>



Asa Parlin House  
Acton, MA

Shawmut Design & Construction  
Drawings Date: 18-Oct-12  
Estimate Date: 25-Oct-12

Project No: TBD

CSI COST CODE	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
<i>DEMOLITION</i>				
Selective Demolition				
Safety and protection -	1	ls	2500.00	\$ 2,500
Demolish non-historic additions and remove debris from site	1,500	sf	10.00	\$ 15,000
Shore existing structure to remain	1	ls	5000.00	\$ 5,000
Reove existing boiler, 250 gal oil tank & water heater	1	ls	2000.00	\$ 2,000
Remove existing electrical service panel	1	ea	1500.00	\$ 1,500
Salvage wood Town Hall Sign	1	ls	250.00	\$ 250
Salvage ceiling beams for reuse	3	ea	500.00	\$ 1,500
Salvage window for reuse	1	ea	350.00	\$ 350
Demo and remove existing interior partitions, doors, MEP	1	ls	2000.00	\$ 2,000
Hazardous Material removal allowance	1	ALLOW	52000.00	\$ 52,000
<b>DEMOLITION TOTAL</b>				<b>\$ 82,100</b>
<i>CONCRETE</i>				
Concrete				
F&I concrete footings for posts in basement	3	ea	250.00	\$ 750
<b>CONCRETE TOTAL</b>				<b>\$ 750</b>
<i>MASONRY</i>				
Masonry				
Rebuild brick basement wall section	10	sf	100.00	\$ 1,000
Repoint chimney	20	sf	35.00	\$ 700
Repoint rubble stone in selected locations	100	sf	35.00	\$ 3,500
Repoint dressed granite foundation facng	1	cd	1500.00	\$ 1,500
<b>MASONRY TOTAL</b>				<b>\$ 6,700</b>
<i>STRUCTURAL STEEL &amp; MISCELLANEOUS METALS</i>				
Steel				
F&I structural steel columns	3	ea	200.00	\$ 600
<b>STRUCTURAL STEEL &amp; MISC. METALS TOTAL</b>				<b>\$ 600</b>
<i>ROUGH CARPENTRY</i>				
Carpentry				
Structural reinforcement of first floor	620	sf	20.00	\$ 12,400
Structural reinforcement of roof	800	sf	15.00	\$ 12,000
New exterior walls at first floor. Borate treatment	200	sf	30.00	\$ 6,000
Misc. blocking as required	1	ls	2500.00	\$ 2,500
Stair stringers at basement stair	1	ls	1500.00	\$ 1,500
Plywood treads and risers at new steps and landing on first floor	1	ls	1500.00	\$ 1,500
Repalcement board sheathing on roof and walls 1x12	400	sf	10.00	\$ 4,000
<b>ROUGH CARPENTRY TOTAL</b>				<b>\$ 39,900</b>
<i>FINISH CARPENTRY/MILLWORK</i>				
Finish Carpentry				
Exterior corner boards, window trim, rake boards and cornices	1	ls	5000.00	\$ 5,000
F&I 12 pair neww shutters	12	pr	750.00	\$ 9,000
Interior 1.5" diameter hand rails at steps	20	lf	50.00	\$ 1,000
<b>FINISH CARPENTRY &amp; MILLWORK TOTAL</b>				<b>\$ 15,000</b>
<i>THERMAL &amp; MOISTURE PROTECTION</i>				

**Project No: TBD**

CSI COST CODE	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
<b>Thermal &amp; Moisture Protection</b>				
Red cedar 18" shingles on roof over cedar breather and 30# felt	8	sq	1000.00	\$ 8,000
3/4" x 6" Cedar ridge board w/ lead flashing	20	lf	50.00	\$ 1,000
Half round aluminum gutters and downspouts	40	lf	30.00	\$ 1,200
F&I red cedar beveled siding with scarf joint	2.5	sq	1500.00	\$ 3,750
<b>THERMAL &amp; MOISTURE PROTECTION TOTAL</b>				<b>\$ 13,950</b>
<b>DOORS FRAMES &amp; HARDWARE</b>				
Doors and Frames				
F&I new 4 panel doors 1 3/4"	1	ea	1500.00	\$ 1,500
Restore historic door on west elevation. New weatherstripping	1	ea	1750.00	\$ 1,750
New mortice latch set , hinges and weatherstripping	1	ea	1000.00	\$ 1,000
Rekey west door to match south door	1	ea	200.00	\$ 200
<b>DOORS FRAME &amp; HARDWARE TOTAL</b>				<b>\$ 4,450</b>
<b>GLASS AND GLAZING</b>				
Windows				
Restore existing historic windows and casings	10	ea	1000.00	\$ 10,000
F&I 2 new windows	2	ea	1000.00	\$ 2,000
<b>GLAZING &amp; GLAZING TOTAL</b>				<b>\$ 12,000</b>
<b>DRYWALL</b>				
Drywall- Not in Contract				
<b>DRYWALL TOTAL</b>				<b>\$ -</b>
<b>CERAMIC TILE</b>				
Ceramic Tile- Not in Contract				
<b>CERAMIC TILE TOTAL</b>				<b>\$ -</b>
<b>ACOUSTICAL CEILINGS</b>				
Acoustical Ceilings- Not in Contract				
<b>ACOUSTICAL CEILINGS TOTAL</b>				<b>\$ -</b>
<b>RESILIENT &amp; CARPET FLOORING</b>				
Resilient and Carpet Flooring- Not in Contract				
<b>RESILIENT/CARPET FLOORING TOTAL</b>				<b>\$ -</b>
<b>PAINTING</b>				
Painting				
Existing building painting	1	ls	10000.00	\$ 10,000
<b>PAINTING TOTAL</b>				<b>\$ 10,000</b>
<b>SPECIALTIES</b>				
Specialties- Not in Contract				
<b>SPECIALTIES TOTAL</b>				<b>\$ -</b>
<b>EQUIPMENT</b>				
Equipment- Not in Contract				
<b>EQUIPMENT TOTAL</b>				<b>\$ -</b>
<b>FURNISHINGS</b>				
Furnishings- Not in Contract				
<b>FURNISHINGS TOTAL</b>				<b>\$ -</b>
<b>ELEVATORS</b>				
Elevators- Not in Contract				
<b>ELEVATOR TOTAL</b>				<b>\$ -</b>

**Project No: TBD**

CSI COST CODE	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
<i>FIRE PROTECTION</i>				
Sprinkler - Not in Contract				
<b>FIRE PROTECTION TOTAL</b>				<b>\$ -</b>
<i>PLUMBING</i>				
<i>Plumbing</i>				
New distribution from service entry to new hose bib.	1	ea	1250.00	\$ 1,250
Shut off capped second line for future distribution	1	ls	200.00	\$ 200
Reuse existing water meter	1	ls	500.00	\$ 500
<b>PLUMBING TOTAL</b>				<b>\$ 1,950</b>
<i>HVAC</i>				
HVAC- Not in Contract				
<b>HVAC TOTAL</b>				<b>\$ -</b>
<i>ELECTRICAL</i>				
<b>General</b>				
Temporary Lights & Power	1	ls	600.00	\$ 600
Selective Demolition - Cut, Cap & Make Safe	2	md	600.00	\$ 1,200
Permit Fee	1	ls	200.00	\$ 200
<b>Distribution</b>				
200Amp Main Circuit Breaker Loadcenter	1	ea	1,800	\$ 1,800
200 Amp Meter	1	ls	250.00	\$ 250
<b>Life Safety</b>				
Emergency lighting	1	ea	450.00	\$ 450
<b>Lighting</b>				
Lighting Branch Circuit wiring.	1,240	sf	1.25	\$ 1,550
Protected cfl lamps in porcelain sockets with switching	5	ea	200	\$ 1,000
Exterior Historic Porch Lights on photo cells	3	ea	750	\$ 2,250
F&I two GFI receptacles	2	ea	220	\$ 440
<b>Fire Alarm</b>				
Fire Alarm Equipment	1,200	sf	3.50	\$ 4,200
Connection to Acton Fire Alarm Department	1	ls	2500.00	\$ 2,500
<b>ELECTRICAL TOTAL</b>				<b>\$ 16,440</b>
<i>GENERAL CONDITIONS &amp; PROJECT REQUIREMENTS</i>				
Project requirement (supervision, labor and safety)	10	weeks	5000.00	\$ 50,000
<b>PROJECT REQUIREMENTS TOTAL</b>				<b>\$ 50,000</b>



**Asa Parlin House**  
**Acton, MA**  
  
**Repair and Renovations**

**Shawmut Design & Construction**  
**Drawings Date: 18-Oct-12**  
**Estimate Date: 25-Oct-12**

**Project Area/SF 1,240**  
**Schematic Estimate**

**Project No. TBD**

**Summary Sheet**

**October 22, 2012**

TRADE	TOTAL COST	\$/SF
SITEWORK	\$33,900	\$27.34 SF
LANDSCAPING	\$18,000	\$14.52 SF
<b>SUBTOTAL</b>	<b>\$51,900</b>	<b>\$41.85 SF</b>
PERMITS @ \$20/1000	\$1,038	\$0.84 SF
GENERAL LIABILITY @ \$6/1000	\$317.63	\$0.26 SF
<b>SUB TOTAL</b>	<b>\$53,256</b>	<b>\$42.95 SF</b>
CONSTRUCTION CONTIGENCY @ 10%	\$5,325.56	\$4.29 SF
FEE @ 5%	\$2,929.06	\$2.36 SF
<b>CONSTRUCTION TOTAL</b>	<b>\$61,510</b>	<b>\$49.61 SF</b>



**Asa Parlin House**  
**Acton, MA**

**Shawmut Design & Construction**  
**Drawings Date: 18-Oct-12**  
**Estimate Date: 25-Oct-12**

**Project No: TBD**

CSI COST CODE	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
<b>SITEWORK</b>				
Earthwork				
Erosion control	1	ls	1000.00	\$ 1,000
E/B for drain line and drip line piping 8" PVC	65	lf	25.00	\$ 1,625
(2) 4' diameter drywells	2	ea	1000.00	\$ 2,000
E/B for electrical conduit below frost line	45	lf	25.00	\$ 1,125
Grading	1	ls	2000.00	\$ 2,000
24" wide gravel drip	60	lf	20.00	\$ 1,200
Concrete grass pavers adjacent to house	1,500	sf	10.00	\$ 15,000
Reset existing stone stoop on new gravel bed.	1	ls	1500.00	\$ 1,500
Temp fencing	400	lf	8.00	\$ 3,200
Remove asphalt paving at walkway and parking area	1,500	sf	2.00	\$ 3,000
<b>Electrical Distribution</b>				
6" underground conduit (empty)	45	lf	50.00	\$ 2,250
<b>SITEWORK TOTAL</b>				<b>\$ 33,900</b>
<b>LANDSCAPING</b>				
Landscaping				
6" loam over disturbed area	6,000	sf	2.00	\$ 12,000
Turf seed over site	12,000	sf	0.50	\$ 6,000
<b>LANDSCAPE TOTAL</b>				<b>\$ 18,000</b>



## CYCLICAL MAINTENANCE PLAN

### Introduction

This section of the conditions assessment and schematic design report provides an anticipated cost for work that would be considered typical responsible exterior maintenance at the Asa Parlin House. These activities, most consisting of inspection and minor repairs performed at regular intervals, will slow deterioration and extend the life of the already durable materials. The goal here is to recommend a limited annual investment that will help limit the scope and cost of future repairs.

### Maintenance Plan

The following maintenance plan follows an itemization of exterior features and building systems.

The first columns on the chart describe the feature, its location, and its maintenance cycle. The recommended tasks and procedures will not prevent wear and tear on the building but will increase the lifespan of materials and will allow the cost to be amortized over a longer period of time.

Perhaps the single most important maintenance activity is an annual inspection. The building exterior should be carefully inspected from the ground, preferably by two people (and the same people each year), who document any signs of deterioration on any portion of the envelope. When changes are noted, consultation with an architect or engineer may be warranted. Digital photographs should be taken to accompany the written record and stored for comparative referencing the following year.

Listed below are the column headings on the accompanying chart with a brief explanation of their meanings.

### Material

The building system is the feature or characteristic that requires a maintenance and/or capital budgeting line item. For example, exterior clapboard siding comprises a building system that requires periodic painting.

### Location

A brief narrative description of the element location is provided.

### Scheduled Frequency, Cost, Annual Cost

The fourth, fifth, and sixth columns describe maintenance activities with intervals and costs for the locations identified. Maintenance activities are largely housekeeping tasks and straightforward proactive work. The frequency is in years and the maintenance work is considered routine upkeep which might require special attention from maintenance personnel or an outside contractor. The intervals are suggested as the maximum span of time between maintenance activities. For

■

example, the wood trim should be painted every six or seven years to retard deterioration of the wood. Note that fractional yearly frequency means more than once a year. The cost is the estimated cost for the work based on historical information gleaned from industry standards. The annual cost is calculated for convenience to provide a total annual maintenance stipend for the building. This is idealized since some activities occur more than once a year and others only once in several years.

#### Comments

More detail on the building system and the maintenance work is provided. General observations about access to work or special requirements are made here.

#### Annual Maintenance Total

The chart has a bottom line showing the cumulative maintenance total per year which is approximately **\$1,672**. This total assumes that all exterior preservation work has been completed and applies only to the building exterior. This figure should be applied on top of annual expenses for maintenance staff, housekeeping, consumable replacements (light bulbs, etc.), snow removal, landscaping and interior maintenance items. Note that this total is averaged. Depending on the frequency of individual maintenance activities, the yearly figure may be greater or less. By budgeting the total amount annually and setting aside as a reserve funds not expended in a particular year, there should be sufficient funds for years when the scheduled maintenance expenditures are higher. This total does not include reserves for capital budget items which have been itemized under the repairs section of this report.

#### Capital Budgeting Total

Based on the projected endurance of materials and yearly maintenance, an estimated replacement year and cost for replacement is provided (not including inflation). Based on these numbers, an annual sinking fund number has been established of **\$2,572** to address future capital projects.

Cyclical Maintenance and Preservation										
ASA PARLIN HOUSE										
Material	Location	Scheduled			Comments	Capital Budgeting			Comments	
		Frequency in years	Cost	Annual Cost		Projected endurance in years	Replacement year	Sinking fund per annum		Probable Cost
<b>Roofing</b>										
Wood shingle		1.0	\$350	\$350	Inspect, replace damaged shingles	25	2037	\$596	\$14,900	Assumes replacement with CPC
<b>Masonry</b>										
Brick Chimney	Gable	10.0	\$280	\$28	Inspect, spot pointing, assumes repaired with CPC and maintained - includes access	40	2052	\$58	\$2,310	Deep repointing, assumes well maintained in meantime, includes access
<b>Doors</b>										
Wood entry doors	South, west	7.5	\$210	\$28	Lubricate hardware, touch up paint - assumes repaired during CPC	15	2027	\$163	\$2,450	Repaint, repair wood, adjust hardware
<b>Windows</b>										
Historic double hung and 1 replacement	11 units north, east, west and south elevations	7.0	\$96	\$14	Inspect, touch up paint, assumes spot glazing and painting done in CPC	35	2047	\$248	\$8,663	Clean, repair, reglaze, repaint
<b>Wood trim</b>										
Soffits, cornerboards, water table	All elevations	7.0	\$164	\$23	Spot painting, minor wood repair.	35	2047	\$41	\$1,419	Repaint entirely, wood repair, damaged wood replacement

Material	Location	Scheduled		Comments	Capital Budgeting				Comments		
		Frequency in years	Cost		Annual Cost	Projected endurance in years	Replacement year	Sinking fund per annum		Probable Cost	
<b>Wood siding</b>											
	South Elevation	7.0	\$438	\$63	Painting, minor wood repair. Consider rolling schedule for painting and repair of one elevation every two years.	35	2047	\$75	\$2,625	Replace siding, consider rolling schedule for replacement and painting.	
	East Elevation	7.0	\$1,400	\$200	Painting, minor wood repair. Consider rolling schedule for painting and repair of one elevation every two years.	35	2049	\$240	\$8,400	Replace siding, consider rolling schedule for replacement and painting.	
	West Elevation	7.0	\$1,313	\$188	Painting, minor wood repair. Consider rolling schedule for painting and repair of one elevation every two years.	35	2051	\$225	\$7,875	Replace siding, consider rolling schedule for replacement and painting.	
	North Elevation and dormers	7.0	\$494	\$71	Painting, minor wood repair. Consider rolling schedule for painting and repair of one elevation every two years.	35	2051	\$85	\$2,966	Replace siding, consider rolling schedule for replacement and painting.	
<b>Site work</b>											
	In activity area	1.0	\$263	\$263	Mowing, seeding, dirt vacuum	30	2042	\$175	\$5,250	Replace, renew soils	
<b>INTERIOR SYSTEMS</b>											
<b>Electrical</b>											
	Building wide	1.0	\$26	\$26	Test breakers, GFI outlets, replace lights interior/exterior, etc.	25	2037	\$210	\$5,250	Assumes full system replacement - switches and wiring.	
	Fire detection	0.5	\$13	\$26	Check lights, alarms and detectors	30	2042	\$18	\$540	Replace components	
<b>Plumbing</b>											
	Piping	10.0	\$219	\$22	Inspect fittings and resolder/repair	30	2042	\$88	\$2,625	Replace plumbing distribution	
	Water meter	10.0	\$263	\$26	Inspect	30	2042	\$18	\$525	Replace water meter	

**APPENDIX:****APPENDIX**

- A) Structural Survey & Recommendations (Structures North)
- B) Historic Framing Report (Finch & Rose)
- C) Hazardous Materials Report (Fuss & O’Neill EnviroScience)
- D) Public Meeting Presentations
  - June 13, 2012
  - October 29, 2012
- E) Study Committee Meeting
  - September 5, 2012
- F) Massachusetts Historical Commission Inventory Form
- G) Reuse Feasibility Study (Turk, Tracey & Larry Architects, 1999)
- H) Excerpts from 2010 CPA Application



A) STRUCTURAL SURVEY & RECOMMENDATIONS  
STRUCTURES NORTH CONSULTING ENGINEERS



DRAFT 8 August 2012

Menders, Torrey & Spencer, Inc.  
123 North Washington Street  
Boston, Massachusetts 02114

Attention: Patrick Guthrie

Reference: Asa Parlen Structural Conditions Report

Dear Patrick:

We have completed a visual survey of the Greek Revival portion of the Asa Parlen House at 17 Woodbury Lane in Acton, MA. For the purposes of this report Woodbury Lane runs north-south with the main entrance being located on the west elevation. A Reuse Feasibility Study was completed on January 7, 1999, our report refers to the Structural Conditions Report within the study completed by Ocmulgee Associates and dated October 26, 1998.

### **General Description**

The Asa Parlen house is a timber framed structure with wood framed additions. The focus of the survey was on the Greek Revival section of the house which is the oldest portion of the building. It is mostly post and beam construction with some “stick framing” mixed in from the multiple additions on the original building. Above the original room there is double framing for the second floor with the original beam and joist currently supporting the ceiling and the newer beam and joists supporting the second floor. The newer framing is throughout the Greek Revival section of the building. The roof framing is comprised of common rafters with ties at the current second floor ceiling.

Overall the building is in similar condition as described in the report by Ocmulgee Associates. The water damage at the south wall has worsened causing extensive damage to the wall, floor and roof framing in the area. The first floor framing, particularly the beam and joist section below the original room, is deteriorated from moisture and beetle damage. It is difficult to determine if this area has deteriorated since the previous report or it is in similar condition. The leak at the south wall should be fixed as soon as possible to prevent further damage. The rest of the surveyed building is in sound condition and will only need repairs when the building is opened for occupation. We recommend that if the building is to see more regular activity the first floor framing beams should be shored with additional columns at a minimum.

## **Structural Analysis and Load Assessment**

There are three options for reuse of the building. In both instances the south wall and roof will need to be rebuilt at the existing addition and where the water damage is located as well as at the east addition. The new wall framing can be completed in a post and beam fashion to match the existing or a new stud wall can be installed. The choice of wall framing will depend on how the space is to be used. A post at the northwest corner should be installed under both alternates. The new roof framing infill should consist of new rafters for the full length of the roof of a size and spacing to match the reinforcing of the rest of the roof.

### **Floor Plan Option 1:**

The first floor plan alternative is to use the first floor as an assembly space and the second floor as office space. Both the first and second floor framing will need to be reinforced.

The existing first floor framing is inadequate for the 100psf live loads required in an assembly space. To keep the historic floor framing in place we recommend that new joists are installed at as sister and between the existing joists. Depending on the joist length nominal 2x6s, 1-3/4x5-1/2 LVLs or 1-3/4x7 LVLs will be required. The beams are in poor condition and should be supported from below with a 5-1/4x11-1/4PSL. The new beam will extend past the edges of the existing beam to allow for bearing of the new floor joists. This should be done at all of the first floor beams and all of the existing post should be replaced with new steel columns and footings. The sill is in poor condition and will need to be replaced or dutchman repaired for approximately 75% of the building. Please note that the sill is hidden at the northwest corner and there for the full extent of repairs cannot be determined.

The second floor framing is comprised of 3x4 joists at 31" on center with 6x6 beams running east and west for the width of the building. All framing members need to be reinforced to carry the 50psf office live load. New 2x8 joists at 12" on center should be installed should be installed next to the existing framing. The beams will need to be reinforced with LVL beams on each side. The size of the sisters will depend upon the location of the walls below. If the space at the first floor is to be fully open then steel sisters will be required.

The roof framing does not meet the current building code and needs to be reinforced. New (2)2x6 rafters should be installed between the existing rafters with 2x4 ties to match the existing geometry.

### **Floor Plan Option 2:**

The second floor plan alternative is to use the first floor as an assembly space and remove the second floor framing to create a two story space.

The reinforcement of the first floor framing is the same as described above in Floor Plan Option 1.

As in Floor Plan Option 1 the roof framing needs to be reinforced with new rafters and ties between the existing. With the removal of the second floor framing the rafters lose the tying action at the wall plate. Because of the building plan the horizontal forces can be carried through shear-rated sheathing. The sheathing will stiffen the rafters so they keep their current geometry though to accomplish this the roof framing will need to be heavily blocked and the new sheathing heavily nailed to carry the loads. The wall plates at the gable end walls will need to be reinforced with a cable or rod for the full length, this will prevent the wall plate strength to be reduced from the splice connections along the beam. At the corner posts, it should be confirmed that the sill and foundation are in sound condition to carry the additional loads.

Floor Plan Option 3:

The final floor plan alternative is to remove all but the original timber structure, re-roof it to match the original orientation, see the architectural report for additional information.

The first floor framing will still need to be reinforced as described above. The existing second floor framing will remain exposed but will not be carrying loads and only needs to be repaired as required from deterioration. The new roof should be at 3x5s at 30" on center to match the original spacing.

Note: Lateral loads have not been considered at this time.

If you have any questions regarding this report, please do not hesitate to contact this office.

Respectfully Yours,  
Structures North Consulting Engineers, Inc.

Stephanie Davis

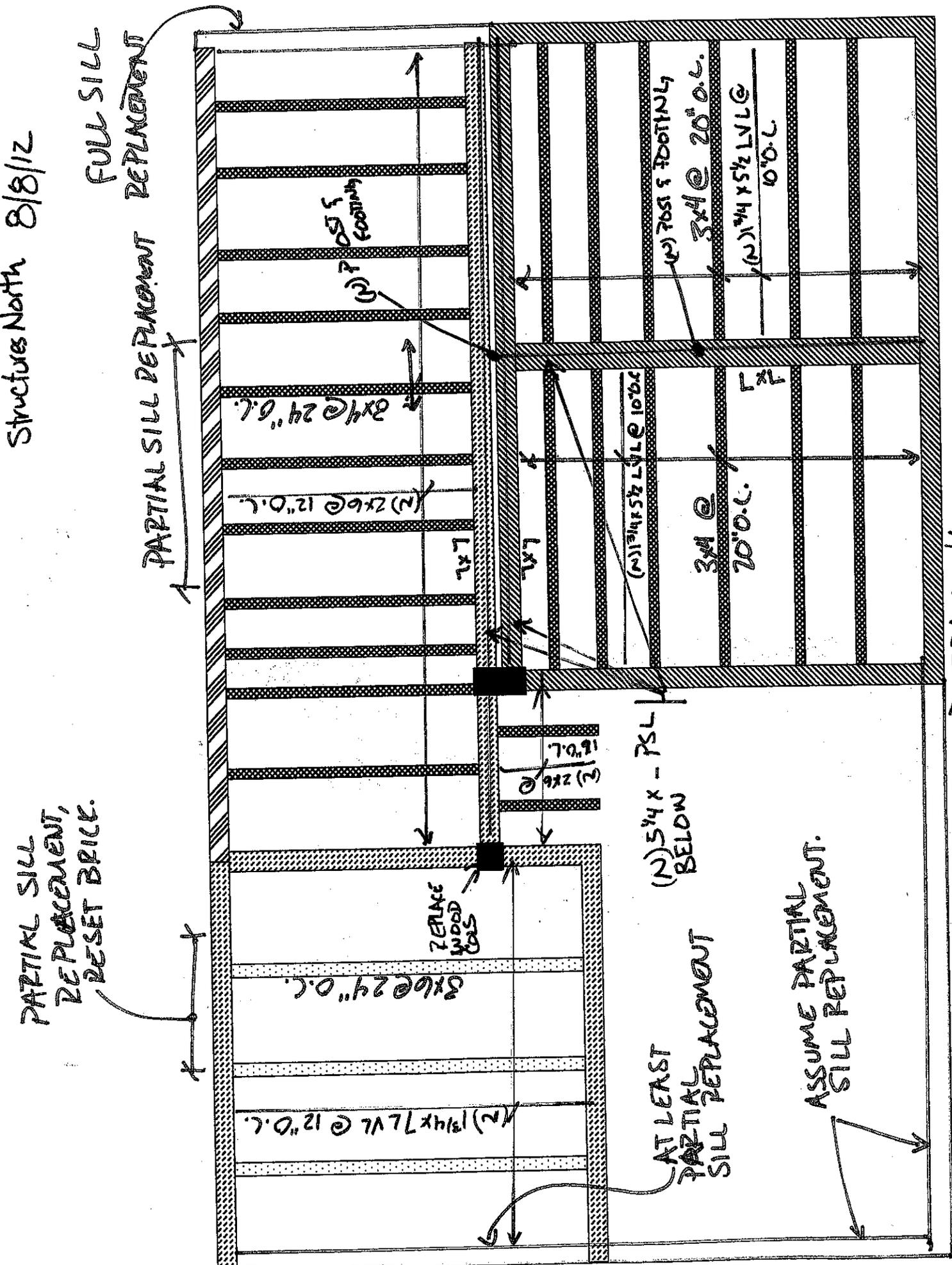
John M Wathne

Structures North 8/8/12

PARTIAL SILL REPLACEMENT, RESET BRICK.

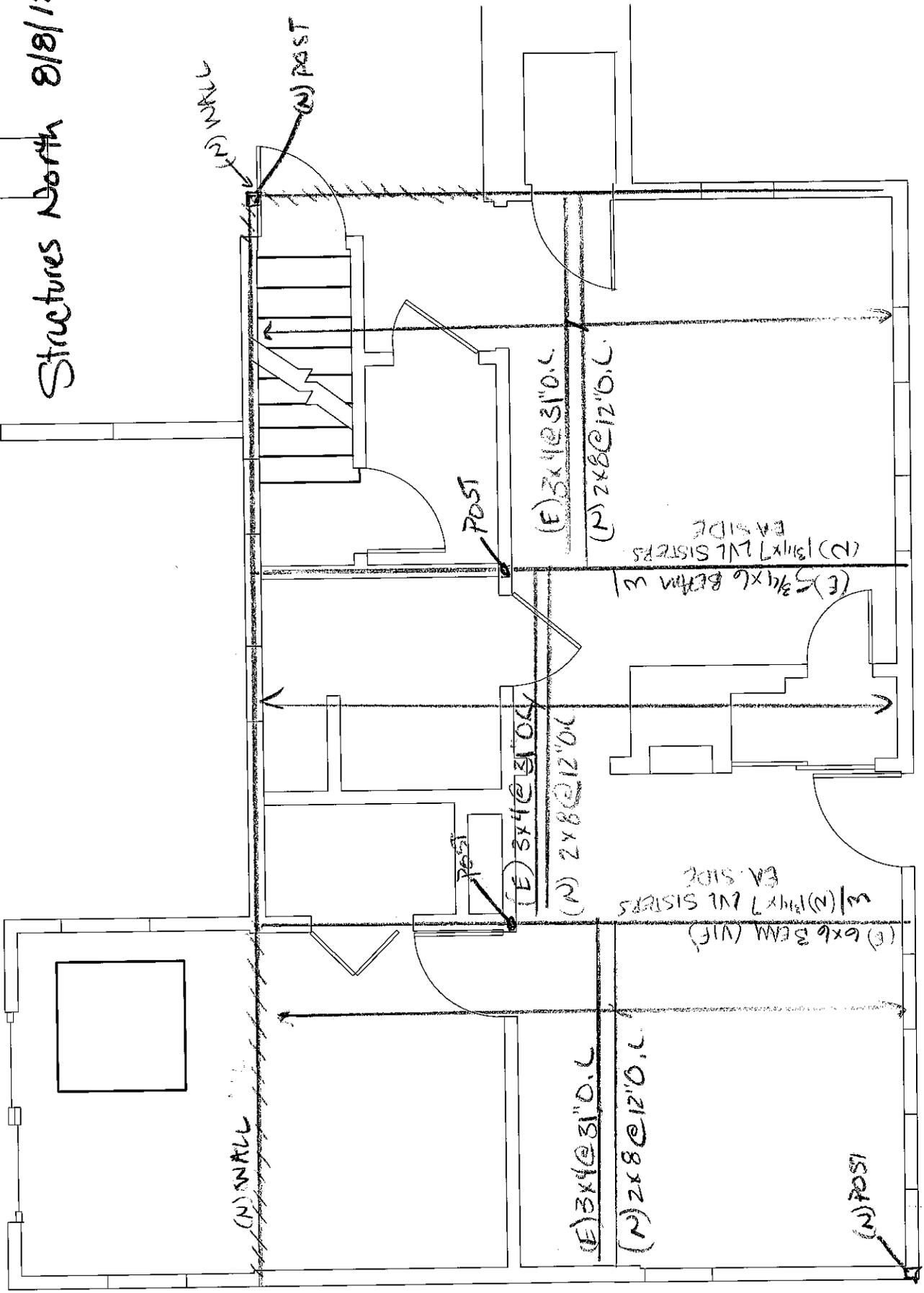
FULL SILL REPLACEMENT

PARTIAL SILL REPLACEMENT



FIRST FLOOR FRAMING.

Structures North 8/8/12



SECOND FLOOR FRAMING

1/8-6/10





## B) HISTORIC FRAMING REPORT: FINCH & ROSE







Photo 1

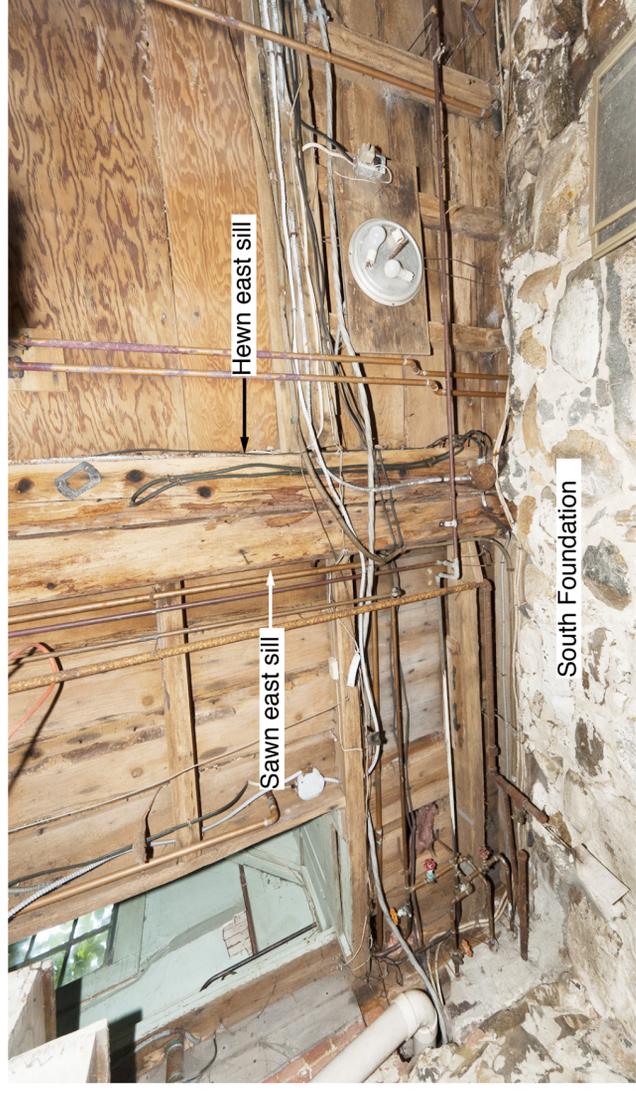


Photo 2



Photo 3

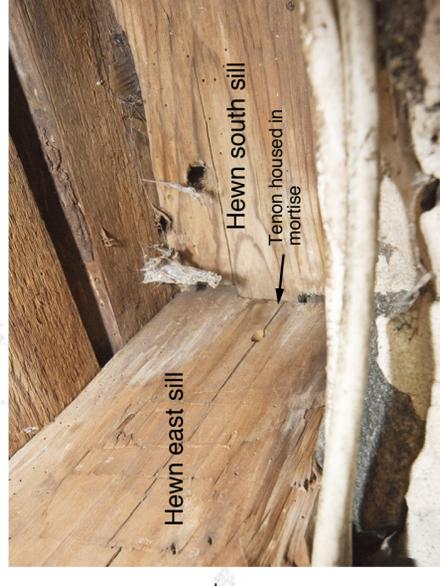


Photo 4



Photo 5: Hewn sill and summer beam with sawn oak joists is same age as hewn frame of rm 114 above it.

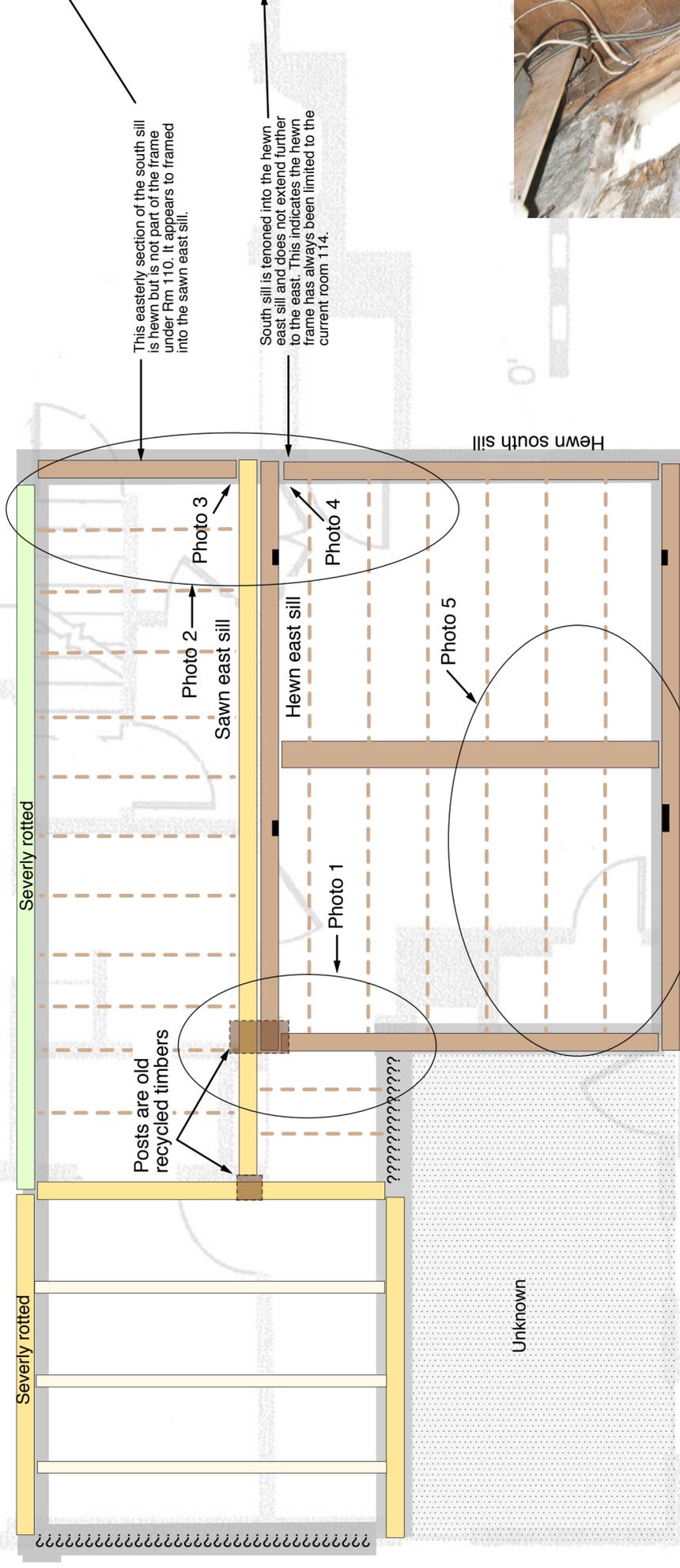


Photo 6: Detail of south end girt showing two layers of floor joists with the later joist framed into the circular sawn girt to carry the current second floor boards. The early oak joists do not have evidence of past flooring on top of them, nor hangers for a plaster ceiling. This suggests the early frame of room 114 was open to the sheathing boards of its original roof.



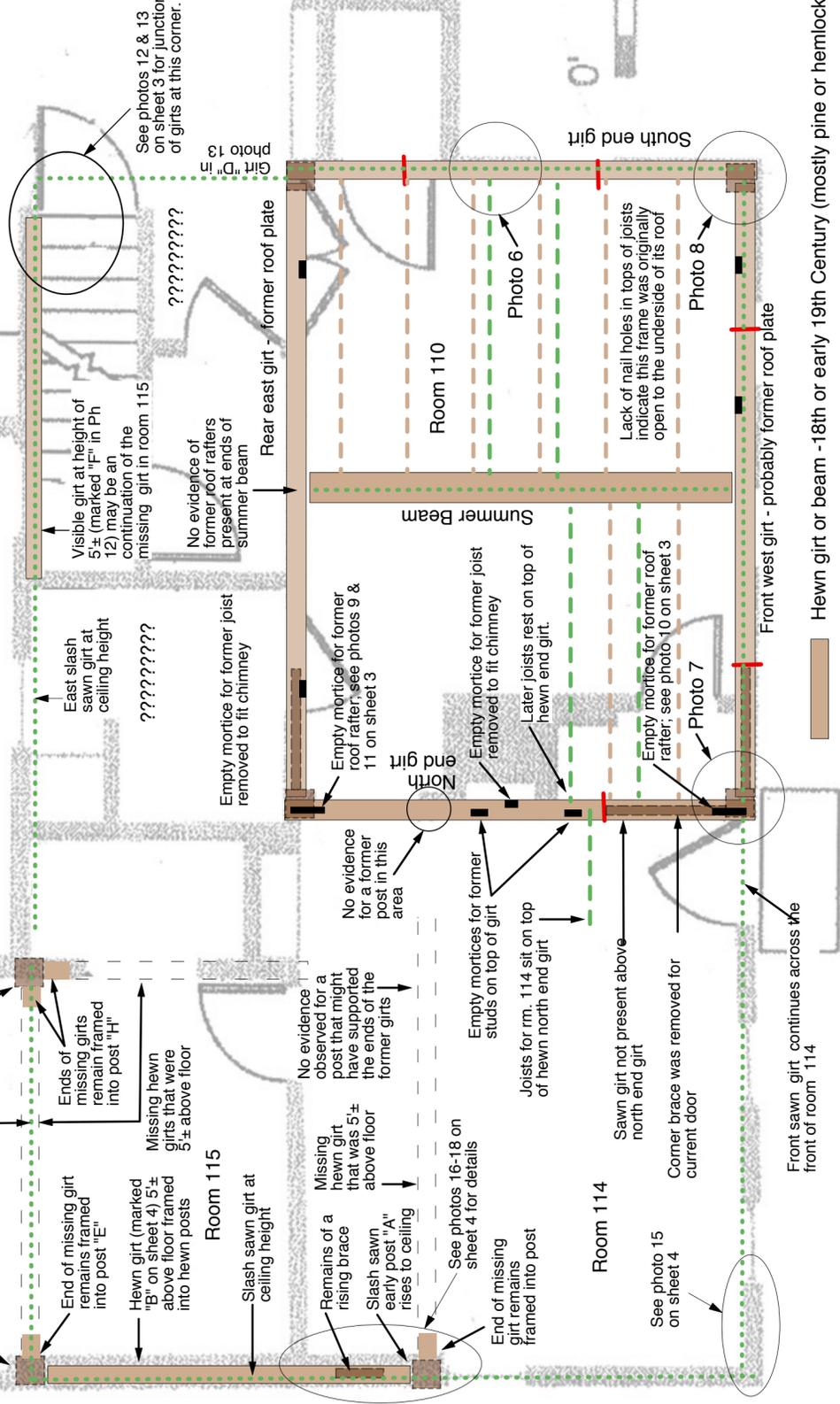
Hewn posts 5± high with hewn horizontal girts framed into their tops - Reused timbers extend the posts to the current ceiling height - perhaps this was originally a lean-to structure that was installed when the current roof frame was installed in the mid-19th century; see photos 19-22 on sheet 4 for details.

Slash sawn girt at ceiling height  
 Ends of missing girt remains framed into post "E"  
 Hewn girt (marked "B" on sheet 4) 5± above floor framed into hewn posts  
 Missing hewn girts that were 5± above floor  
 Slash sawn girt at ceiling height

Room 115  
 Remains of a rising brace that was 5± above floor  
 Slash sawn early post "A" rises to ceiling  
 See photos 16-18 on sheet 4 for details  
 End of missing girt remains framed into post

No evidence observed for a post that might have supported the ends of the former girts  
 Empty mortises for former studs on top of girt  
 Joists for rm. 114 sit on top of hewn north end girt  
 Sawn girt not present above north end girt  
 Corner brace was removed for current door  
 Front sawn girt continues across the front of room 114

See photo 15 on sheet 4  
 Empty mortise for former rafter; see photos 9 & 11 on sheet 3  
 Empty mortise for former joist removed to fit chimney  
 Later joists rest on top of hewn end girt  
 Empty mortise for former rafter; see photo 10 on sheet 3  
 Photo 7



- Hewn girt or beam - 18th or early 19th Century (mostly pine or hemlock)
- Slash sawn oak 3x4 joist set in hewn girts - 18th or early 19th Century
- Slash sawn oak 3x4 corner brace - 18th or early 19th Century
- Pin for corner brace (brace not visible) - 18th or early 19th Century
- Circular/slash sawn girts or beams - Mid 19th to 20th century - probably added with current roof frame (pine ?)
- Sawn joists set in circular sawn girts - Mid 19th to 20th century (pine ?)
- Unused open mortise
- Hewn post below girt - 18th or early 19th Century (oak)

### ASA PARLIN HOUSE VISIBLE EARLY FIRST FLOOR FRAMING SHEET 2

Scale: 3/8" = 1'

NOTE: Circular sawn 5x5 girts and beams are set directly on top of the hewn frame front and south girts and summer beam and have their own joists to carry the second floor boards and rafters for the south pitch of the roof. These girts were probably installed when room 114 was added to the previous "L" shaped plan to create the current rectangular front block of the house in the second half of the 19th century.

Photo 7: NW corner of hewn frame showing hewn oak post and slash sawn corner brace. Top of post is tenoned into the bottom of the south girt but does not have the shouldered haunch that would be normal for this joint in the 18th century (i.e., an English tie joint), suggesting it may date to the early 19th century. The front plate is tenoned into the north end girt, and the north girt has an empty mortise at its end to receive the tenon of a principal roof rafter. This indicates the hewn frame was once a one room, single story free standing structure. The existing lath and plaster on the walls is sawn lath of roughly uniform dimension and dates to the mid 19th century at the earliest. As there is no evidence of previous lath and plaster on the wall studs, the space defined by the hewn frame was likely originally unfinished and probably served some utilitarian function rather than being part of a dwelling.

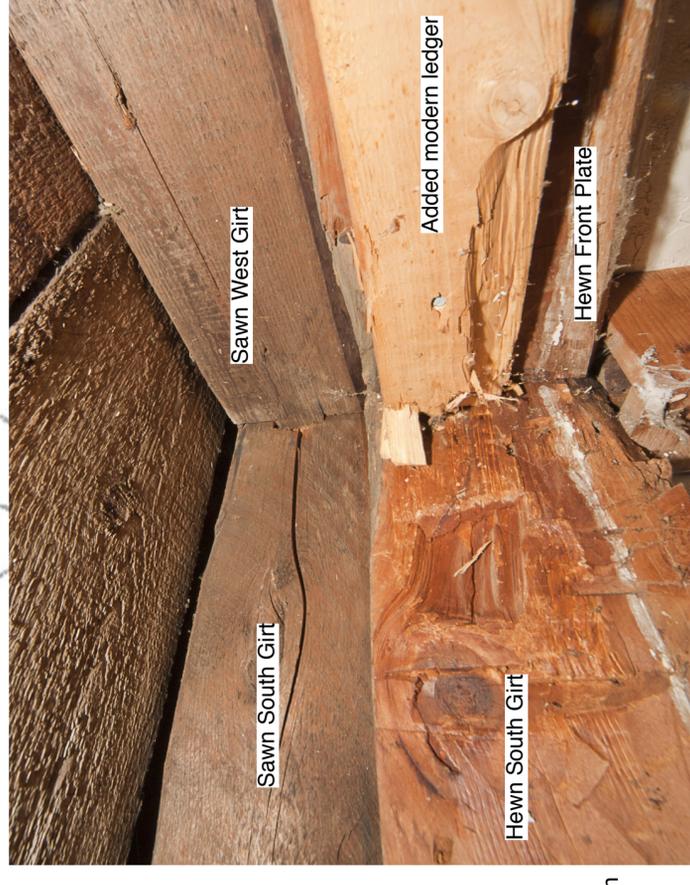


Photo 8: Circular sawn girts set on top of hewn girts at SW corner of room 110. Hewn front plate is framed into the south girt.

NOTE: Positions of floor joists are approximate. Modern supplemental framing and framing that could not be seen is not shown.



**Photo 9:** Mortise for former roof rafter in east end of north end girt. Slanted surface at "A" indicates the pitch of the roof rafter.



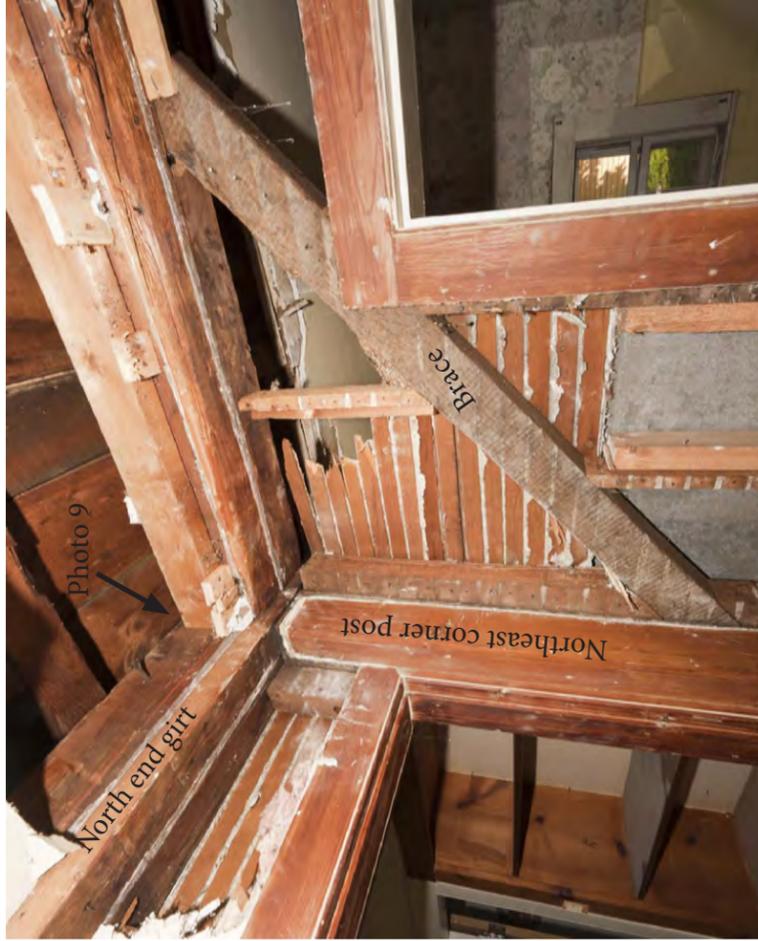
**Photo 10:** Mortise for former roof rafter in west end of north end girt. "B" indicates the top of the tenon of the corner post that is also housed in this mortise this mortise.



**Photo 12:** Southeast corner of the mid-19th century structure. "C" marks the east slash sawn girt. "D" marks south slash sawn girt. "E" is modern reused framing. "F" may be a continuation of the missing lower east hewn girt in room 115.



**Photo 13:** Detail of the southeast corner of the mid-19th century structure. Letters indicate members labeled in photo 12. There is no indication of a former corner post under the junction of girts C and D. Perhaps D was on top of an earlier girt that was removed when the framing at "E" was added.



**Photo 11:** Northeast corner of room 110 with plaster removed to show the framing.



**Photo 14:** Overview roof framing. The rafters are clearly mid-19th century or later. The south (right) pitch uses mostly spaced boards with waney edges, while the north pitch (left) has tight boarding.



**Photo 15:** White arrow points to empty mortise in north girtd "D" from former corner post at the NE corner of rm 114. Whether this indicates an early alteration or that the girtd is reused is not clear.

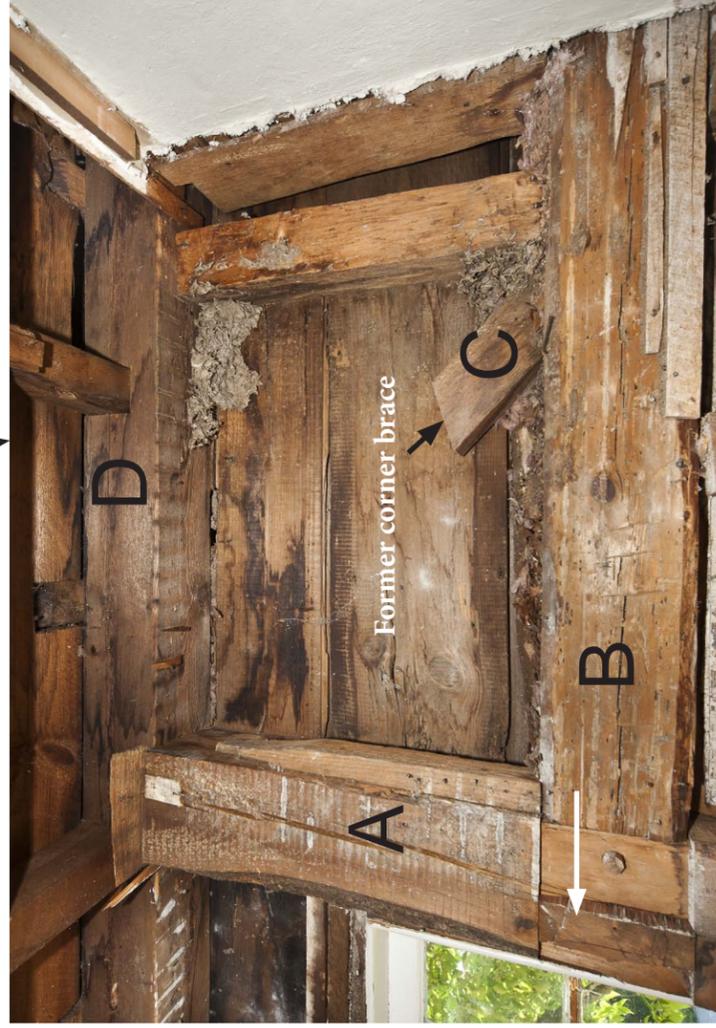


**Photo 19:** Looking west in room 115 towards room 114. Dashed line marks position of existing sawn girtd that is part of the mid-19th century frame (likely a continuation of "C" in photo 12).



**Photo 16:** Detail of mid 19th century wallpaper. There is no evidence of this finish above horizontal girtd.

**Photo 17 (left):** North end of Room 114.



**Photo 18:** Detail of north wall in rm 114. "A" marks the upper section of the slash sawn post that rises to the full height of the room. "B" marks the hewn horizontal girtd framed into "A" at about the 5' level that extends into rm 115 where its end is framed into the top of post "E". "D" is the slash sawn north girtd that is part of the frame added to receive the current roof members A, B, and C are earlier than D and may have framed an earlier leanto structure, as posts E and H in photos 20 and 21 originally rose only to the height of girtd B. White arrow points to the tenon of a former north/south girtd.



**Photo 21:** "E" is an early hewn post that ends at its joint with girts "B" and "G". "B" is the east end of the girtd marked "B" in photo 18. "G" is the end of a former girtd that spanned across to post "H". "I" is a reused timber that was added to extend post "E" up to the current roof frame. The white arrow points to mortise from its previous use.



**Photo 20:** Early hewn post "H" terminates at its junction with the former girts about 5' above the floor. The section "I" above the joint with the girts is a reused piece to bring the post up to support the later sawn girts at the base of the current roof.



**Photo 22:** Detail of photo 20 showing the pins that secured the former girts to the top of post "H". "J" is the tenon of "H" that received a former east/west girtd, remnants of which are marked "K". White arrow points to the pin that secured the north/south girtd ("G" in photo 21) in place.

C) HAZARDOUS MATERIALS REPORT: FUSS & O'NEILL ENVIROSCIENCE



# Limited Hazardous Building Materials Inspection

17 Woodbury Lane  
Acton, MA

July 31, 2012

**Menders, Torrey & Spencer, Inc.**  
Boston, Massachusetts

August 9, 2012



**FUSS & O'NEILL**  
EnviroScience, LLC

Fuss & O'Neill EnviroScience, LLC  
50 Redfield Street, Suite 100  
Boston, Massachusetts 02122



**FUSS & O'NEILL**  
EnviroScience, LLC

August 9, 2012

Mr. Patrick Guthrie, RA, LEED AP  
Project Architect  
Menders, Torrey & Spencer, Inc.  
123 North Washington Street  
Boston, Massachusetts 02114

**Re: Limited Hazardous Materials Inspection**  
**17 Woodbury Lane, Acton, MA**  
Fuss & O'Neill EnviroScience, LLC No. 20121080.A1E

Dear Mr. Guthrie:

Enclosed is the report for the limited hazardous building materials inspection conducted in response to proposed renovations for 17 Woodbury Lane located in Acton, Massachusetts.

The services were performed on July 31, 2012 by Fuss & O'Neill EnviroScience, LLC licensed inspector(s) and included a limited asbestos inspection and lead-based paint determination. The information summarized in this document is for the above-mentioned materials only. The work was performed in accordance with our written proposal dated July 31, 2012.

If you have any questions regarding the contents of this report, please do not hesitate to contact Bob May at (617) 282-4675, extension 4701. Thank you for this opportunity to have served your environmental needs.

Sincerely,



Robert L. May, Jr.  
Vice President



Steve W. Connelly  
Senior Vice President

50 Redfield Street  
Suite 100  
Boston, MA  
02122  
t (617) 282-4675  
f (617) 282-8253  
[www.FandO.com](http://www.FandO.com)

RLM/ftc  
Enclosure

Connecticut  
Massachusetts  
Rhode Island  
South Carolina

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## Limited Hazardous Building Materials Inspection Report 17 Woodbury Lane, Acton, MA Menders, Torrey & Spencer, Inc.

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## 1 Introduction

On July 31, 2012, Fuss & O'Neill EnviroScience, LLC (EnviroScience) representatives, Jonathan Hand and Nick Gravallese, performed a limited hazardous building materials inspection for proposed renovations at 17 Woodbury Lane located in Acton, Massachusetts. The site inspection included a limited asbestos inspection and lead-based paint determination. Refer to *Appendix A* for a copy of licenses.

This limited hazardous building materials inspection was performed in response to proposed renovations as part of a feasibility study, and included the entire building. A previous inspection report issued by Levine, Fricke, Recon on October 20, 1998 was provided, and is included in *Appendix B*. The work was performed for Menders, Torrey & Spencer, Inc. in accordance with written scope of services dated July 31, 2012. Note: Testing for polychlorinated biphenyls (PCB's) in building materials was excluded from services.

## 2 Asbestos Inspection

A property Owner must ensure that performance of a thorough inspection for asbestos-containing materials (ACM) prior to possible disturbance of materials containing asbestos during renovation or demolition is conducted. This is a requirement of the U.S. Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation 40 CFR Part 61, Sub-Part M.

This includes Friable, Non-Friable Category I and Non-Friable Category II ACM.

- A Friable Material is defined as material that contains greater than 1 percent asbestos, that when dry **can** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category I Non-Friable Material refers to material that contains greater than 1 percent asbestos (e.g. packings, gaskets, resilient floor coverings, asphalt roofing products, etc.) that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category II Non-Friable Material refers to any non-friable material (excluding Category I materials) that contains greater than 1 percent asbestos that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.

Massachusetts Department of Environmental Protection (MassDEP) further defines the definition of asbestos-containing materials as any material containing 1 percent or more asbestos to be an ACM.

During this inspection, suspect asbestos-containing materials (ACM) were separated into three USEPA categories. These categories are Thermal System Insulation (TSI), Surfacing (SURF), and Miscellaneous (MISC). TSI includes all materials used to prevent heat loss/gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded insulation on pipe fittings. Surfacing ACM includes all ACM that is sprayed, troweled, or otherwise applied to an existing surface. Surfacing ACM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed as thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tiles.

Samples are recommended to be collected in a manner sufficient to determine asbestos content and include homogenous building materials. The USEPA NESHAP regulation does not specifically identify a minimum number of samples to be collected, but recommends the use of sampling protocols included in 40 CFR Part 763, Sub-Part E - Asbestos Containing Materials in Schools.

Samples of suspect asbestos-containing materials were collected in accordance with United States Environmental Protection Agency (USEPA) recommendations and Asbestos Hazard Emergency Response Act (AHERA) protocols. The protocols included the following:

1. Surfacing Materials (SURF) such as plaster, spray-on fireproofing, etc. were collected in a randomly distributed manner representing each homogenous area based on the overall quantity represented by the sampling as follows:
  - a. Three (3) samples collected from each homogenous area that is less than or equal to 1,000 square feet.
  - b. Five (5) samples collected from each homogenous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
  - c. Seven (7) samples collected from each homogenous area that is greater than 5,000 square feet.
2. Thermal System Insulation (TSI) (e.g. pipe insulation, tank insulation, etc.) was collected in a randomly distributed manner representing each homogenous area. Three (3) bulk samples were collected from each material and sent to laboratory for asbestos analysis. Also, a minimum of one (1) sample of any patching material (less than 6 linear of square feet) applied to TSI was collected.

Miscellaneous Materials (MISC) (e.g. floor tile, gaskets, construction mastics, etc.) had a minimum of two (2) samples collected as representative of each homogenous material type. Sampling was conducted in a manner sufficient to determine asbestos content of the homogenous material as determined by the Asbestos Inspector. If materials identified were of (significant) minimal quantity, only a single sample was collected.

The inspector(s) collected samples and prepared proper chain of custody for transmission of samples to an accredited laboratory for analysis by Polarized Light Microscopy (PLM). Samples of all suspect ACM to be impacted by the renovations were collected. The sampling locations, material type, sample identification, and asbestos content are identified by bulk sample analysis in Tables 1 and 2 of the "Results" section. Any materials on the site not listed in the following tables should be considered suspect ACM until sample results prove otherwise. Refer to *Appendix C* for asbestos sample results.

## 2.1 Results

Utilizing the USEPA protocol and criteria, the following materials were determined to be **ACM**:

**TABLE 1**  
**Asbestos Containing Materials**

SAMPLED LOCATION	MATERIAL TYPE	SAMPLE NO.	ASBESTOS CONTENT
<b>Results from Previous Inspection by Others on October 20, 1998</b>			
Basement	Transite Board	501561	35% Asbestos
Kitchen and Dining Room	Brick Pattern Linoleum Flooring	501574	20% Asbestos
		501575	
Basement	Flue Patching Material	501562 501563	8% Asbestos
Throughout	Joint Tape and Compound	501566	3% Asbestos
		501568	
		501570	
		501572	
<b>Results from Fuss &amp; O'Neill, EnviroScience Inspection on July 31, 2012</b>			
Room 1	Troweled Skim Coat on Drywall (Wall & Ceiling)	01-A	2% Chrysotile
Room 3	Skim Coat Wall Plaster	02-A	2% Chrysotile
Room 2	Black Sink Undercoat	08-A	10% Chrysotile
Room 7	Textured Wall Skim on Drywall	09-A	2% Chrysotile
Exterior	Exterior Door Caulking	15-B	10% Chrysotile

Utilizing the USEPA protocol and criteria, the following materials were determined not to contain asbestos.

**TABLE 2**  
**Non-Asbestos Containing Materials**

SAMPLED LOCATIONS	MATERIAL TYPE	SAMPLE NO.
<b>Results from Previous Inspection by Others on October 20, 1998</b>		
Basement	Wire Covering	501564
Throughout	Drywall	501567
		501569
Exterior	Window Glazing Compound	501581 501582
Throughout Older Section	Horse Hair Plaster	501565
		501576
		501577

SAMPLED LOCATIONS	MATERIAL TYPE	SAMPLE NO.
First Floor Room 112	Textured Wall and Ceiling Skim	501579 501580
<b>Results from Fuss &amp; O'Neill, EnviroScience Inspection on July 31, 2012</b>		
Room 4	Plaster Ceiling	03- A-B
Chimney Flue	Flue Cement	04- A-B
Room 5	Popcorn Ceiling	05 A-C
Room 5 Closet	Window Glazing Compound*	06- A-B
Room 4	Window Glazing Compound*	07 A-B
2 <sup>nd</sup> Floor Bathroom near Room 6	Shower Caulking*	10 A-B
2 <sup>nd</sup> Floor Bathroom near Room 6	(Tan) Ceramic-Tile Adhesive*	11- A-B
Roof	Asphalt Shingle	12- A-C
Roof	Roofing Paper	13 A-C
Exterior	Black Building-Paper underneath Exterior Siding	14- AB

\*Material type recommended for confirmatory TEM analysis

Refer to *Appendix D* for Site Plan referencing room numbers.

## 2.2 Discussion

The USEPA, Occupational Safety and Health Administration (OSHA), and the Commonwealth of Massachusetts Department of Labor Standards (DLS), formerly known as the Division of Occupational Safety (DOS), defines any material that contains greater than one percent (>1%) asbestos, utilizing PLM, as being an ACM. The Commonwealth of Massachusetts Department of Environmental Protection (MassDEP) defines any material that contain equal to or greater than one percent ( $\geq 1\%$ ) asbestos as being an ACM. Materials that are identified as "none detected" are specified as not containing asbestos.

The USEPA has suggested that materials that are non-friable organically bound materials (e.g. mastic adhesives, etc.) are recommended for further confirmatory analysis utilizing Transmission Electron Microscopy (TEM). Four of the collected samples noted in Table 2 (NOB), are recommended to be analyzed by TEM NOB method and can be analyzed if requested within a one month holding period.

Table 3 identifies the location, materials type and quantity of ACM identified during this inspection. Any suspect material not identified in this inspection should be presumed to contain asbestos.

**TABLE 3**  
**Materials Present Containing Asbestos**

<b>LOCATION</b>	<b>MATERIAL TYPE</b>	<b>ESTIMATED QUANTITY</b>
Basement	Transite Board	50 SF
Kitchen and Dining Room	Brick Pattern Linoleum Flooring	500 SF
Basement	Flue Patching Material	5 SF
Throughout	Joint Tape and Compound (Includes Removal of Drywall)	3,600 SF
Room 1	Troweled Skim Coat on Drywall (Wall & Ceiling)	1,300 SF
Rooms 3 & 4	Skim Coat Wall/Ceiling on Plaster and Drywall	1,500 SF
Room 2	Black Sink Undercoat	1 Sink
Rooms 7 & 8	Textured Wall Skim on Drywall	1,000 SF
Exterior	Exterior Door Caulking	3 EA (75 LF)

## 2.3 Conclusion

The materials determined to contain asbestos that will be impacted by any proposed renovation and or demolition work must be abated by a licensed Asbestos Abatement Contractor prior to disturbance in building demolition or renovation. This includes both friable and non-friable ACM materials. This is a requirement of the Commonwealth of Massachusetts DLS, MassDEP and USEPA NESHAP standards for asbestos abatement.

EnviroScience recommends that a comprehensive scope of work and technical specification be developed as part of renovation plans for the site. An opinion of cost for the complete removal of all identified asbestos is included. Note the total cost is inclusive of removing all asbestos and a more limited scope can be tailored to any specific renovation work as necessary.

Any suspect material encountered during renovation/demolition that is not identified in this report, as being non-ACM should be assumed to be ACM unless sample results prove otherwise.

## 3 Lead-Based Paint Determination

A lead-based paint determination was performed for representative building components by Fuss & O'Neill EnviroScience, LLC (EnviroScience) representative, Jonathan Hand, on July 31, 2012. An X-ray fluorescence (XRF) analyzer was used to perform the lead-based paint determination. The testing was conducted in accordance with the protocol outlined in the attached document: "Testing Procedures and Equipment" (*Appendix E*).

A Radiation Monitoring Device Model LPA-1, serial number 1395, was utilized for the lead-based paint determination. The instrument was checked for proper calibration prior to each use as detailed by the manufacturer and the Performance Characteristic Sheet (PCS) developed for the instruments.

For the purpose of this lead-based paint determination, representative building components were tested according to scope of renovation work. Of course, individual repainting efforts are not discoverable in such a limited program. Lead-based paint issues involving properties that are not residential are regulated to a limited degree to worker protection involving paint disturbing work activities and waste disposal.

Worker protection is regulated by OSHA regulations as well as DLS regulations. These regulations involve air monitoring of workers to determine exposure levels when disturbing lead-containing paint. A lead-based paint determination cannot determine a safe level of lead but is intended to provide guidance as to the locations of what are considered industry standards for lead in paint. Contractors may then better determine exposure of workers to airborne lead by understanding the different concentrations of lead-based paint on representative components and surfaces. Air monitoring can then be performed during activities that disturb paint on representative surfaces.

The USEPA Resource Conservation and Recovery Act (RCRA), as well as MassDEP, regulate disposal of lead-containing waste. Waste materials containing lead that will be impacted during renovation or demolition and result in waste for disposal must be tested using the Toxicity Characteristic Leachate Procedure (TCLP) analysis if lead is determined to be present in non-residential buildings. A TCLP sample is a representative sample of the intended waste stream. The results are compared to the level of greater than 5.0 mg/L that is considered hazardous lead waste. If the result is below the established level the material is not considered hazardous and may be disposed of as normal construction debris.

A level of lead-based paint exceeding 1.0 milligrams of lead per square centimeter (mg/cm<sup>2</sup>) is considered toxic or dangerous for compliance with residential standards. For purpose of this lead-based paint determination the level of 1.0 mg/cm<sup>2</sup> has been utilized as a threshold for areas where possible worker exposures may occur. The complete results of lead-based paint determination are included in *Appendix F*.

### 3.1 Results

The lead-based paint determination indicated consistent painting trends associated with representative building components that may be impacted by possible renovation work. Numerous painted components were determined to contain levels of lead (greater than 1.0 mg/cm<sup>2</sup>) including the following:

**TABLE 4**  
**Lead Painted Building Components**

LOCATION	ITEM	READING (mg/cm <sup>2</sup> )
Room 3	Walls	2.5 – 6.2
Room 3	Window Components	1.0
Room 3	Window Casing	>9.9
Room 3	Ceiling Plaster	5.0
Room 4	A Door Frame	9.5

LOCATION	ITEM	READING (mg/cm <sup>2</sup> )
Room 4	A Door	9.5
Room 4	C Door Frame	9.5
Room 4	Window Components	1.0
Room 5	A Door	2.9
Room 5 Closet	Stored Windows	>9.9
Room 6	B1 Door	0.5 – 2.5
Room 7	Window Components	1.0
2 <sup>nd</sup> Floor Hallway	Window Components	5.9
2 <sup>nd</sup> Floor Hallway	Window Frame	5.9
Exterior	Window Casing	>9.9
Exterior	A Door Frame	>9.9
Exterior	Soffit	5.1

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### 3.2 Discussion

OSHA published a Lead in Construction Standard (OSHA Lead Standard) 29 CFR 1926.62 in May 1993. The OSHA Lead Standard has no set limit for the content of lead in paint below which the standards do not apply. The OSHA Lead Standards are task-based and are based on airborne exposure and blood lead levels.

The results of this survey are intended to provide guidance to contractors for occupational exposure control to lead. Building components containing lead levels above industry standards may cause exposures to lead above OSHA standards during demolition and renovation activities. A TCLP sample to characterize the expected waste that may result from possible selective demolition and/or renovation work was not collected as part of this preliminary feasibility study. Upon determination of proposed renovation scope, a TCLP sample is recommended to determine disposal requirements for waste. Included in the Opinion of Cost is a line item for disposal of lead paint components as presumed hazardous waste.

---

### 3.3 Conclusion

Contractors must be made aware that OSHA has not established a level of lead in a material below which 29 CFR 1926.62 does not apply. Contractors shall comply with exposure assessment criteria, interim worker protection and other requirements of the regulation as necessary to protect workers during any renovation work which will impact lead paint.

Lead paint was found on numerous building components including, but not limited to, plaster walls and ceilings, interior/exterior window and door components, and exterior trim/support pieces associated with roofing. EnviroScience understands that there are no proposed selective demolition or renovation activities scheduled at this time; the lead screening was carried out as part of a preliminary investigation for a project feasibility study. Note that any future work involving surface preparation or removal of the identified painted surfaces must be performed in accordance with OSHA worker protection requirements and waste must be properly characterized for disposal.

The building is presently characterized as commercial property, which is not subject to the Department of Public Health Child Lead Poisoning Prevention Program (CLPPP) 105 CMR 460.000 regulations. The property may be renovated using procedures required in accordance with OSHA regulation 29 CFR 1926.62 and DLS Regulation 454 CMR 22.11. In addition, the building is not considered a “child occupied facility” and therefore not subject to lead safe renovation requirements of 454 CMR 22.11.

***Disclaimer:** The information contained in the survey report concerning the presence or absence of lead paint does not constitute a comprehensive lead inspection in accordance with Commonwealth of Massachusetts regulations 105 CMR 460. The surfaces tested represent only a portion of those surfaces that would be tested to determine whether the premises are in compliance with the aforementioned regulations, which are specific to a child occupied residence only and not applicable to a building of this type and use.*

We have included an estimated cost for hazardous materials abatement in *Appendix G*.

Note that PCB sampling of Bulk Product Materials was not included as part of this initial feasibility study and is recommended once scope of renovation work is finalized. EnviroScience recommends sampling of window glazing compound and door caulking at a minimum for PCB content; these materials were determined as suspect PCB-containing Bulk Product materials at the time of investigation. EnviroScience recommends collection of at least three samples for each of these materials, which may be completed upon request.

Report prepared by Environmental Technician, Jonathan Hand.

Reviewed by:



Dustin A. Diedricksen  
Project Manager/Scientist



Robert L. May, Jr.  
Vice President

---

## Appendix A

### Inspector Licenses

**Commonwealth of Massachusetts**  
**Department of Labor Standards**

*Heather E. Rowe, Director*

**Asbestos Inspector**



**JONATHAN L. HAND**

Eff. Date 02/23/12

Exp. Date 03/07/13

A1041945

Member of C.O.N.E.S.

NB

**13**



NB-RENEWAL



**Commonwealth of Massachusetts**  
**Department of Labor Standards**

*Heather E. Rowe, Director*

**Asbestos Project Monitor**



**NICHOLAS GRAVALLESE**

Eff. Date 02/17/12

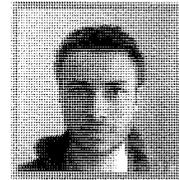
Exp. Date 02/17/13

AM000130

Member of C.O.N.E.S.

WNR

**13**



WN-RENEW



## Appendix B

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Previous Report by Levine Fricke Recon (LFR)

November 17, 1998

Mr. Tobin Tracey  
Turk, Tracey & Larry Architects, LLC  
110 Exchange Street  
Portland, ME 04101

RE: LFR Project No. 104-80445  
Asbestos/Regulated Materials Survey at  
17 Woodbury Lane  
Acton, Massachusetts

Dear Mr. Tracey:

Levine·Fricke·Recon (LFR) was retained by Turk, Tracey & Larry Architects, LLC to conduct an asbestos survey at 17 Woodbury Lane Acton, Massachusetts. LFR collected and analyzed samples of representative suspect asbestos-containing homogeneous applications. LFR's scope of work is subject to the Limitations and Service Constraints attached hereto.

LFR's representative, Mr. Paul Hoffman, conducted the survey on October 20, 1998. LFR identified a total of nine- (9) suspect asbestos containing homogeneous applications. Of the nine homogeneous applications identified, **four were determined to be asbestos-containing**. A total of twenty two (22) bulk samples were collected. The remaining five (5) homogeneous applications were determined to be **non-asbestos**.

### Methodology

#### **Survey Approach:**

Suspect ACM was identified based on a walk-through of accessible areas and materials accessed through minimal demolition activities. Suspect materials were divided into "Homogeneous Applications", building materials which were determined by the inspector to be homogeneous based on their color, texture, and age. A representative number of samples were collected for each Homogeneous Application.

Bulk material samples were collected in "Gelman" footed petri dishes or similar, and sealed for transport to the laboratory. Each sample collected or analyzed by LFR personnel is assigned its own unique bar coded number. All samples are collected, analyzed and stored under strict chain-of-custody protocol.

The following are the Homogeneous Application symbols and other symbols used for identification in this report:

**T = Thermal System Insulation**

**M = Miscellaneous Materials**

**S = Surfacing Materials (Troweled or Spray-Applied)**

**S.F. = Square feet**

**L.F. = Linear feet**

### **Asbestos Analytical Methods**

Material identification was performed using Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the Environmental Protection Agency (EPA) "Interim Method of the Determination of Asbestos in Bulk Insulation Samples" (EPA-600-M4-82-020). Percentage estimates of each material's components are based on the analyst's best judgment following PLM/DS analysis and examination with a stereoscope. PLM/DS analysis was conducted at Sci-Lab Boston, Inc. (Sci -Lab) located at Eight School Street, Weymouth, MA 02189.

Sci-Lab is a member of the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP). Sci-Lab's NVLAP format laboratory analysis results and bulk sample summary are provided as Appendix C.

### **Asbestos Survey Findings**

The Homogeneous Application Summary Chart provided in the following text indicates:

1. LFR's Homogeneous Application designation for each identified suspect material;
2. A description of each material sampled;
3. The sampled material's location;
4. The number of samples collected for the material and quantity;
5. Shaded areas represent confirmed asbestos-containing materials.

**TABLE 1.0**  
**ASBESTOS HOMOGENEOUS APPLICATION SUMMARY CHART**  
 92 Lynnfield Street Peabody, MA

HOMOGENEOUS APPLICATION	MATERIAL DESCRIPTION	SAMPLED MATERIAL LOCATIONS	QUANTITY	SAMPLE NUBERS	RESULT	ABATEMENT COST
M-01	TRANSITE BOARD MATERIAL	BASEMENT ABOVE BOILER	50 s.f.	501561	35% ACBM	\$250.00
M-02	WIIRING COVERING	BASEMENT	25 s.f.	501564	NAD	N/A
M-03	DRYWALL THROUGHOUT THE NEWER SECTION	FIRST & SECOND FLOORS	3,600 s.f.	501567, 501569	NAD	N/A
M-04	BRICK PATTERN LINOLEUM FLOORING	KITCHEN & DINING ROOM	500 s.f.	501574, 501575	20% ACBM	\$9000.00
M-05	EXTERIOR WINDOW GLAZING	EXTERIOR OF THE HOUSE	1,000 s.f.	501581, 501582	NAD	N/A
S-01	FLUE PATCHING MATERIAL	AROUND BOILER & HOT WATER HEATER FLUE PIPE TO CHIMNEY CONNECTIONS	2 s.f.	501562, 501563	8% ACBM	\$100.00
S-02	HORSE HAIR PLASTER	THROUGHOUT THE OLDER SECTIONS OF THE BUILDING	700 s.f.	501565, 501576, 501577	NAD	N/A
S-03	JOINT TAPE & COMPOUND	THROUGHOUT THE NEWER SECTIONS OF THE HOUSE	3,600 s.f.	501566, 501568, 501570, 501572	3% ACBM	\$10,000.00
S-04	TEXTURED WALL & CEILING MATERIAL	FIRST FLOOR ROOM #112	200 s.f.	501579, 501580	NAD	N/A
<b>ASBESTOS REMOVAL COST ESTIMATE</b>					<b>\$ 19,350.00</b>	

**Recommendations**

LFR recommends the asbestos-containing materials which may be disturbed during the planned demolition's activities, be removed by a licensed asbestos abatement contractor utilizing state-of-the-art work procedures and in accordance with all state, federal, and local regulations.

If suspect materials that are not referenced in this report are identified during demolition activities, LFR recommends that the materials be sampled and analyzed to confirm or deny the presence of asbestos prior to disturbance of the materials.

Mr. Tobin Tracey  
Turk, Tracey & Larry Architects, LLC  
11/17/98

**LFR estimates the cost to remove asbestos containing building materials to be approximately \$19,350.00.**

**Regulated Materials Investigation**

# of Containers	Type of Container/Type of Regulated Material	Size/Quantity	Location in House
1	Can/Cleaner Methanol Petroleum Distillates, Methaline Chloride	Pint 1/2 Full	Kitchen
2	Can/Acrylic Latex Paint	Gallon Full	Basement
2	Can/Primer Spray Paint	12 Once Can 3/4 Full	Basement
1	Can/Alkyd Paint	Gallon 3/4 Full	Basement
**1	Metal Oil Fuel Cell	200 Gallon Appears to be Empty	Basement

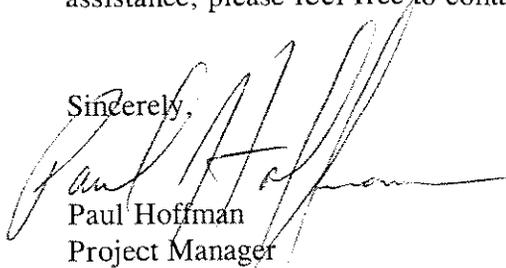
**\*\* Should be verified before disturbing**

**Lead Paint (TCLP) samples should be collected before any demolition activities are planned as per OSHA general industry regulations for demolition or disposal.**

In general RCRA defines the maximum allowable concentration of lead for the toxicity characteristic as 5.0 milligrams/liter (mg/L). Therefore, samples which contain greater than 5.0 mg/L of lead must be handled, stored, treated and disposed of as a hazardous waste in accordance with EPA and Massachusetts Department of Environmental Protection (DEP) Regulations.

Should you have any further questions regarding the aforementioned or if LFR can be of further assistance, please feel free to contact myself directly.

Sincerely,



Paul Hoffman  
Project Manager

Enclosures

G:\104-80445

## Appendix C

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### Asbestos Sample Results and Chain of Custody



# EMSL Analytical, Inc.

7 Constitution Way, Suite 107, Woburn, MA 01801

Phone/Fax: (781) 933-8411 / (781) 933-8412

[bostonlab@emsl.com](mailto:bostonlab@emsl.com)

EMSL Order: 131203726

CustomerID: ENVI54

CustomerPO:

ProjectID:

Attn: **Dustin Diedricksen**  
**Fuss & O'Neill EnviroScience, LLC**  
**146 Hartford Road**  
**Manchester, CT 06040**

Phone: (860) 646-2469  
Fax: (888) 838-1160  
Received: 08/01/12 9:45 AM  
Analysis Date: 8/3/2012  
Collected: 7/31/2012

Project: **20121080.A1E / Menders, Torrey & Spencer, Inc; 17 Woodbury Lane; Acton, MA; Residential**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01-A 131203726-0001	Room 1 - Troweled Skim	Tan Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
01-B 131203726-0002	Room 1 - Troweled Skim				Stop Positive (Not Analyzed)
01-C 131203726-0003	Room 1 - Troweled Skim				Stop Positive (Not Analyzed)
02-A 131203726-0004	Room 3 - Plaster Wall Skim	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
02-B 131203726-0005	Room 3 - Plaster Wall Skim				Stop Positive (Not Analyzed)
03-A 131203726-0006	Room 4 - Plaster Ceiling	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (other)	None Detected
03-B 131203726-0007	Room 4 - Plaster Ceiling	Gray Fibrous Homogeneous	5% Hair	95% Non-fibrous (other)	None Detected
04-A 131203726-0008	Flue Cement - Flue Cement	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Kevin Pine (10)

Steve Grise (18)

Renaldo Drakes, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL357102

Initial report from 08/03/2012 18:38:26



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
04-B 131203726-0009	Flue Cement - Flue Cement				Not Submitted
05-A 131203726-0010	Room 5 - Popcorn Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
05-B 131203726-0011	Room 5 - Popcorn Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
05-C 131203726-0012	Room 5 - Popcorn Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
06-A 131203726-0013	Room 5 Closet (windows) - Window Glazing Compound	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
06-B 131203726-0014	Room 5 Closet (windows) - Window Glazing Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
07-A 131203726-0015	Room 4 - Window Glazing Compound	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
07-B 131203726-0016	Exterior Room 1 (window) - Window Glazing Compound	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
08-A 131203726-0017	Room 2 - Skin Undercoat (black)	Black Non-Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile
09-A 131203726-0018	Room 7 - Textured Wall Skim on Drywall	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
09-B 131203726-0019	Room 8 - Textured Wall Skim on Drywall				Stop Positive (Not Analyzed)
10-A 131203726-0020	2nd Fl Bathroom By Room 6 - Shower Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
10-B 131203726-0021	2nd Fl Bathroom By Room 6 - Shower Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
11-A 131203726-0022	2nd Fl Bathroom By Room 6 - Shower Tan Ceramic Tile Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
11-B 131203726-0023	2nd Fl Bathroom By Room 6 - Shower Ceramic Tile Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
12-A 131203726-0024	Roof - Asphalt Shingle	Black Non-Fibrous Heterogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected
12-B 131203726-0025	Roof - Asphalt Shingle	Black Non-Fibrous Heterogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected
12-C 131203726-0026	Roof - Asphalt Shingle	Black Non-Fibrous Heterogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected
13-A 131203726-0027	Roof - Roof Paper	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
13-B 131203726-0028	Roof - Roof Paper	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
13-C 131203726-0029	Roof - Roof Paper	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
14-A 131203726-0030	Exterior Siding - Black Siding Paper	Black Fibrous Heterogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
14-B 131203726-0031	Exterior Siding - Black Siding Paper	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected
15-A 131203726-0032	Exterior - Door Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
15-B 131203726-0033	Exterior - Door Caulk	White Non-Fibrous Heterogeneous		90% Non-fibrous (other)	10% Chrysotile

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Initial report from 08/03/2012 18:38:26



FUSS & O'NEILL  
EnviroScience, LLC

50 Redfield St, Suite 100, Boston, MA 02122

www.fando.com

(617) 282-4675 Fax (617) 282-8253

SAMPLE LOG FOR ASBESTOS BULKS

Sheet 1 of 3

Project Name: MENNERS, TORREY & SPENCER, INC. Project No. 20121080.AIE  
Building: 17 WOODBURY LANE, ACTON, MA (RESIDENTIAL) Project Manager: JUSTIN NIEDRICKSEN

Sample ID	Sample Location	Material	Result (%)
1 01-A	Room 1	Troweled skim	
2 01-B	Room 1	Troweled skim	
3 01-C	Room 1	Troweled Skim	
4 02-A	Room 3	Plaster wall skim	
5 02-B	Room 3	Plastr wall skim	
6 03-A	Room 4	Plaster <sup>ceiling</sup> <del>rough</del>	
7 03-B	Room 4	Plaster <del>rough</del> ceiling	
8 04-A	Flue cement	Flue cement	
9 B	↓	↓	
10 05-A	Room 5	Popcorn ceiling	
11 B	↓	↓	
12 C	↓	↓	

Analysis Method:  PLM  Other

Turnaround Time 48 Hour

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: \_\_\_\_\_. Please call the EnviroScience Laboratory if analyses will be late at (860) 646-2469.

Fax Results to the EnviroScience Laboratory at: 888-838-1160.

Special Instruction: STOP AT 1ST POSITIVE IN EACH HOMOGENEOUS SET.  
No POINT COUNTING.

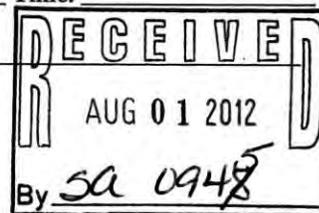
Samples collected by: JH + NG Date: 7/31/12 Time: PM

Samples [Rec'd][Sent by] [ JH ] Date: [ 7/31/12 ] Time: PM

Samples Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Shipped To:  EMSL State MA  Other

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other



Fedex# 7985 3463 0834



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131203726

www.fando.com

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SAMPLE LOG FOR ASBESTOS BULKS

Sheet 2 of 3

Project Name: MENNERS, TORREY & SPENCER, INC. Project No. 20121080.A1E

Building: 17 WOODBURY LANE, ACTON, MA (RESIDENTIAL) Project Manager: JUSTIN NIEDRICKSEN

Sample ID	Sample Location	Material	Result (%)
13 06-A	Room 5 closet (windows)	Window glazing compound	10 windows total
14 B	↓	↓	
15 07-A	Room 4	Window glazing compound	28 windows
16 B	Exterior room 1 (window)	↓	1 Large window. 8x4 (2nd FL) (1st FL)
17 08-A	Room 2	Sink undercoat (Black)	1 total
18 09-A	Room 7	Textured wall skim on dry wall	
19 -b	Room 8		
20 10-A	2nd Fl Bathroom by room 6	Shower caulk	29 Linear feet
21 -b	↓	↓	
22 11-A	2nd Fl Bathroom by room 6	Shower pan ceramic tile adhesive	60 Sq Ft
23 -B	↓	↓	
24 12 A	Roof	Asphalt shingle	

Analysis Method:  PLM  Other Turnaround Time 48 Hour

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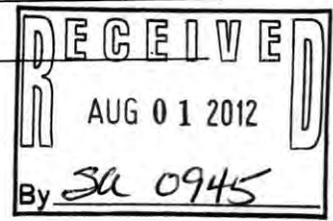
Samples collected by: JH + NG Date: 7/31/12 Time: PM

Samples [Rec'd][Sent by] [ JH ] Date: [ 7/31/12 ] Time: PM

Samples Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Shipped To:  EMSL State MA  Other \_\_\_\_\_

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other





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SAMPLE LOG FOR ASBESTOS BULKS

Sheet 3 of 3

Project Name: MENNERS, TORREY & SPENCER, INC. Project No. 20121080.AIE  
Building: 17 WOODBURY LANE, ACTON, MA (RESIDENTIAL) Project Manager: DUSTIN NIEDRICKSEN

Sample ID	Sample Location	Material	Result (%)
25 b	Roof	Asphalt shingle	
26 c	Roof	↓	
27 13-A	Roof	Roof Paper	
28 b	↓	↓	
29 c			
30 14-A	Exterior siding	black siding paper	
31 B	↓	↓	
32 15A	Exterior	Door caulk	
33 B	↓	↓	

Analysis Method:  PLM  Other

Turnaround Time 48 Hour

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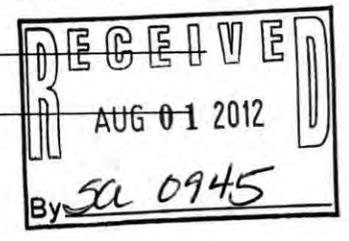
Samples collected by: JH + NG Date: 7/31/12 Time: PM

Samples [Rec'd][Sent by] [ JH ] Date: [ 7/31/12 ] Time: PM

Samples Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Shipped To:  EMSL State MA  Other \_\_\_\_\_

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other \_\_\_\_\_

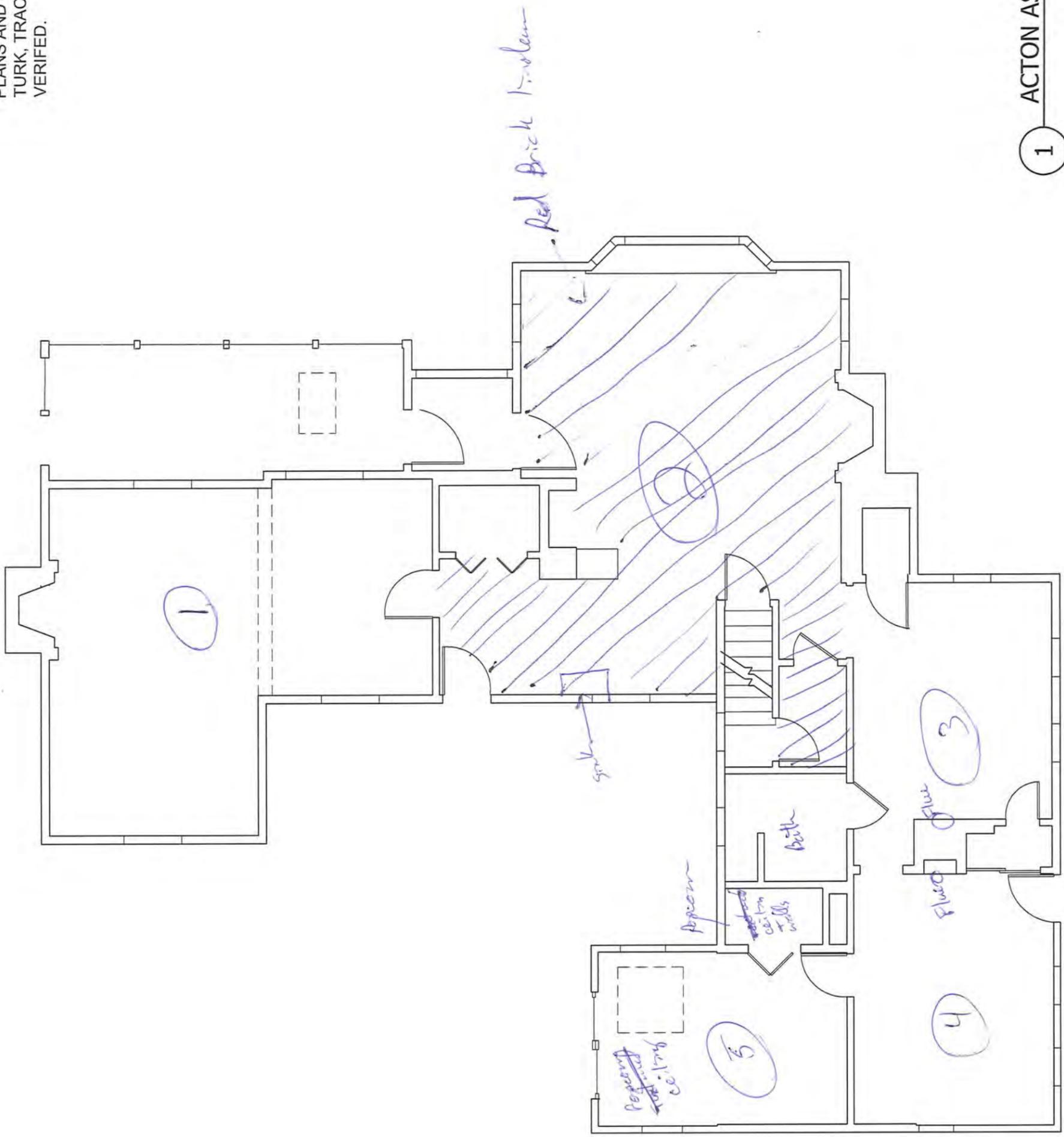


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## Appendix D

### Building Floor Plans

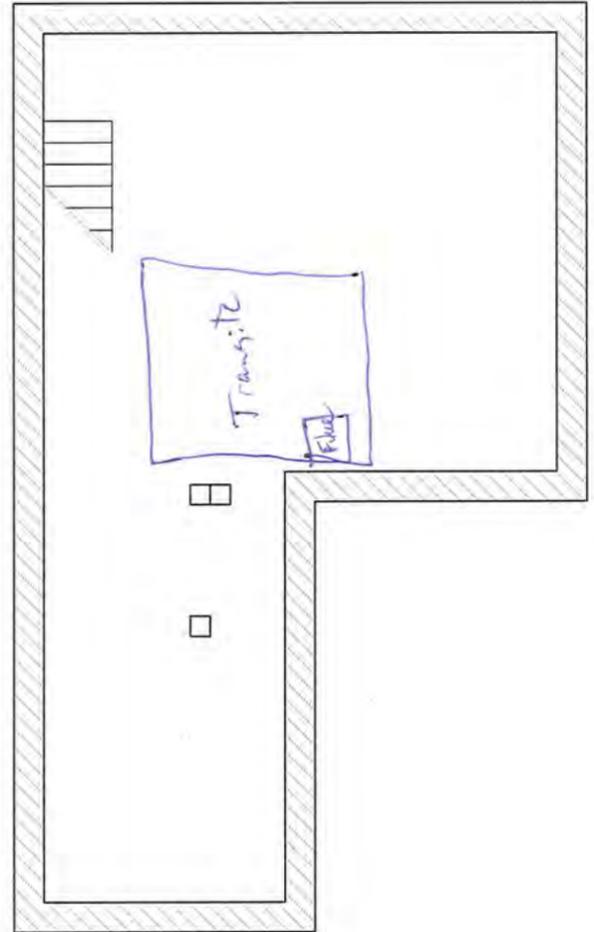
PLANS AND ELEVATIONS BASED ON 1998 DRAWINGS PREPARED BY TURK, TRACY AND LARRY. DRAWINGS HAVE NOT BEEN FIELD VERIFIED.



1 ACTON ASA PARLINS FIRST FLOOR

SCALE: 3/16" = 1'-0"

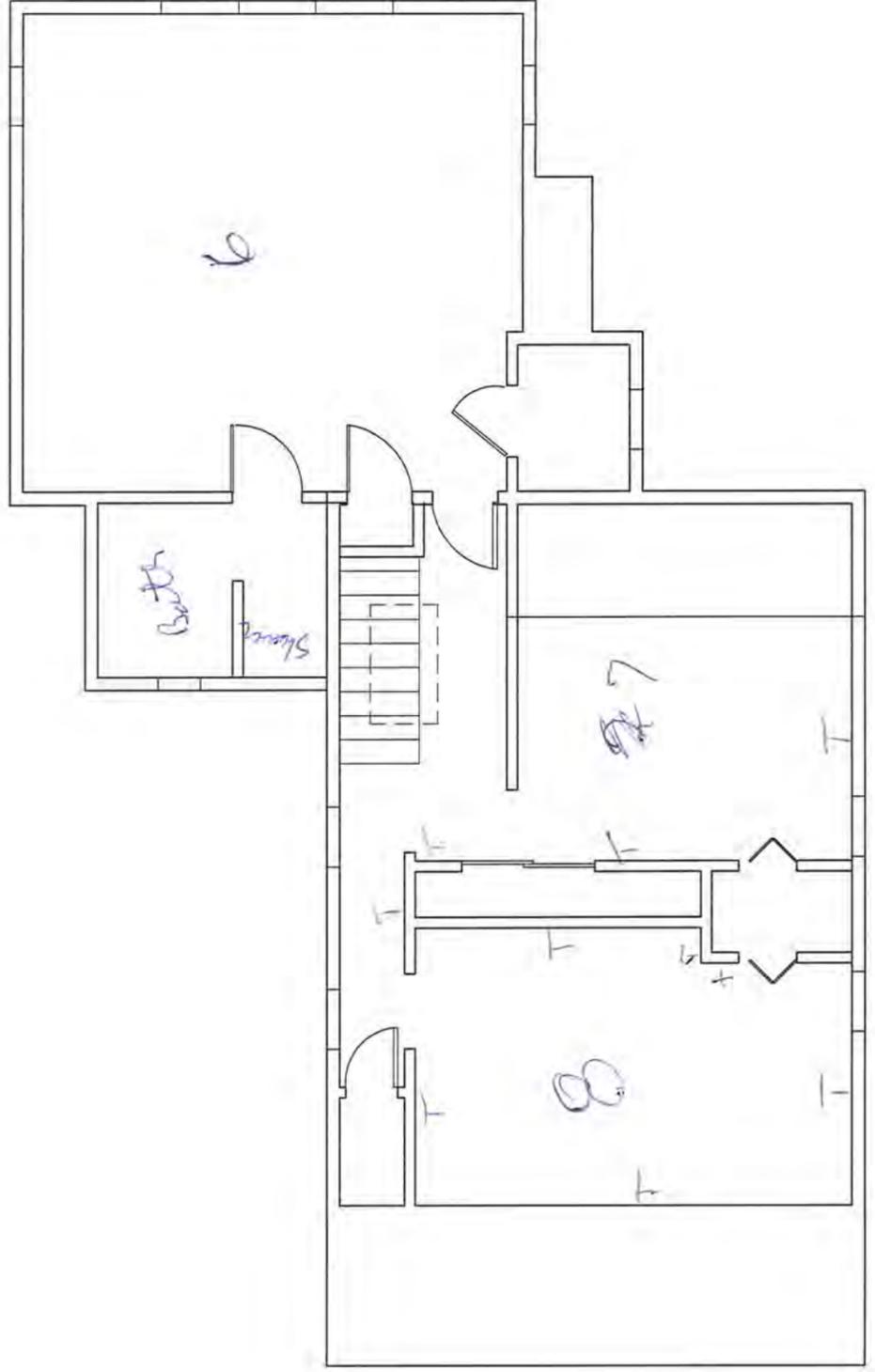
PLANS AND ELEVATIONS BASED ON 1998 DRAWINGS PREPARED BY  
TURK, TRACY AND LARRY. DRAWINGS HAVE NOT BEEN FIELD  
VERIFIED.



1 ACTON ASA PARLIN BASEMENT

SCALE: 3/16" = 1'-0"

PLANS AND ELEVATIONS BASED ON 1998 DRAWINGS PREPARED BY  
TURK, TRACY AND LARRY. DRAWINGS HAVE NOT BEEN FIELD  
VERIFIED.



SCALE: 3/16" = 1'-0"

1 ACTON ASA SECOND FLOOR PLAN

1

## Appendix E

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### Lead Paint Testing Procedures and Equipment

## STANDARD OPERATING PROCEDURES TESTING PROCEDURES AND EQUIPMENT

(Commonwealth of Massachusetts)

Massachusetts General Laws (M.G.L.) c. III, §190-199A 105CMR 460 with reference to lead based paint testing were consulted for this inspection. This regulation is administered by the Massachusetts Department of Public Health's Lead Poisoning Prevention Program. EnviroScience inspectors are licensed by the Commonwealth under this regulation.

This lead evaluation was either comprehensive or a determination. Both the proposed scope of work and the final report will note which type of evaluation was done. A comprehensive inspection means that representative painted surfaces were systematically evaluated on a room by room basis in accordance with the above referenced Massachusetts regulations.

A lead determination means that only a few surfaces were tested and that conclusions about untested areas cannot be reliably determined based on the limited testing that was done. A disclaimer will be employed in the report to note that the lead evaluation done is not in complete accordance with the testing protocol in the Massachusetts lead regulations.

Lead-based paint surfaces and components were identified by utilizing on-site x-ray fluorescence (XRF) instruments. EnviroScience Consultants, Inc. owns and maintains two different types of XRFs for testing for lead-based paint. These instruments are four (4) Radiation Monitoring Device LPA-1s (RMD) and a Scitec MAP 4 analyzer. Each of these instruments is operated in accordance with state and federal and manufacturer standards on the use of the instruments.

The federal government has developed Performance Characteristic Sheets (PCS) for each of the types of instruments cited above. Each instrument must be calibrated in accordance with these PCSs on a 1.0 milligram lead standard. Each of EnviroScience's instruments has one of these standards assigned to it. Some of the standards were purchased directly from the government and the others from the manufacturers of the instruments.

Readings (corrected for a substrate contribution, if applicable) of 1.0 mg/cm<sup>2</sup> or greater are considered to be dangerous levels of lead which must be abated (or in the case of certain metal components, just rendered intact) if a child under the age of six years has access to them and they are either on a defective surface, a chewable surface or a movable/impact surface on window components.

Prior to the start of any testing, a sketch of the building is drawn, and side designations are given to help identify exactly where readings were taken. Drawings depicting the room numbering scheme are located on the cover page(s) for the building(s) inspected. Each side of the building was labeled A, B, C or D. The "A" side of the unit is the side of primary entrance into a dwelling, and this room is always Room 1. Areas in the units include rooms, hallways, and closets. Areas are numbered in a clockwise fashion as building construction allows. This allows the inspector to indicate which substrate surface was tested. The type of hazard (if present) is described by circling the acronym on the testing form.

When more than one surface type was present on a side, the component tested was indicated with a number. If two windows were present on a building side, they were numbered left to right. Closet shelves and shelf supports were numbered top to bottom.

It is understood that the room layouts presented in the report are in conformance with the conditions that exist at the time the testing is performed. EnviroScience avoids labeling a room solely by its current functional use (i.e., living room, bedroom, etc.) since this use can change over time. Similarly, room layouts can change dramatically as dwellings are renovated and additions are built, incorporating existing rooms, or existing interior walls are moved or eliminated altogether.

## Appendix F

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### Lead Testing Field Data Sheet

Room	Side	Surface	Pb by XRF	Defective	Substrate*
Room 1	ABCD	Wall	-0.01		Drywall
Room 1		Ceiling	-0.01		Drywall
Room 1		Window	-0.01		
Room 2	B	Door	-0.1		
	B		-0.01		
	ABCD	Wall	-0.01		Drywall
	D	Window sill	-0.01		
	ABCD	Window Components	-0.01		
Room 3	ABCD	Walls	2.5-6.2		
		Ceiling	-0.02		
		Window Components	1.0		
		Window casing	>9.9		
		ceramic tile walls	-0.02		
		ceiling plaster	5.0		
		Window sill	0.4		
Room 4	ABCD	Walls	-0.1-0.2		
		Baseboard wood	-0.0		
	A	door frame	9.5		wood
	A	door	9.5		wood
	C	door frame	9.5		
	AB	Window Components	1.0		
Room 5	ABCD	Wall	-0.01		Drywall
		Ceiling	0.1		
	A	door	2.9		wood
		Window <del>frame</del> (window) (closet)	>9.9		
Room 6	ABCD	Wall	0		Drywall
		Ceiling	0.2		Drywall
		Window components	0		
	B10	door	0.5-2.5		wood
		Bath Shower by rem L	0		
		Bath drywall by rem L	0		
Room 7	ABCD	Walls	-0.02		Drywall
		Baseboard	-0.02		
		Window components	1.0		
Room 8	ABCD	Walls	-0.1		Drywall
		Ceiling	0.2		Drywall
		Window components	0.3		
		Hall window components + frame	5.9		wood
		Hall door	0.0		wood

\*P=Plaster S=Gypsum Wallboard (sheetrock) L=Lead Containing Alloy (No Coating) M=Metal A=Aluminum W=Wood V=Vinyl



## Appendix G

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### Hazardous Materials Abatement Cost Estimate

### Hazardous Materials Abatement Cost Estimate

A hazardous materials abatement cost estimate is provided below. Unit costs are based on current industry rates and are inclusive of all contractor costs. They do not include costs for design, monitoring, sampling, and other consultant fees.

**Table 5**  
**Estimated Cost for Hazardous Materials Abatement**

MATERIAL	ESTIMATED QUANTITY	UNIT COST	TOTAL COST
Transite Board	50 SF	\$10/SF	\$500
Brick Pattern Linoleum Flooring	500 SF	\$7/SF	\$3,500
Flue Patching Material	5 SF	Lump Sum	\$300
Joint Tape and Compound (Includes Removal of Drywall)	3,600 SF	\$3/SF	\$10,800
Troweled Skim Coat on Drywall (Wall & Ceiling)	1,300 SF	\$5/SF	\$6,500 SF
Skim Coat Wall/Ceiling on Plaster and Drywall	1,500 SF	\$5/SF	\$7,500
Black Sink Undercoat	1 EA	Lump Sum	\$150
Textured Wall Skim on Drywall	1,000 SF	\$5/SF	\$5,000
Exterior Door Caulking	3 EA (75 LF)	\$250/EA	\$750
OSHA Lead Compliance during renovation and demolition work		Lump Sum	\$2,500.00
Potential Disposal of Lead Waste from demolition and disposal of removed components and surfaces		Lump Sum	\$10,000.00
<b>SUBTOTAL</b>			<b>\$47,500.00</b>
<b>(~10%) CONTINGENCY</b>			<b>\$4,750.00</b>
<b>TOTAL</b>			<b>\$52,250.00</b>

D) PUBLIC MEETING PRESENTATION MATERIALS: June 13, 2012



# History is alive and kicking in the heart of Acton!

We want to hear from you!  
Spread the word.

Come join the discussion on the rehabilitation  
of the Asa Parlin House as a vital element  
of Acton's town center.

How can it contribute to meeting the goals  
of the Acton 20/20 Plan?

- Preserve and enhance town character
- Provide more opportunities for community  
gathering and recreation



**Community Workshop - Asa Parlin House**  
**Wednesday, June 13**  
**7:30 pm at Acton Town Hall, Faulkner Room**

Hosted by the Acton Municipal Properties Department, Acton Historical  
Commission, and the Acton Historic District Commission

# Community Workshop - Asa Parlin House

Wednesday, June 13

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## FACT SHEET

### Property acquisition

- Purchased by the Town in 1996 for \$300,000
- Portion of the property used to expand library parking lot
- Used briefly as an office and then for storage
  - No funds spent on building maintenance
- Conditions and reuse study performed in 1998
  - No action taken
- CPA funds (\$20,000) approved unanimously at 2011 Town Meeting for reuse feasibility study



### Building history

- First occupied at current site in 1861
- Portion of the building dates to late 18th/early 19th century
- House may have been moved to the site
- Original structure consisted of one room
- Style - vernacular house with Greek Revival elements

### Cultural history

- Occupied by Asa Parlin from 1870
  - Merchant and descendant of an Acton founding father
- Occupied by Asaph Parlin (son?) in early 1900s
  - Caretaker at Woodlawn Cemetery

### Significance

- Example of an increasingly rare vernacular dwelling in its historic location
- Contributing element to Woodbury Lane and Acton Centre Historic District
- Serves as a buffer along the lane, holding the village character
- Associated with one of Acton's early settlers

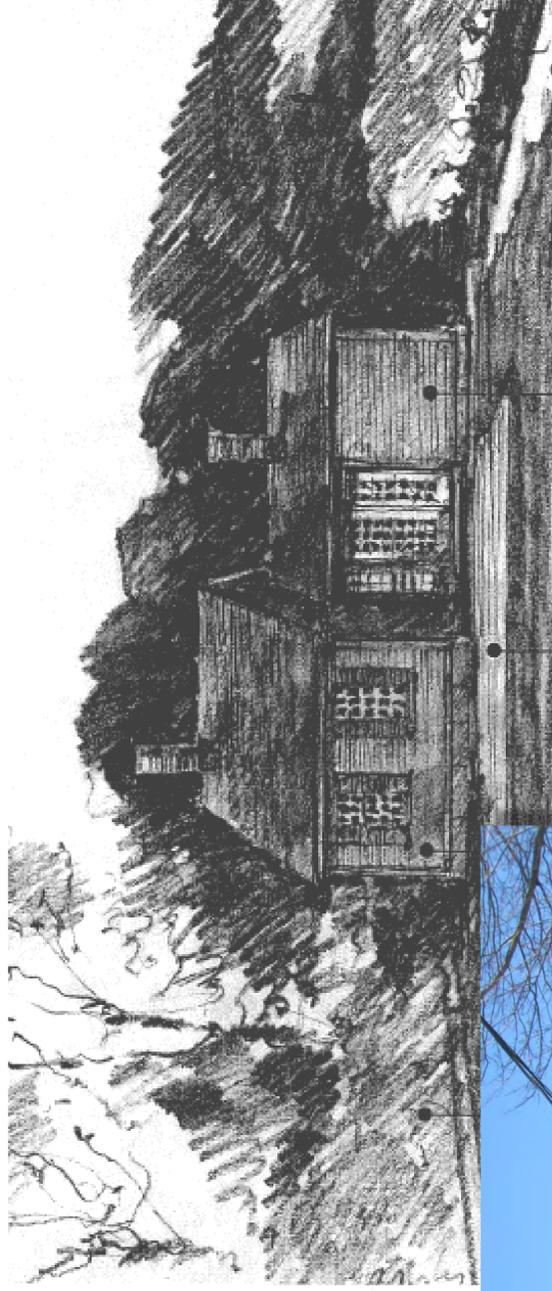
### Disposition options

- Raze
- Relocate
- Rehabilitate - remove 20th century additions and renovate for Town meeting space
- Reuse - explore other alternatives

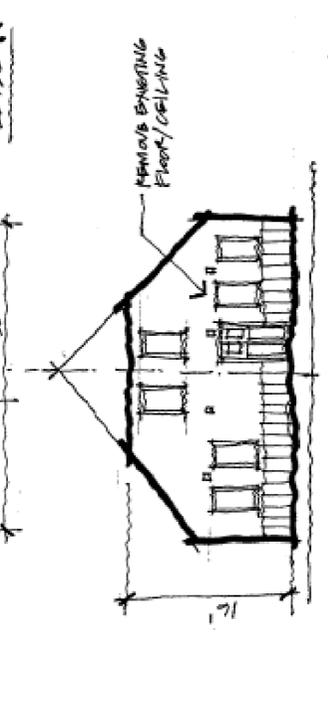
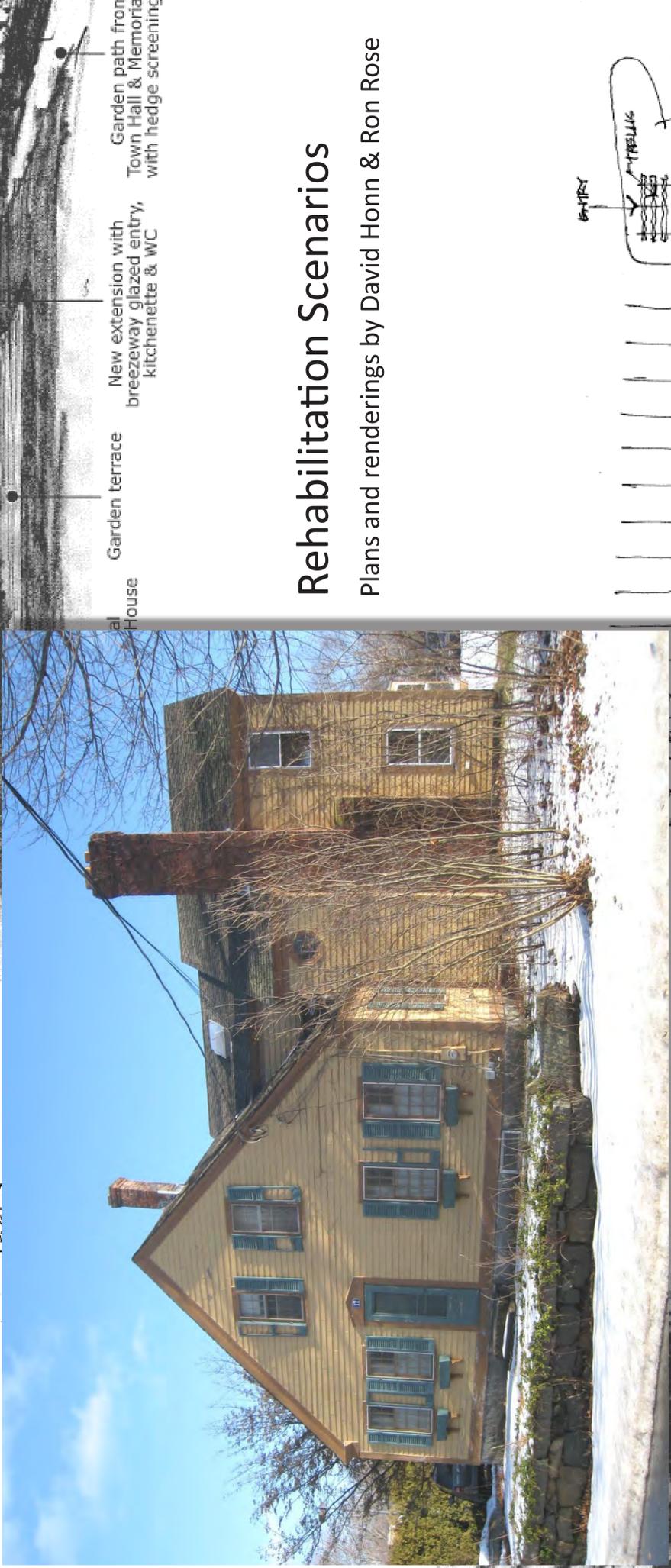
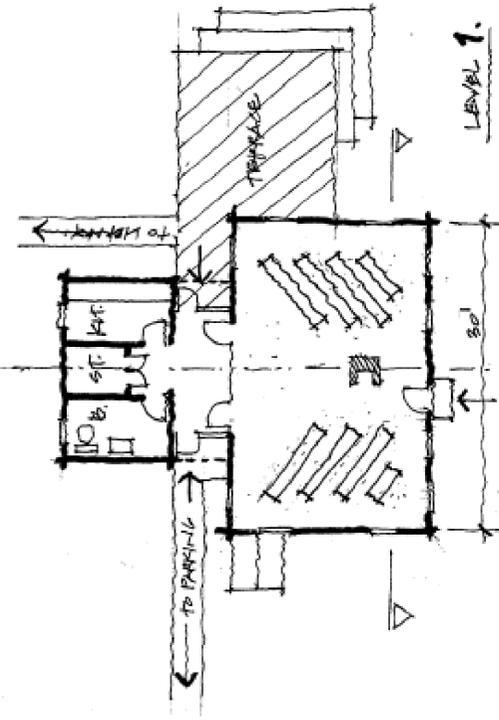
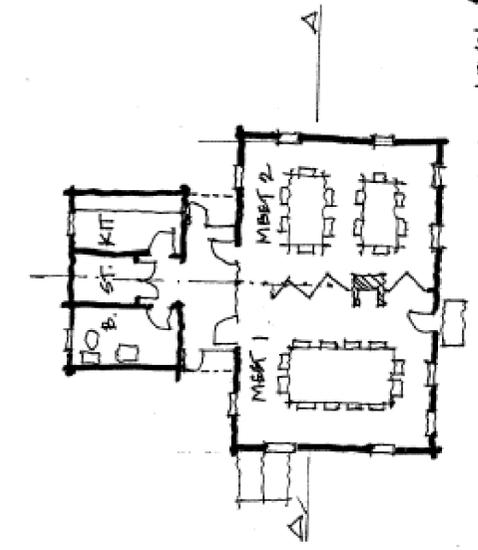
### Next steps

- Conduct conditions assessment and feasibility study
- Present findings/recommendations to CPC
- CPC will determine whether to release balance of funding for demolition of non-historic additions and stabilization of building





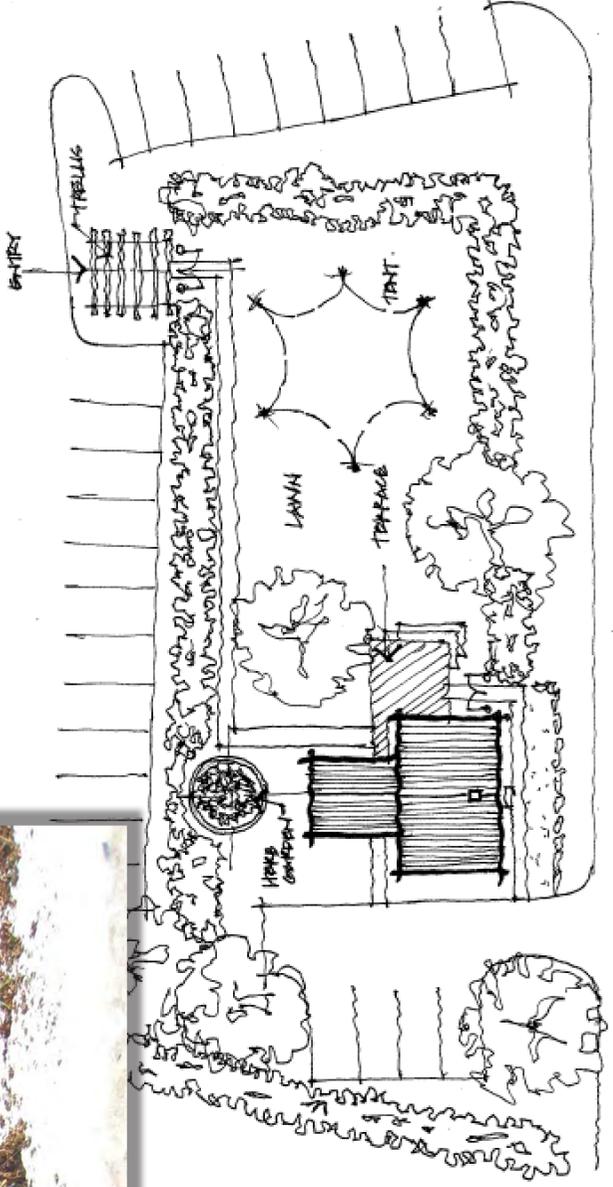
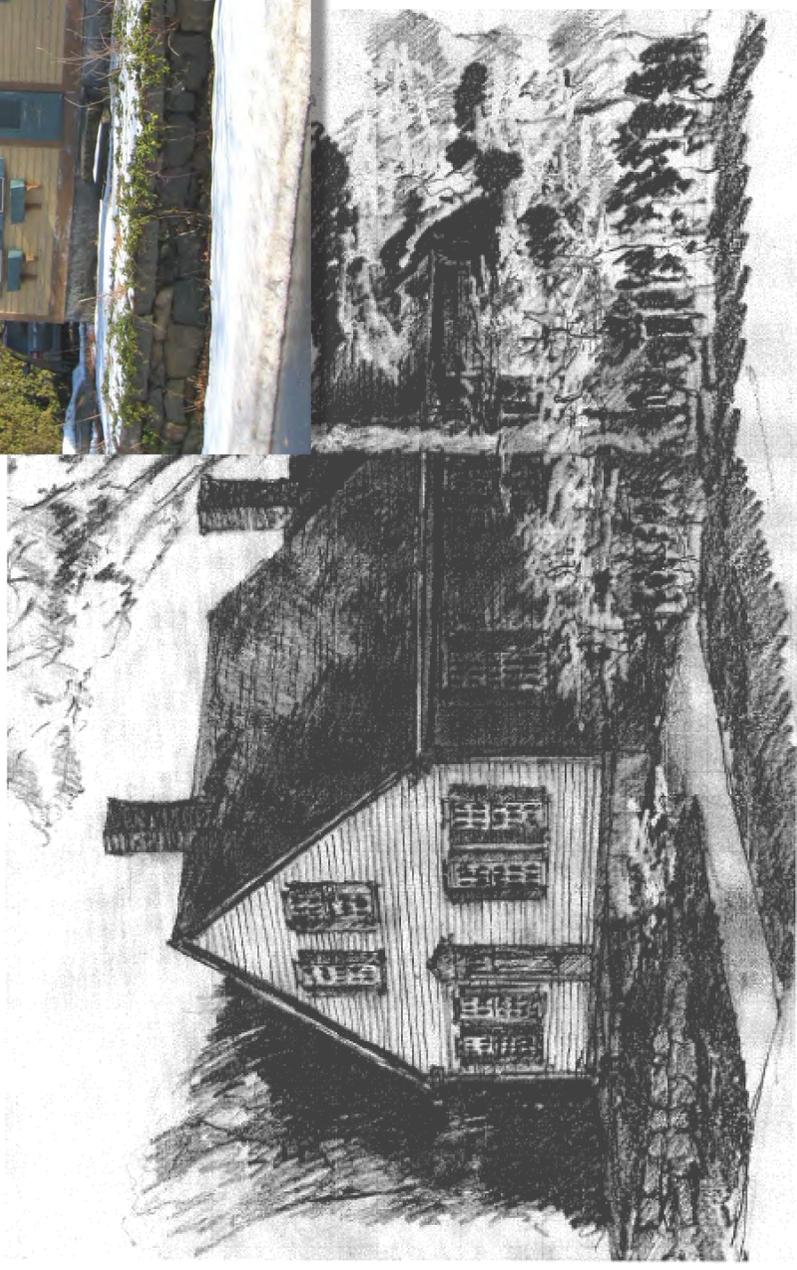
House  
 Garden terrace  
 New extension with breezeway glazed entry, kitchenette & WC  
 Garden path from Town Hall & Memoria with hedge screening



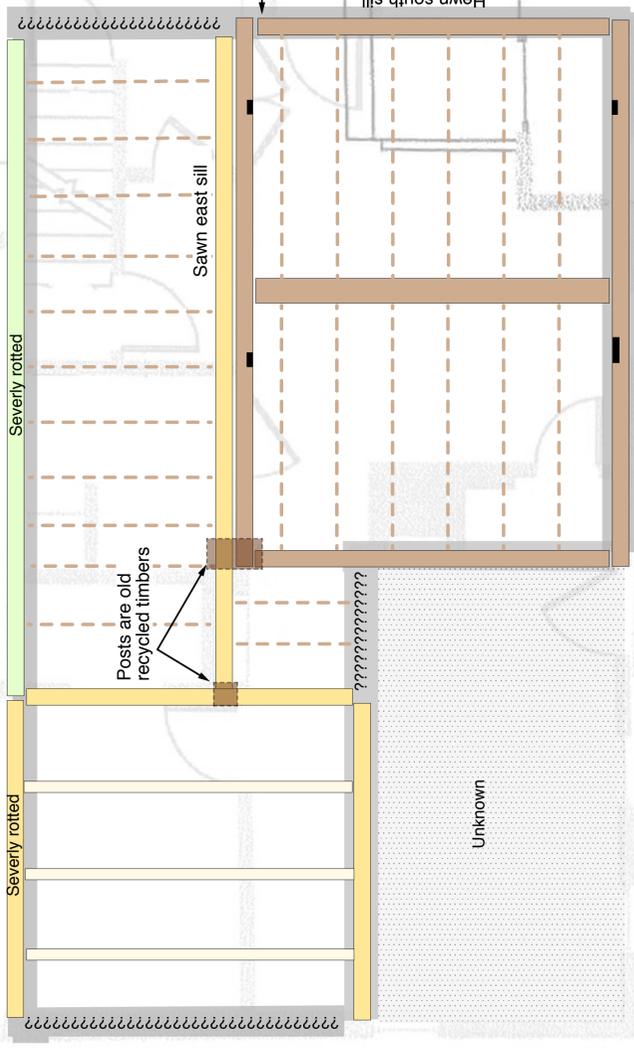
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# Rehabilitation Scenarios

Plans and renderings by David Honn & Ron Rose



WOODBOAT LANE



ASA PARLIN HOUSE - VISIBLE CELLAR FRAMING

Scale: 3/8" = 1'

NOTE: Positions of floor joists are approximate. Modern supplemental framing is not shown.

- Hewn sill or beam - 18th or early 19th Century (mostly pine or hemlock)
- Slash sawn oak 3x4 joist - 18th or early 19th Century
- Slash sawn sill or beam - early to mid 19th Century (pine ?)
- Half round joist - late 18th or early 19th Century (pine ?)
- Circular sawn sill or beam - Mid 19th to 20th century (pine ?)
- Fieldstone foundation
- Unused open mortise
- Wood post
- Not visible
- ?????????

South sill is tenoned into the hewn east sill and does not extend further to the east. This indicates the hewn frame has always been limited to the current room 114. The section of the sill marked with question marks could not be seen.

Photo 3: Detail of south end girt showing two layers of floor joists with the later joist framed into the circular sawn girt to carry the current second floor boards.



Photo 1: NW corner of hewn frame showing hewn oak post and slash sawn corner brace. Top of post is tenoned into the bottom of the south girt but does not have the shouldered haunch that would be normal for this joint in the 18th century (i.e., an English tie joint), suggesting it may date to the early 19th century. The front plate is tenoned into the north end girt, suggesting that the north girt might have once received a principal rafter. If the hewn frame was once a one room free standing structure.

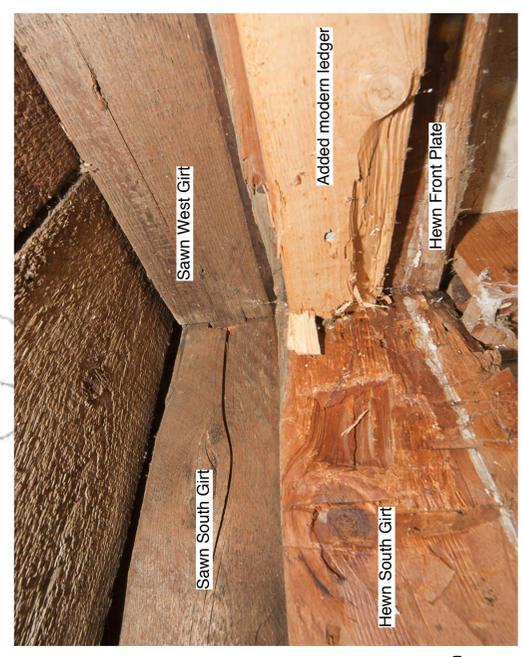
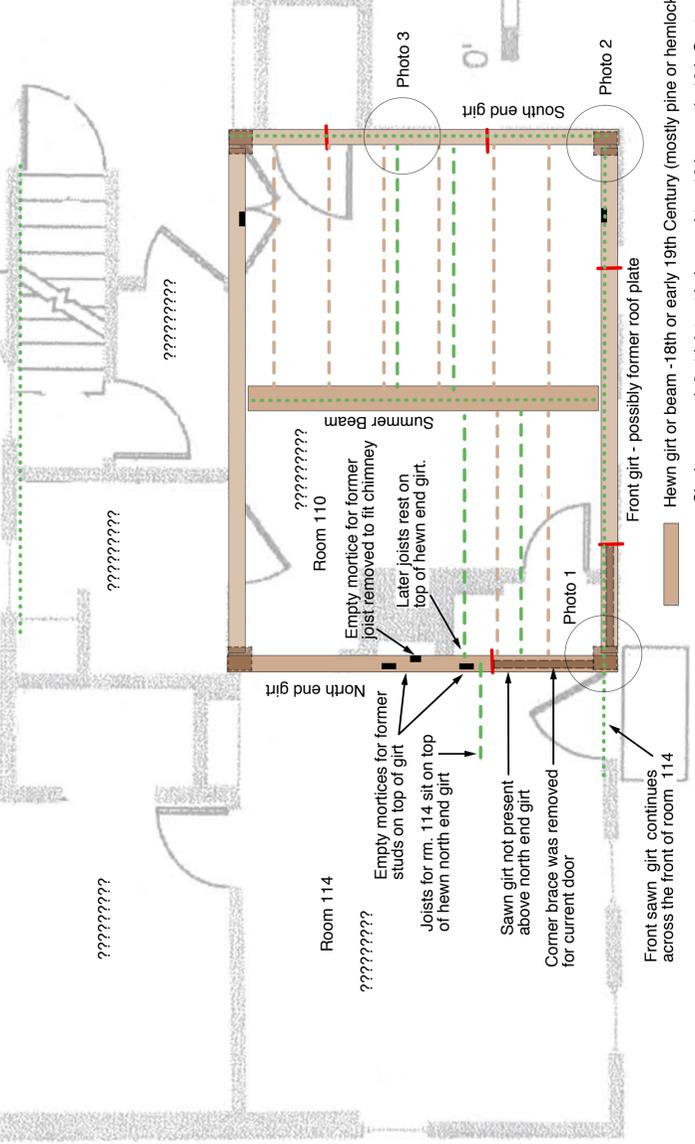


Photo 2: Circular sawn girts set on top of hewn girts at SW corner of room 110. Hewn front plate is framed into the south girt.



ASA PARLIN HOUSE VISIBLE EARLY FIRST FLOOR FRAMING

Scale: 3/8" = 1'

NOTE: Circular sawn 5x5 girts and beams are set directly on top of the hewn frame front and south girts and summer beam and have their own joists to carry the second floor boards and rafters for the south pitch of the roof. These girts were probably installed when room 114 was added to the previous "L" shaped plan to create the current rectangular front block of the house in the second half of the 19th century.

- Hewn girt or beam - 18th or early 19th Century (mostly pine or hemlock)
- Slash sawn oak 3x4 joist set in hewn girts - 18th or early 19th Century
- Slash sawn oak 3x4 corner brace - 18th or early 19th Century
- Pin for corner brace (brace not visible) - 18th or early 19th Century
- Circular sawn girts or beams - Mid 19th to 20th century - probably added with current roof frame (pine ?)
- Sawn joists set in circular sawn girts - Mid 19th to 20th century (pine ?)
- Unused open mortise
- Hewn post below girt - 18th or early 19th Century (oak)
- ?????????
- Not visible

NOTE: Positions of floor joists are approximate. Modern supplemental framing and framing that could not be seen is not shown.

**Asa Parlin House  
Community Workshop  
6.13.12**

**Flip Chart Notes**

Irina

- Preserve later history to retain useable space (do later additions have to go?)
- Art Center (e.g. Concord, Newton, Watertown) could be revenue source; classes, SRs, home schooling
  - 1<sup>st</sup> floor – store, reception, office, studio, other
  - 2<sup>nd</sup> floor – lecture, studio, open space, small class
  - Requires lift or elevator
- Real estate value not equal to value as income
- Existing building is larger than Concord Art Center

Howard Clark (residence abuts Town Center)

- He gets drainage to his property (pond) from the parking lot; anything done at the Parlin House will affect his property
- Remembers that former residents resigned to property becoming parking

Sharon

- Would like parking to relieve pressure at library and town hall
- Often no available parking in lot
- Parlin House property would gain ~ 13 spaces
- 468 Main St. studied – 20 spaces

Lauren Rosenzweig

- Core (HD, HDC) – involve private/volunteers in restoration and maintenance
- Preserve for historic integrity
- Retains feeling of the street, quality of place
- Reconciling costs of preservation/re-use vs. benefits
- Meeting space, adjacent outdoor, street space

Ann Forbes

- Town meeting warrant for \$388k to rehabilitate Parlin House
- CPC approved \$100k – 2 parts: feasibility study and stabilization
- \$300k remaining for rehabilitation project

Ann Chang

- Can't comment until costs are known

Rich Logan

- Does intervention to save the building diminish its integrity to the point of vanishing returns?
- Use money to remediate Howard Clark run-off

Kathryn Acerbo-Bachman

- Part of Acton Center Historic District
- Cannot be demolished without HDC approval with Howard Clark
- Art center has merit
- Meeting space deficiency
- Auxiliary town records storage
- Increase stewardship – take care of the building
- Concern about fire
- Building is in decay, adjacent property value declines without care or decision re disposition

Michaela Moran

- Property contributes to physical neighborhood character
- Contributing resource to Acton Center National Register District
- Contributing to regenerating sense of center as a public space and restoring more intimate scale
- Value is more than the sum of the parts

Mike Gowing

- Not taken with aesthetic design of the existing 20<sup>th</sup> century additions
- Advocate for more meeting space
- Proximity to library and playground, space to gather
- Toddlers – perhaps events for children
- Evenings – 2<sup>nd</sup> use, adults

Victoria

- Acton resident since 1985
- Likes feeling of small town, antiquities – integral to the town
- Nice area, campus, toddlers, patio
- Draw space at town center together

Janet Adachi

- Rationale for \$20k
- Reassurance that building is not collapsing
- Costing issue
- Space needs/study moving forward – authorized by selectmen

Dean Charter

- 4 meeting spaces available at Town Hall, 2 at library (3 with closing wall)
- Public safety – building has 48 person meeting space but has tiered floor
- Senior Center has meeting space, but coordination issues
- Schools – not as desirable due to scheduling, custodial fees; often relegated to classroom spaces
- Fri/Sat nights OK at Town Center for meetings
- Mon/Tues/Wed booked solid
- Private groups, non-profits – largely pot luck when looking for space

- Windsor Building (old fire station) – exterior restored, not interior; could be meeting space for ~50

John (Woodbury Lane resident)

- Need more green space
- Maybe nice gazebo if \$ calculations don't work
- A stopping place at center of Acton

David Honn

- Most generic – let space find its own use with good design attributes

John Quimby (via letter)

- New building, old parts
- 3-season use - minimal infrastructure
- Decreased maintenance cost
- Museum joins town green, library

Doug Tindal

- Is \$400k for 500 SF of space prudent without a defined use?
- Is there a preservation option without rehabilitation?
- CPC state share has decreased 20%

Ron

- Minimize cost by decreasing systems
- Preserve feel and character
- Not sure town of Acton wants to be a landlord, so no rental use

As support adjunct to playground – concern about individuals crossing parking area



D) PUBLIC MEETING PRESENTATION MATERIALS: October 29







Conditions Assessment & Feasibility Study

# The Asa Parlin House

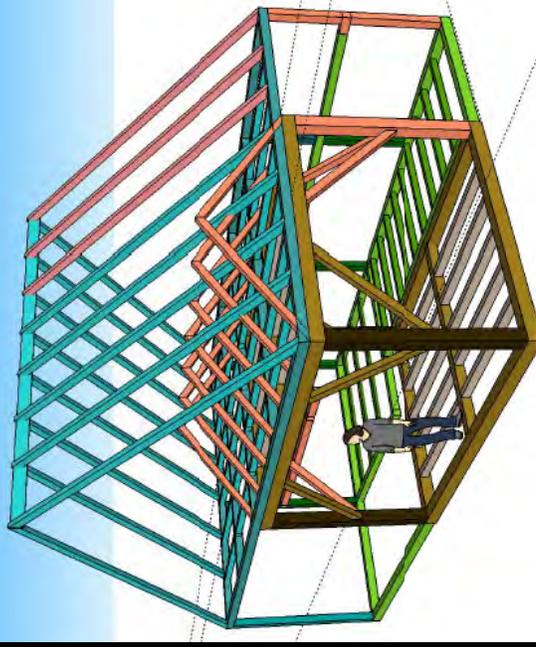
Menders, Torrey & Spencer, Inc.  
Presentation to Acton Town Selectmen  
October 29, 2012

# Project Team



- Menders, Torrey & Spencer, Inc. – architect
- Structures North – structural engineer
- Finch & Rose – historic building consultant
- Fuss & O’Neill EnviroScience – hazardous materials
- JRW Engineering – mechanical engineer
- Shawmut Design & Construction – cost estimator

Past → Future



18<sup>th</sup> C. Timber frame  
1860 Asa Parlin House  
1996 Property acquired by Town – parking gained  
1999 Conditions assessment/feasibility study  
2011 Community Preservation Act grant  
2012 Updated assessment & study

- Should this property – building & site – be preserved?
- How should this property be used?

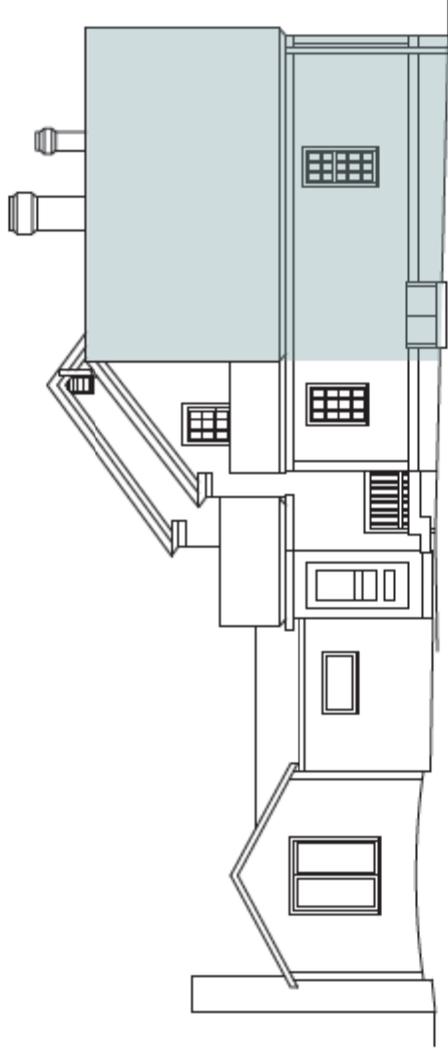
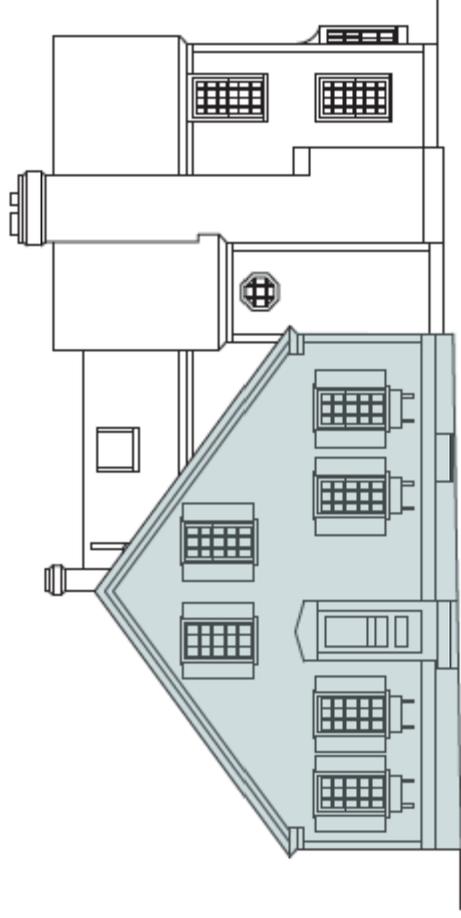
# The Property Today

- Early house with 20<sup>th</sup> c. additions
- Approx. ½ acre site – well maintained
- Building – benign neglect but structurally sound

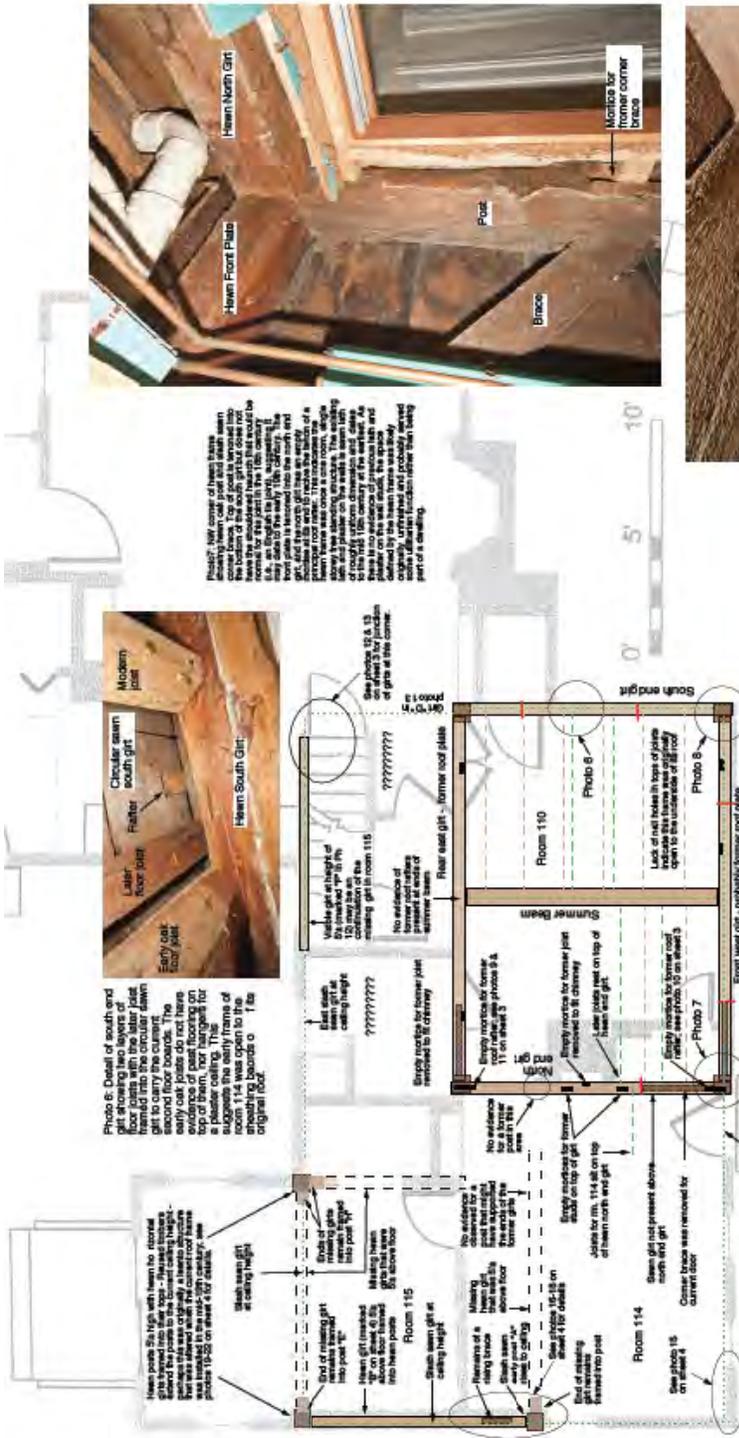
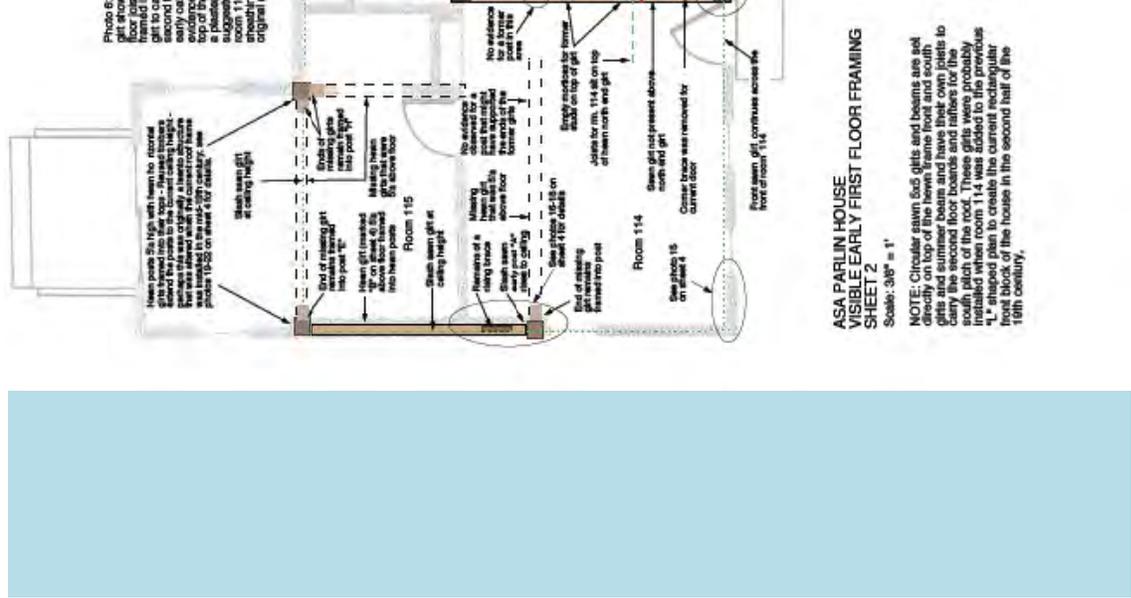


# What does this mean?

Core building  
is worth  
saving:  
20' x 30'  
structure



# Finch & Rose Framing Analysis



- Photo 6: Detail of south end girt showing two layers of floor joists with the later joist to carry the current second floor boards. The early oak joists do not have a plaster ceiling. This suggests the early frame of room 114 was built in the original roof.
- Photo 7: Hemlock girt (15' x 12') on beam 115. No evidence of former roof rafters or summer beams.
- Photo 8: Circular sawn girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).
- Photo 9: Hemlock girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).
- Photo 10: Hemlock girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).
- Photo 11: Hemlock girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).
- Photo 12: Hemlock girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).
- Photo 13: Hemlock girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).
- Photo 14: Hemlock girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).
- Photo 15: Hemlock girt (18' x 12') on beam 115. Laid out with top of joist open to the underside of girt roof frame (joist 7).

**ASA PARLIN HOUSE  
VISIBLE EARLY FIRST FLOOR FRAMING  
SHEET 2**  
Scale: 3/8" = 1'

NOTE: Circular sawn 6x6 girts and beams are set directly on top of the hemlock frame front and south ends. The hemlock girts were probably installed when room 114 was added to the previous 'L' shaped plan to create the current rectangular footprint of the house in the second half of the 19th century.

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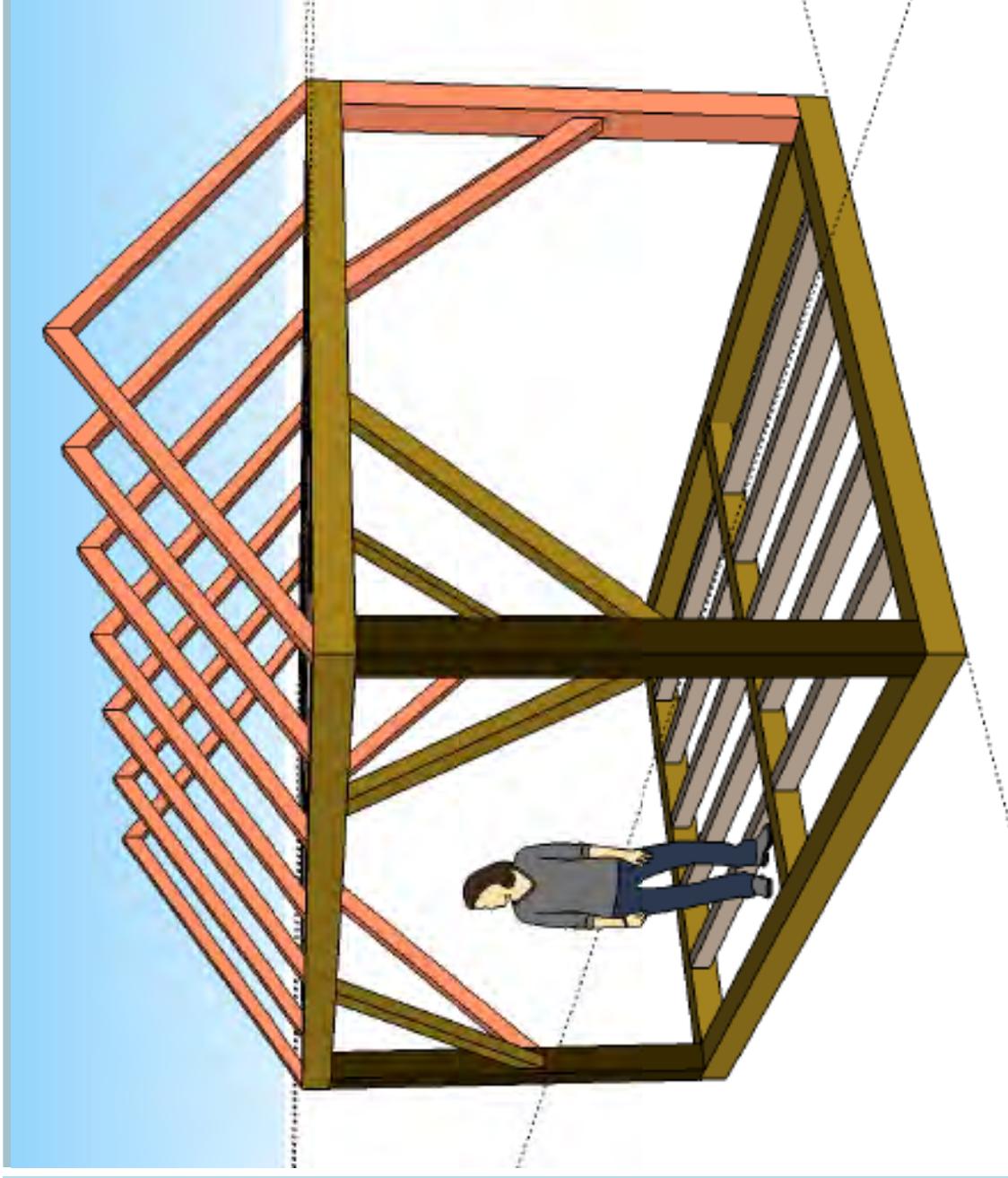
Photo 10: 18' x 12' hemlock girt on beam 115. The girt is set on top of the hemlock frame front and south ends. The hemlock girt was probably installed when room 114 was added to the previous 'L' shaped plan to create the current rectangular footprint of the house in the second half of the 19th century.

Photo 8: Circular sawn girt set on top of hemlock girt at SW corner of room 110. Hemlock girt is laminated into the south girt.

# Building Evolution

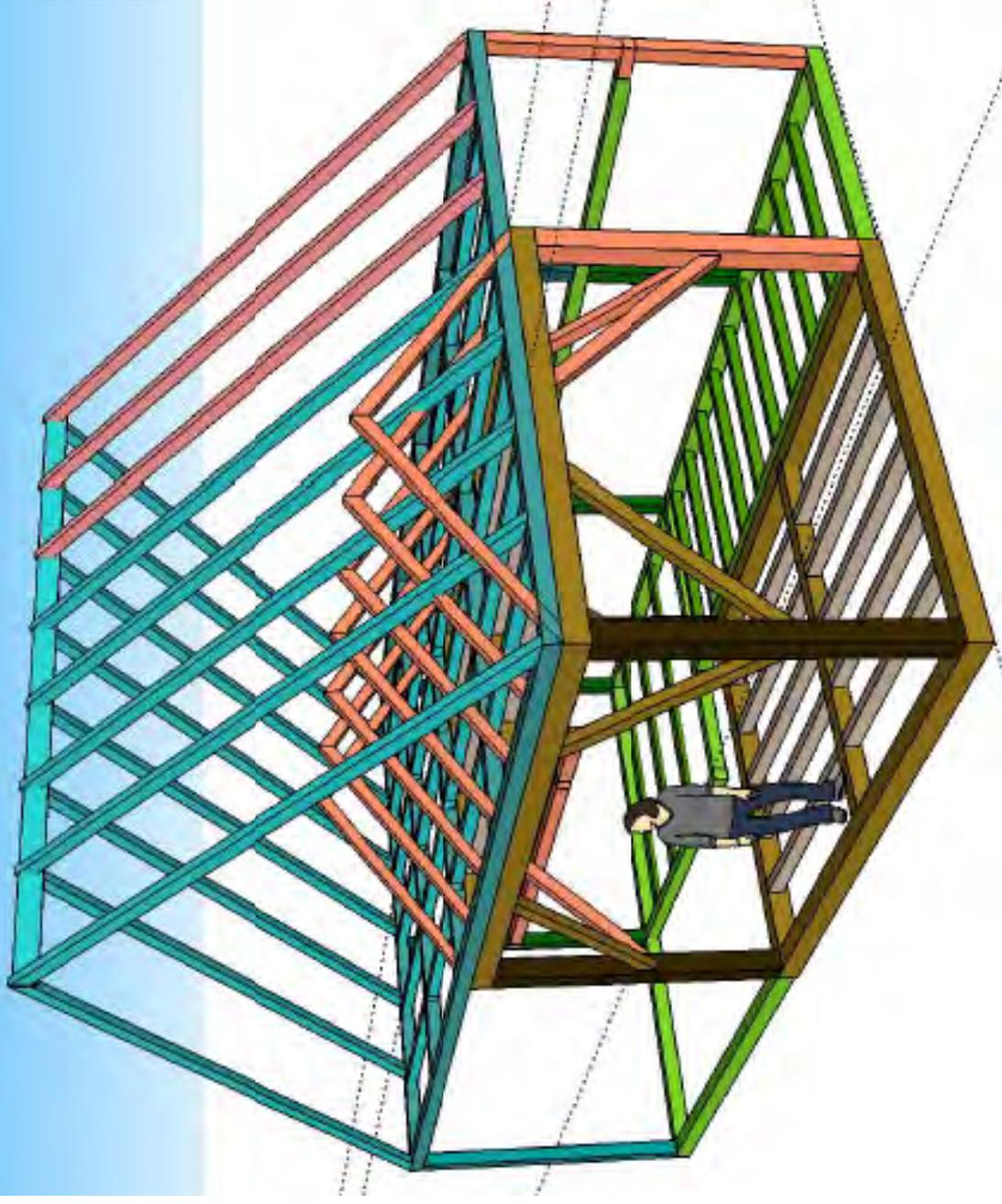
New understanding of significance of 18<sup>th</sup> c. frame:

- Single room with gable roof
- Brown exists, orange is conjectural



# Building Evolution

1860 era –  
core building  
reached  
present  
appearance



# Structural Conditions

- Core building is sound
- Limited structural reinforcement required (sills, etc.)



# Significant Building Elements

- 18<sup>th</sup> c. frame
- Exterior wood cladding, trim & windows
- Foundation



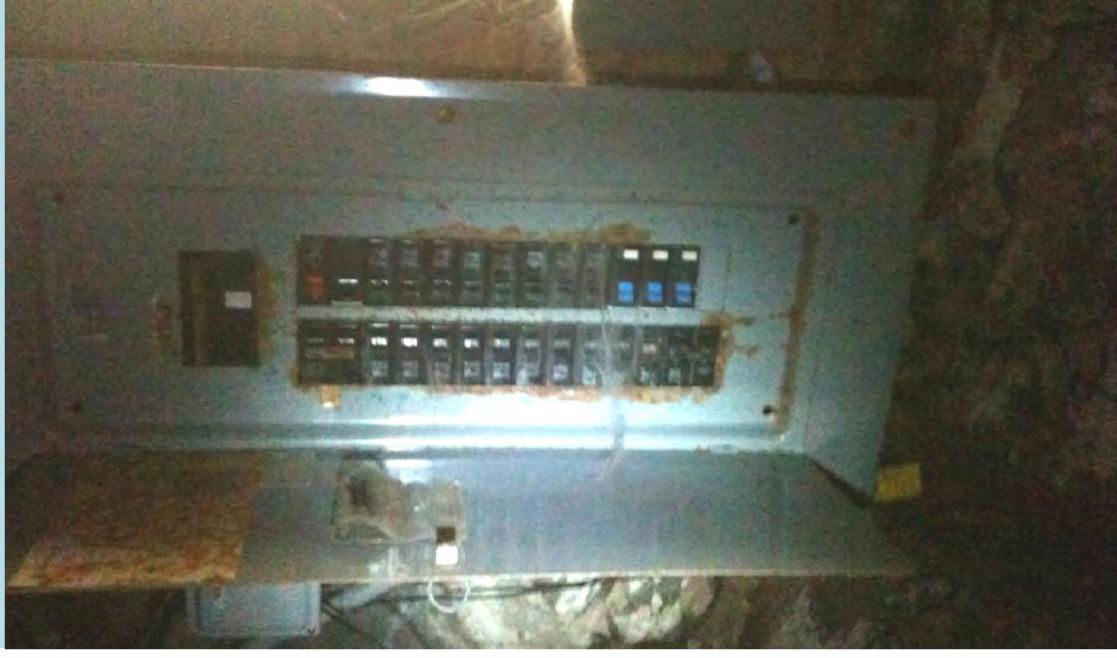
# 20<sup>th</sup> Century Problems

- Asbestos in drywall compound
- Est. \$52,000 to abate
- Abatement required before any intervention



# Mechanical, Electrical, Plumbing

- Drained & inactive since 1996
- 200 amp electrical service
- Plumbing in 20<sup>th</sup> c. additions



# Site & Setting

- Acton Center Historic District
- Residential neighborhood



# Municipal Campus

- Most of 1996 acquisition provided parking for Library, Town Hall & playground
- Opportunity for green space



# Public Meeting June 13, 2012

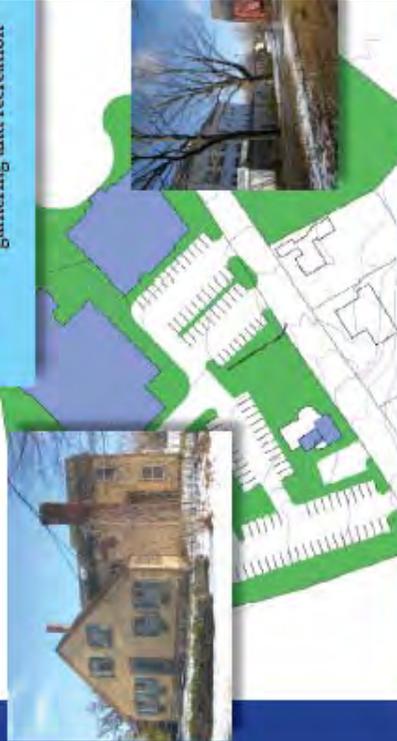
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**FACT SHEET**



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**Cultural history**

- Occupied by A
- Merchant
- Occupied by A
- Caretaker

**Significance**

- Example of an
- Contributing e
- Serves as a bui
- Associated wit

**Disposition options**

- Reuse
- Rehabilitate -
- Reuse - option

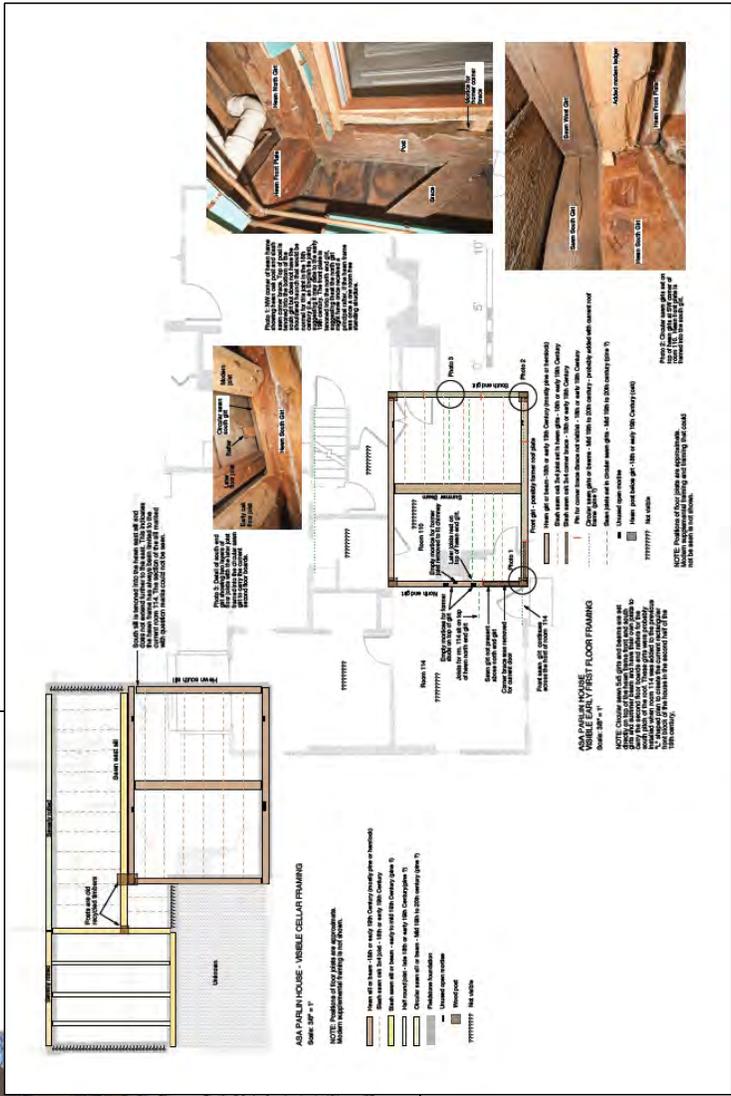
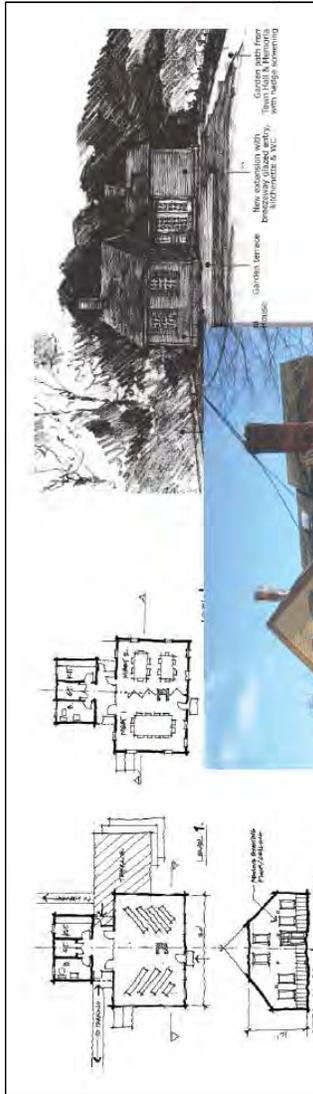
**Next steps**

- Conduct condi
- Present findin
- CPC will deter
- Historic additi

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Hosted by the Acton Municipal Properties Department, Acton Historical Commission, and the Acton Historic District Commission

# Public Meeting June 13, 2012



# What did we learn?

- Removing building for 12 parking spaces not worthwhile trade-off
- Opportunity to think of property as part of municipal campus
- Green space – passive recreation: farmer's markets, plant sales, etc.



# What did we learn?

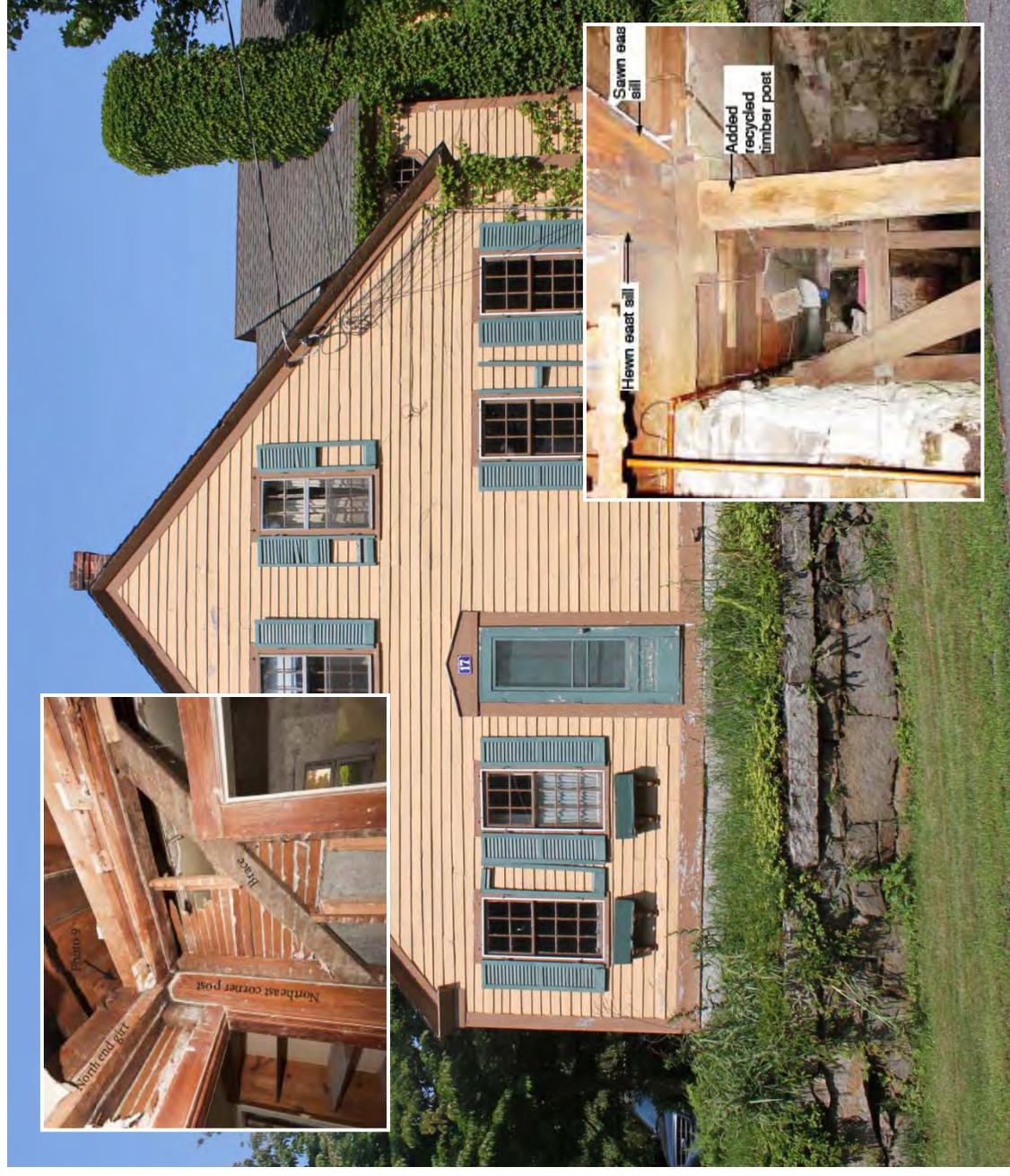
The old house is worth saving

- Important to historic district

- Historic framing

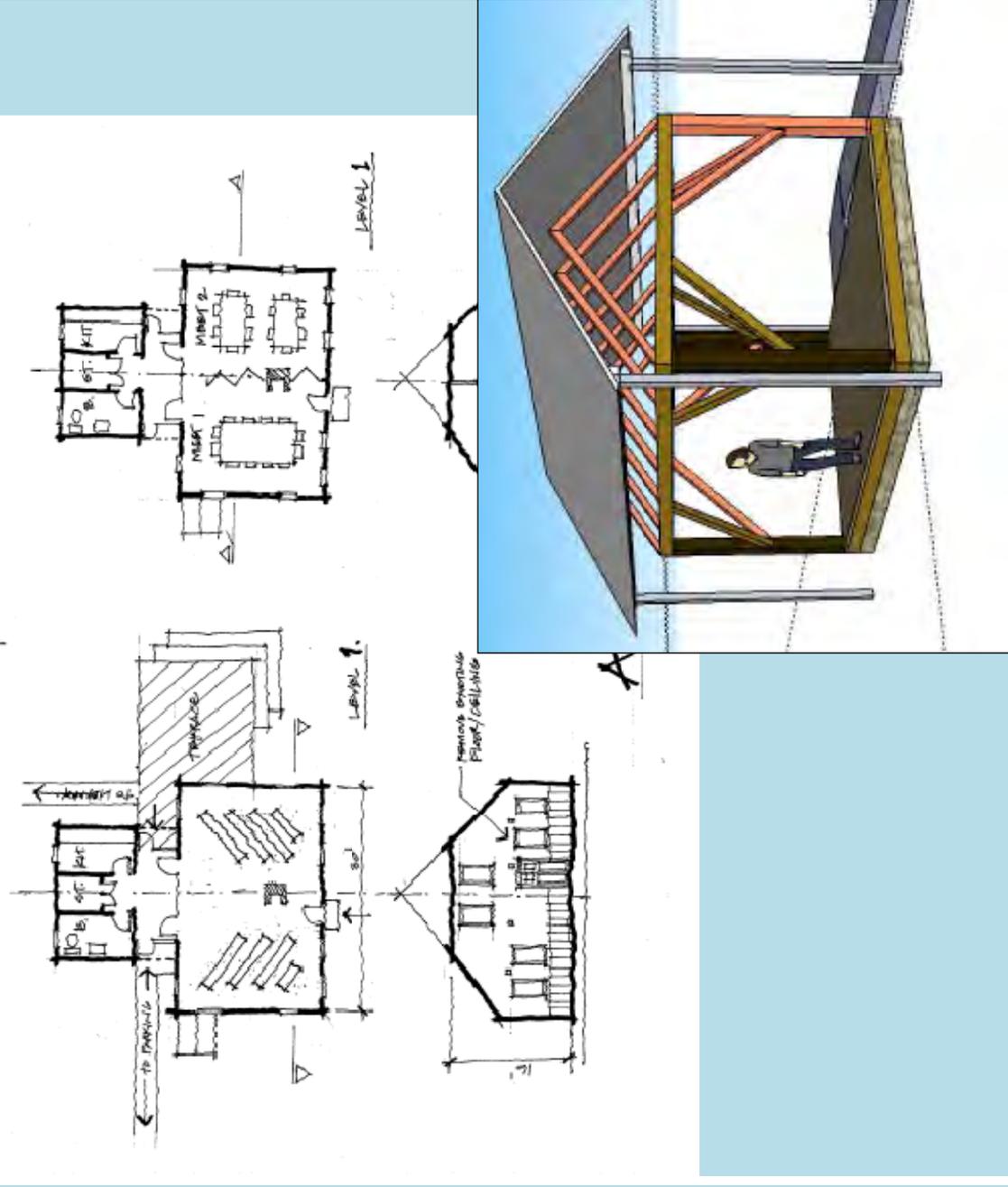
- Maintains residential scale

- Acts as visual buffer

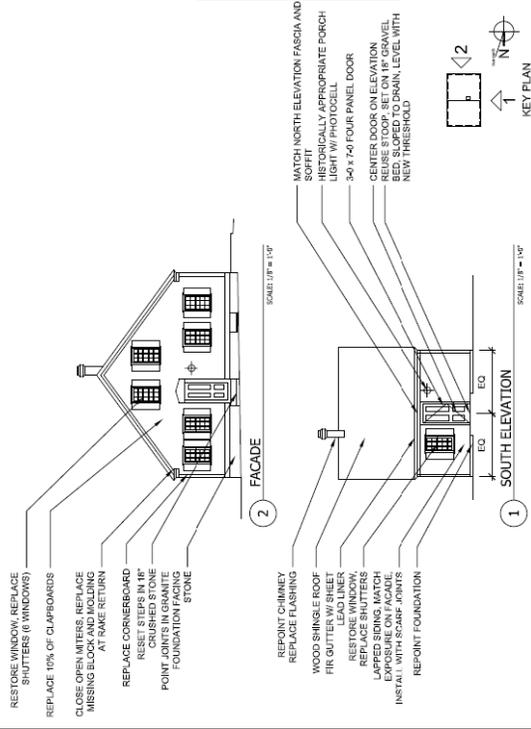


# How should this property be used?

- Meeting space
- Storage
- Exhibit pavilion



# Recommendations



Preserve core building

- Stabilize structure & building envelope
- Remove 20<sup>th</sup> c. additions & hazardous materials

Restore site as green space

Remove hazardous materials \$60,000

Exterior preservation \$285,000

Site work \$70,000

# Benefits



- Prepares house for future renovation for active use
- Provides approx. 20 years of building “life” with minimal maintenance
- Preserves authentic vestige of Acton’s early history
- Retains residential character of Woodbury Lane
- Retains green space at edge of parking lot
- Provides place for community functions
- Remains part of Acton’s municipal campus



Menders, Torrey & Spencer, Inc.  
Presentation to Acton Town Selectmen  
October 29, 2012

E) STUDY COMMITTEE MEETING: September 5, 2012



**September 5, 2012**

**Asa Parlin House Study Committee**

**Present for Acton:** Dean Charter, William Klauer, William Dickinson

**Present for MTS:** Lynne Spencer, Patrick Guthrie

**Meeting Notes**

**1. Building Evolution:**

Patrick presented three diagrams illustrating the evolution of the house over time:

- A. Original:**
    - Single story
    - Gable roof
    - Hand hewn pine/spruce with mortise and tenon joinery
  - B. Next stage:**
    - Addition to the north featuring 5' tall posts – reused by framing, girts at 5' – perhaps part of a saltbox addition
    - Slash sawn and pegged
  - C. Greek Revival era – appearance of the building today**
    - Lighter framing but still timber
    - Chimney appears to be 20th century (Portland cement mortar)
    - 1st recorded occupancy is 1860 by Asa Parlin
- 2. Structural Condition update:**
- Holding steady in slow decline due to lack of maintenance or regular inspection
  - Will not fall down soon – meaning not in immediate hazardous condition per Structures North structural engineers
- 3. Hazardous Materials:**
- Testing shows asbestos in drywell joint taping. Per Enviroscience survey and report.



- Approximate \$50,000 estimate for asbestos abatement.
- Question: given the planned demolition of the 20th c. additions, can this all be treated as contaminated and properly disposed of, combining costs of demo and abatement? Patrick to pursue the answer with Enviroscience.

#### 4. Adaptive use:

Conceptual Alternatives: we began with general discussion about the June 13 public meeting (see notes attached). Most of the discussion focused on the building itself. The site is seen as an amenity for community use and is advocated as a park regardless of the building reuse option adopted.

Having said that, there is pressure on parking in the parking lot shared by Town Hall, Library and play ground. Dean commented that the Selectmen and Town manager are reluctant to tell staff to park across the street at the Fire Station, which has been offered as a way of increasing the availability of public parking spaces. The costs of landscape-park development are NOT included in the opinion of costs described for the building options. Dean commented that much of the landscape work can be accomplished by Town forces.

- A. Option 1: Use for public meeting space (per the CPC grant proposal 2012). Remove 20th c. additions; retain Greek Revival house; add small addition for restrooms and storage. Estimated cost of \$350,000.

PRO:

- Retains the historic house with its early framing intact
- Serves as the 'anchor' on the site, buffering the historic residential neighborhood from the large parking area of the civic campus – Town hall and Library
- Provides needed meeting space

CON:

- Dean observed that Selectmen have called for a space needs master plan as a priority. An RFP has been issued and proposals due 9.7.12. This process is likely to delay/defer discussion of meeting space in Asa Parlin, especially given the high cost of rehab.
- Estimated rehab cost of \$350,000 for approx 600 sq. ft.

**B.** Option 2: For records storage such as that requested by the Historical Commission.

Remove 20th c. additions; retain Greek revival house as shell – no restrooms, only minimal heat and electric. Floor framing reinforcement to public assembly load of 100 lb per sq ft. Estimated cost of \$200,000 for demolition, exterior repairs and structural reinforcement.

PRO:

- Retains the historic house with its early framing intact
- Serves as the ‘anchor’ on the site, buffering the historic residential neighborhood from the large parking area of the civic campus – Town hall and Library
- Provide records storage space
- Preserves the ability for future rehab

CON:

- Estimated rehab cost of \$200,000 for approx 400 sq. ft. of storage
- “Neither fish nor fowl” – “kicking the can down the road”

**C.** Option 3: Artifact – exhibit – pavilion. Remove all cladding and later framing leaving only the earliest timber frame. Enclose the frame in a roofed, open sided pavilion. (Not clear if this was built in situ or moved from another location and re-used on this site. May have been a dwelling or outbuilding.)

PRO:

- Retains the early framing as an artifact
- Serves as the ‘anchor’ on the site, buffering the historic residential neighborhood from the large parking area of the civic campus – Town hall and Library
- Estimated rehab cost of \$100,000 for demolition and pavilion

CON:



- Removes the continuum represented by the Greek Revival structure.
- Impacts the Historic District.

## 5. Finances:

Discussion about funding and timing:

- Next CPA grant deadline is around Nov. 20, 2012. According to informal discussion with the chairman of the CPC, there are no historic preservation projects in the pipeline. With the changed legislation, there will be pressure on CPA funding for recreation. The Historic Preservation 10% minimum of Acton CPA funding is around \$100,000 annually.
  - There is about \$70,000 available from the 2012 grant of \$100,000.
  - With the possible \$100,000 from the 2013 Town Meeting, there would be around \$170,000 CPA funding available for the project.
  - MPPF funding is another prospect for around \$50,000.

## 6. Moving forward:

Consensus of the meeting was to move forward with schematic design for “Option 4 – future Vision of the Asa Parlin property as part of a Campus”. This is a hybrid of Option 2 but without the structural reinforcement to 100 lb per sq. ft. capacity for public assembly. Retain existing electrical service and basic lighting in the renovated structure but without heat or plumbing.

Eliminate the present parking on the site. Town to grade and plant after the demolition of the 20th additions. Less capital cost and preserves option for future rehabilitation.

- Preserve the building as the Greek Revival structure in the Historic District
- Anchors the site
- Develop the grounds for passive recreation and events as part of the civic campus.

## 7. Next Steps:

---

Dean reported that the topographical site survey is almost completed and will pass along to MTS soon.

MTS to develop Option 4 to schematic design level for discussion with the Asa Parlin group, and thence to municipal officials, and eventually cost estimating.

MTS to pursue the hazmat/demolition as it relates to cost.

Meet with the Selectman in mid-late October and the Asa Parlin group one week in advance to review the Option 4 schematic design. Note that no further funds from the present CPC grant can be expended without their authorization.

Assist in preparation of the CPA grant for 2012 in mid November.

Notes by L. Spencer  
September 18, 2012

Attachments:

June 13 public meeting notes  
3d Framing diagrams and shelter concept

**Asa Parlin House  
Community Workshop  
6.13.12**

**Flip Chart Notes**

Irina

- Preserve later history to retain useable space (do later additions have to go?)
- Art Center (e.g. Concord, Newton, Watertown) could be revenue source; classes, SRs, home schooling
  - 1<sup>st</sup> floor – store, reception, office, studio, other
  - 2<sup>nd</sup> floor – lecture, studio, open space, small class
  - Requires lift or elevator
- Real estate value not equal to value as income
- Existing building is larger than Concord Art Center

Howard Clark (residence abuts Town Center)

- He gets drainage to his property (pond) from the parking lot; anything done at the Parlin House will affect his property
- Remembers that former residents resigned to property becoming parking

Sharon

- Would like parking to relieve pressure at library and town hall
- Often no available parking in lot
- Parlin House property would gain ~ 13 spaces
- 468 Main St. studied – 20 spaces

Lauren Rosenzweig

- Core (HD, HDC) – involve private/volunteers in restoration and maintenance
- Preserve for historic integrity
- Retains feeling of the street, quality of place
- Reconciling costs of preservation/re-use vs. benefits
- Meeting space, adjacent outdoor, street space

Ann Forbes

- Town meeting warrant for \$388k to rehabilitate Parlin House
- CPC approved \$100k – 2 parts: feasibility study and stabilization
- \$300k remaining for rehabilitation project

Ann Chang

- Can't comment until costs are known

Rich Logan

- Does intervention to save the building diminish its integrity to the point of vanishing returns?
- Use money to remediate Howard Clark run-off

Kathryn Acerbo-Bachman

- Part of Acton Center Historic District
- Cannot be demolished without HDC approval with Howard Clark
- Art center has merit
- Meeting space deficiency
- Auxiliary town records storage
- Increase stewardship – take care of the building
- Concern about fire
- Building is in decay, adjacent property value declines without care or decision re disposition

Michaela Moran

- Property contributes to physical neighborhood character
- Contributing resource to Acton Center National Register District
- Contributing to regenerating sense of center as a public space and restoring more intimate scale
- Value is more than the sum of the parts

Mike Gowing

- Not taken with aesthetic design of the existing 20<sup>th</sup> century additions
- Advocate for more meeting space
- Proximity to library and playground, space to gather
- Toddlers – perhaps events for children
- Evenings – 2<sup>nd</sup> use, adults

Victoria

- Acton resident since 1985
- Likes feeling of small town, antiquities – integral to the town
- Nice area, campus, toddlers, patio
- Draw space at town center together

Janet Adachi

- Rationale for \$20k
- Reassurance that building is not collapsing
- Costing issue
- Space needs/study moving forward – authorized by selectmen

Dean Charter

- 4 meeting spaces available at Town Hall, 2 at library (3 with closing wall)
- Public safety – building has 48 person meeting space but has tiered floor
- Senior Center has meeting space, but coordination issues
- Schools – not as desirable due to scheduling, custodial fees; often relegated to classroom spaces
- Fri/Sat nights OK at Town Center for meetings
- Mon/Tues/Wed booked solid
- Private groups, non-profits – largely pot luck when looking for space

- Windsor Building (old fire station) – exterior restored, not interior; could be meeting space for ~50

John (Woodbury Lane resident)

- Need more green space
- Maybe nice gazebo if \$ calculations don't work
- A stopping place at center of Acton

David Honn

- Most generic – let space find its own use with good design attributes

John Quimby (via letter)

- New building, old parts
- 3-season use - minimal infrastructure
- Decreased maintenance cost
- Museum joins town green, library

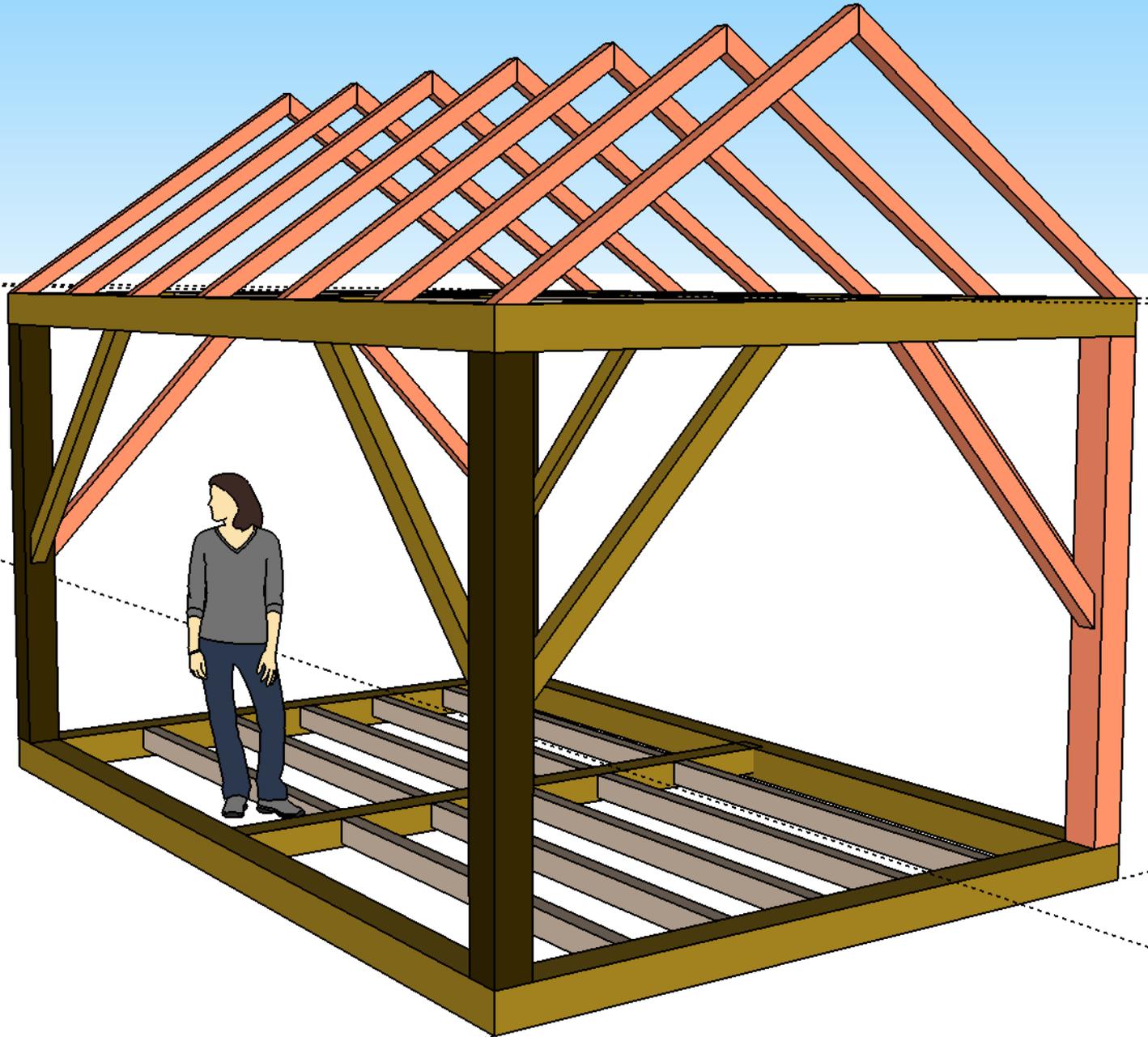
Doug Tindal

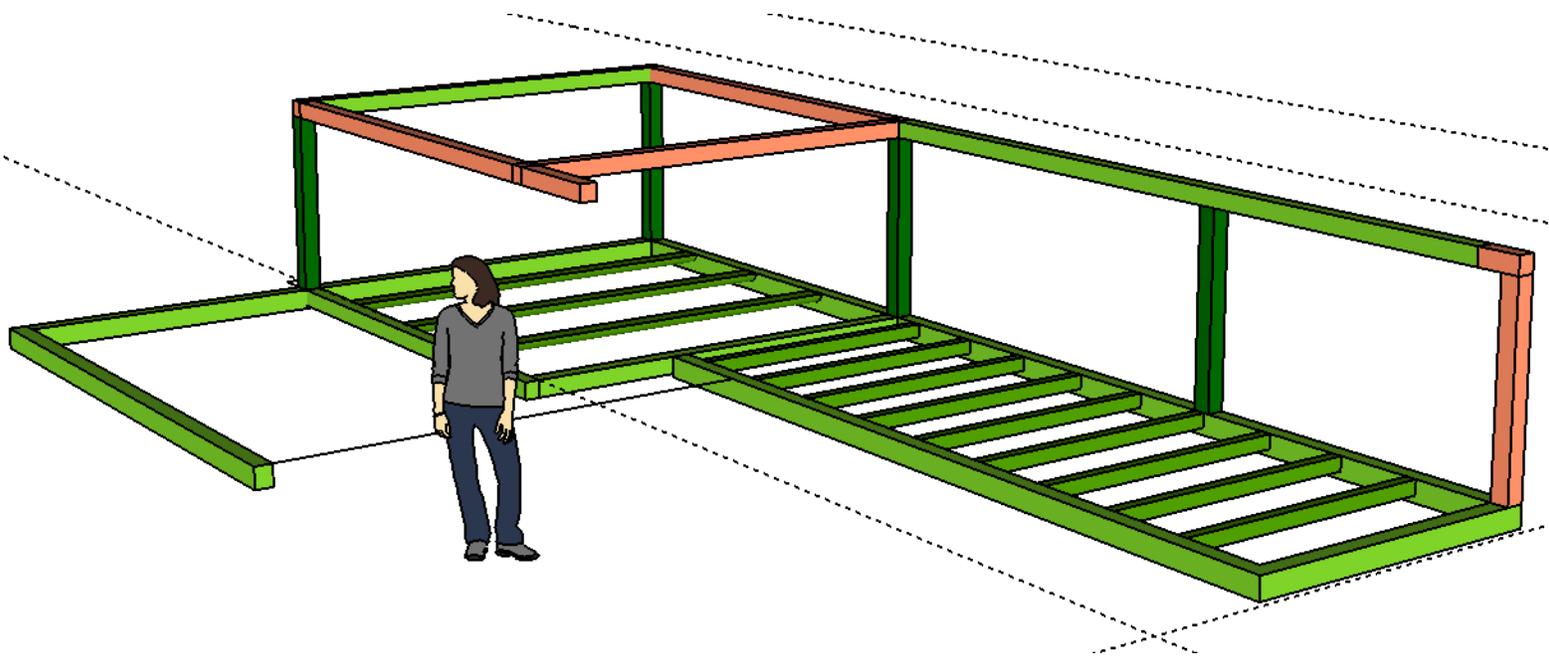
- Is \$400k for 500 SF of space prudent without a defined use?
- Is there a preservation option without rehabilitation?
- CPC state share has decreased 20%

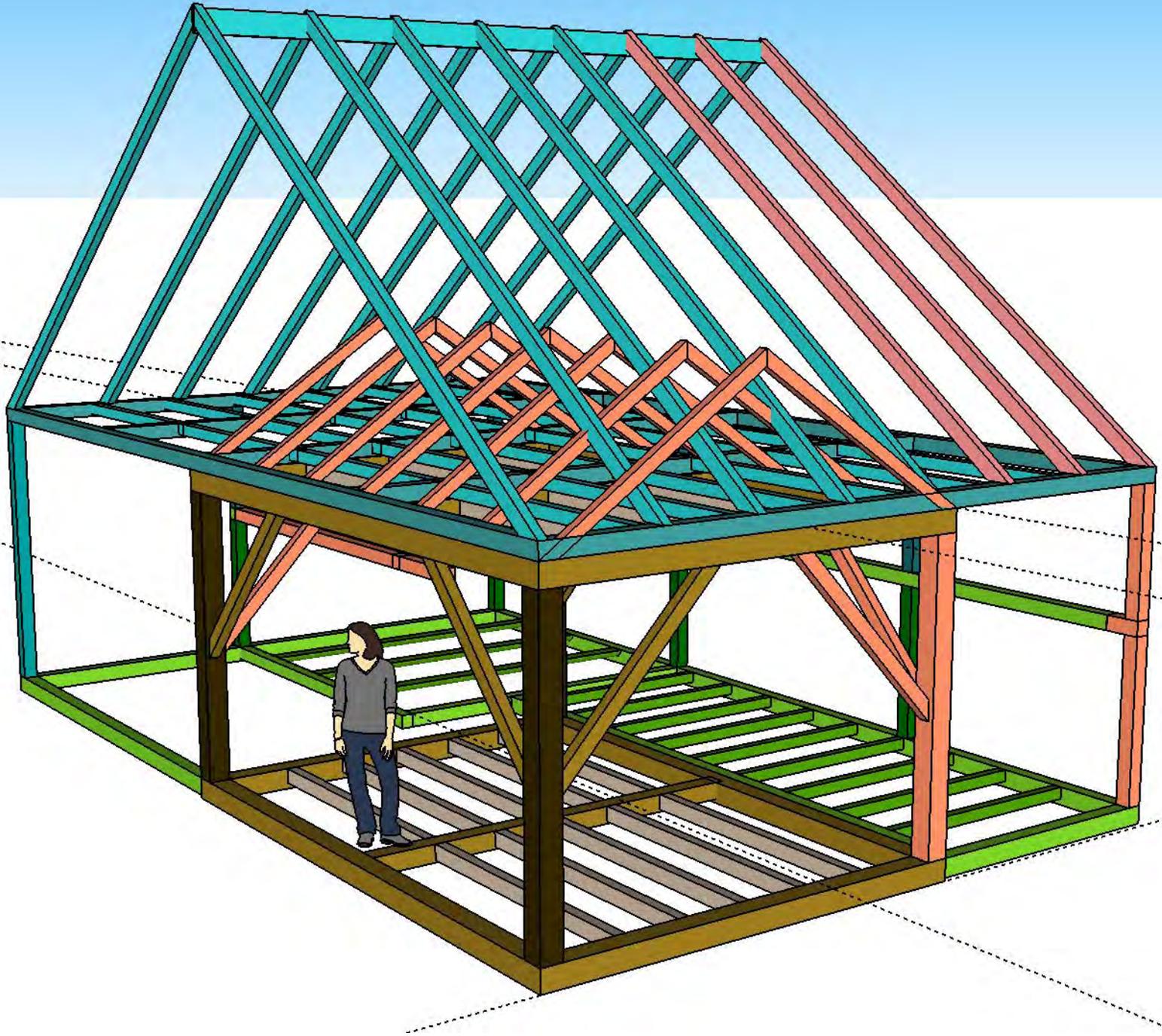
Ron

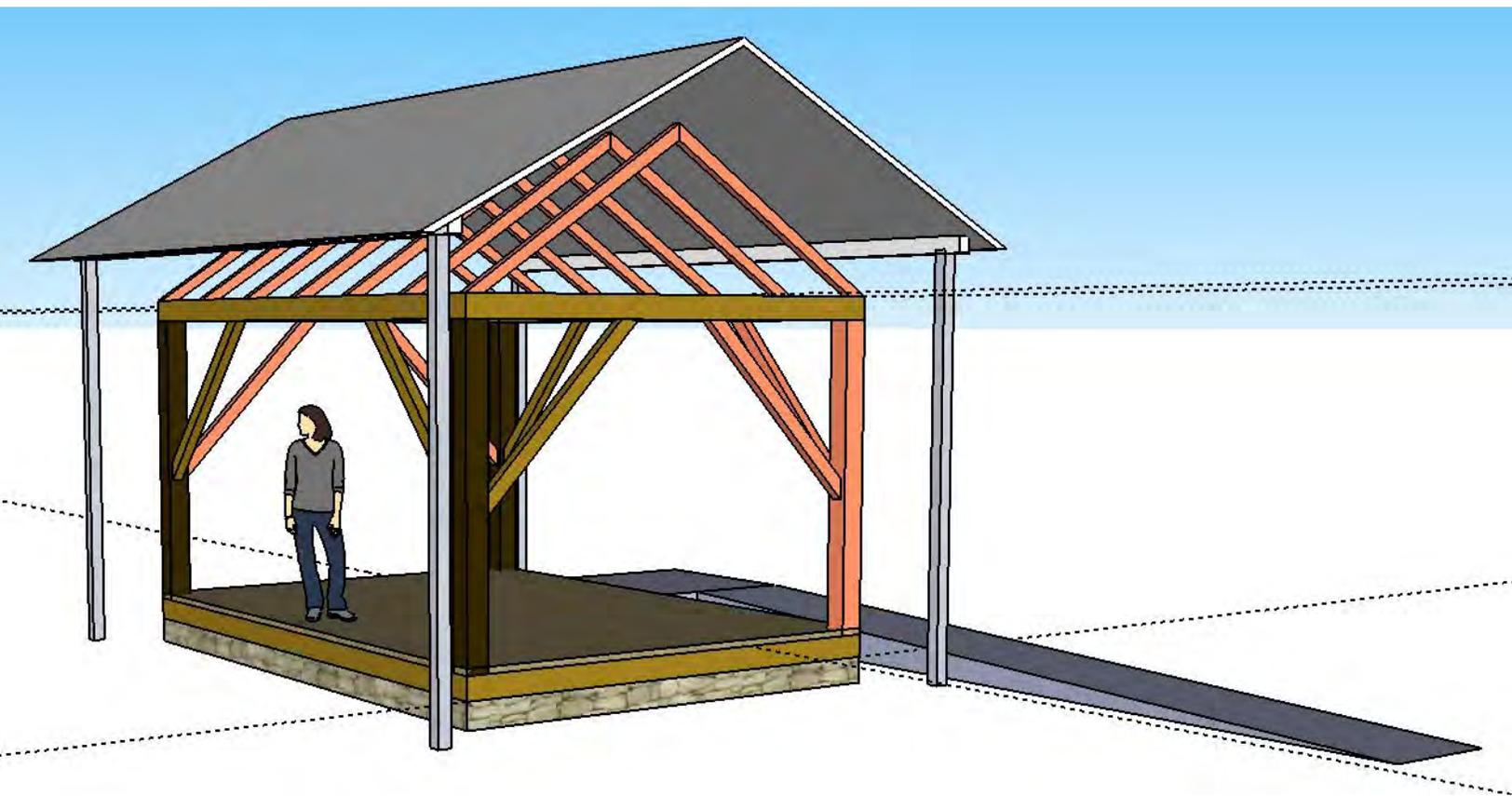
- Minimize cost by decreasing systems
- Preserve feel and character
- Not sure town of Acton wants to be a landlord, so no rental use

As support adjunct to playground – concern about individuals crossing parking area











## F) MASSACHUSETTS HISTORICAL COMMISSION INVENTORY FORM





FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION  
80 BOYLSTON STREET  
BOSTON, MA 02116

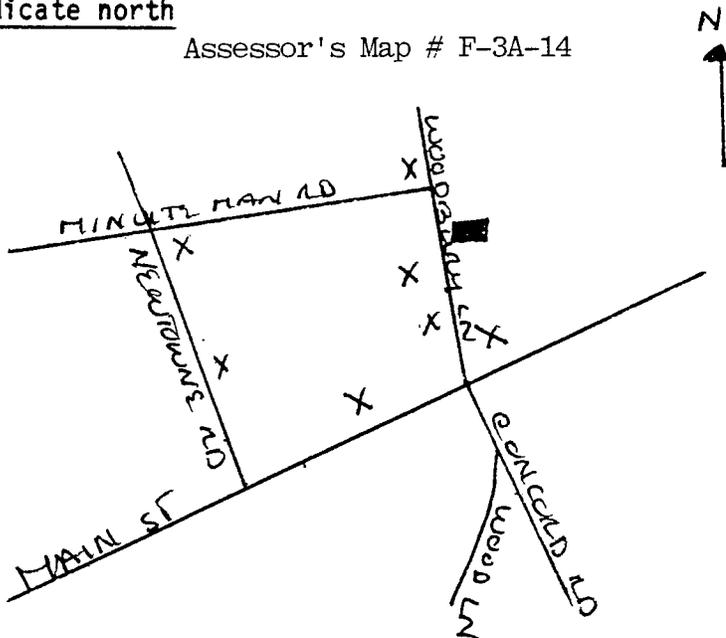
AREA	FORM NO.
B	120



Town ACTON  
 Address 17 Woodbury Lane  
 Historic Name Asa Parlin (1870s)  
 Present single family residential  
 Original residential  
 Description ca. 1860  
 Source map research / NR nomination  
 Style Greek Revival  
 Architect unknown

Sketch map or a map showing property's location in relation to nearest cross streets and/or geographical features. Indicate all buildings between inventoried property and nearest intersection(s). Indicate north

Assessor's Map # F-3A-14



Exterior Wall Fabric wood clapboard  
 Outbuildings none  
 Major Alterations (with dates) rear ells, side ell with brick chimney  
 Condition good  
 Moved no Date n/a  
 Acreage less than one acre  
 Setting Secondary small street behind Town Hall and abutting parking lot on north and south side. Among late 19th century civic and mid 19th century residential buildings.  
 Recorded by Gretchen G. Schuler  
 Organization Acton Historical Commission  
 Date March 1990

UTM REFERENCE \_\_\_\_\_  
 USGS QUADRANGLE \_\_\_\_\_  
 SCALE \_\_\_\_\_

**NATIONAL REGISTER CRITERIA STATEMENT (if applicable)**

LISTED ON THE NATIONAL REGISTER IN 1983  
ACTON CENTRE HISTORIC DISTRICT

**ARCHITECTURAL SIGNIFICANCE** Describe important architectural features and evaluate in terms of other buildings within the community.

SEE CONTINUATION SHEET

**HISTORICAL SIGNIFICANCE** Explain the role owners played in local or state history and how the building relates to the development of the community.

Acton Centre, once known as Acton Village, developed as the civic and institutional center of the large sprawling town which has several 19th century village centers. Acton Centre took on its suburban institutional form around an elongated Common from 1806 when the Second Meeting House was built and several local citizens bought surrounding farms and laid out house lots and built an hotel and some commercial buildings around the Common. The only industrial site was a shoe factory (no longer extant) opposite the Common. Most Acton industrial properties were located in South and West Acton due to the water power and location of the railroad in 1844 both of which bypassed Acton Centre. Subsequent development included the Evangelical Church, the Town Hall replacing the Second Meeting House, and finally the Library as well as many mid-19th century Greek Revival houses for artisans and professionals. Acton Centre is the approximate geographic center of Acton and appropriately remains the civic center.

SEE CONTINUATION SHEET

**BIBLIOGRAPHY and/or REFERENCES**

Atlas / Birdseye / Maps: 1871, 1875, 1889, 1892.  
Phalen, History of the Town of Acton, 1954.  
National Register Nomination, MHC, 1983.  
Vital Records for Acton.

INVENTORY FORM CONTINUATION SHEET

MASSACHUSETTS HISTORICAL COMMISSION  
Office of the Secretary, Boston

Community: ACTON	Form No: B-120
Property Name: 17 Woodbury Lane	

Indicate each item on inventory form which is being continued below.

ARCHITECTURAL DESCRIPTION - 17 WOODBURY LANE

The proportions of the wide gable front dwelling with large roof expanse on a granite foundation are reminiscent of an early Cape Cod dwelling; however, the historical evidence does not substantiate the existence of this 1 1/2 story, 5-bay cottage much before 1860. Built on a granite block foundation the building is clad in clapboards and has a brown asphalt shingle roof that is a good representation of wood shingles. There is a late 20th century 2-story side ell with a large tapered exterior brick chimney facing Woodbury Lane. The gable front entrance door is not centrally located; however, it is a replacement door with a plain surround and a slightly pedimented lintel and may have been moved off center at some time in the past. The windows have 6/9 sash with shutters. Frames are plain as is other trim such as the narrow corner boards, the narrow cornice with little overhang and the short returns. The chimney is located near the front of the gable facade at the ridge.

The 2-story side ell has a projecting pavilion in the corner of the L-plan in which there is a multi-light octagonal window. Sash are 12/12 with shutters. On the north side the large granite block foundation is well viewed. There is one 6/9 sashed window with shutters. A small 1-story rear ell on a parged foundation and with a 6/6 window with shutters is partially visible on the north side. On the south side, from the Town Hall parking lot, the gable end of the ell displays multi-light oriel with 4/4 on sides. There are two 12/12 second story windows with shutters. Rear ells are partially visible with 1-story greenhouse windows and skylights.

HISTORICAL SIGNIFICANCE - 17 WOODBURY (continued)

Named for the Rev. James Woodbury (1803-1861), first minister of the Evangelical Church from 1832 to 1852, the short dead end road was formerly known as Monument Street for the Davis Monument which was at the head of the short road. In the early 1900s it was known as Tuttle Avenue before becoming Woodbury Avenue after the Rev. Woodbury who lived at the north end of the road and was instrumental in having the Davis Monument built on the Common.

From 1870 the house was occupied by Asa Parlin, descendant of one of the early settlers. Parlin is listed in the 1883 Directory as a merchant. In the early 1900s Asaph Parlin lived here (then known as Tuttle Road). He worked as a caretaker at the Woodlawn Cemetery.

Staple to Inventory form at bottom



G) REUSE FEASIBILITY STUDY  
TURK, TRACEY & LARRY ARCHITECTS, 1999



Reuse Feasibility Study  
for 17 Woodbury Lane

Acton, ME

November 20, 1998 DRAFT  
*Revised January 7, 1999*



TURK TRACEY & LARRY ARCHITECTS, LLC

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ARCHITECTURE / HISTORIC PRESERVATION

110 EXCHANGE, PORTLAND, MAINE 04101  
TEL: 207.761.9662 FAX: 207.761.9696 E-MAIL: TTLARCH@AOL.COM



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## APPENDIX

Measured Drawings of Existing Structure  
Architectural Assessment Tables  
Structural Engineer's Report  
MEP Engineer's Report  
Hazardous Materials Report

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LIST OF ILLUSTRATIONS

*To be completed*

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## GLOSSARY OF TERMS

alligatoring - referring to paint that dries too fast and cracks in all directions appearing like the skin of an alligator.

bay - a major spatial division of a building marked off by vertical or transverse supports.

buttress - an external support built to stabilize a structure by opposing its outward thrusts, especially a projecting support built into or against the outside of a masonry wall.

cladding - a protective cover, referring to the exposed surface of an exterior wall on a building.

conservation - action taken to prevent decay and preserve the historic significance of a building.

consolidation - the physical addition or application of adhesive or supportive materials into the actual fabric, in order to ensure its continued durability of the surfaces or structural integrity.

coping stones - a stone used as a protective cap or course to an exterior wall, usually sloped or curved on top to shed water.

corrosion - the gradual deterioration of metal by chemical action, as when exposed to weather, moisture, or other corroding agents.

deteriorated - to grow worse in quality or state.

dutchman - a piece of material spliced into an element comprised of the same material where a section has deteriorated or has been removed.

fabric - referring to the building materials and finishes.

flashing - pieces of sheet metal or other thin, impervious material installed to prevent the passage of water into a structure from an angle or joint.

frieze - a decorative band, as one along the top of an interior wall, immediately below the cornice, or a sculptured one in a string course on an outside wall.

gable wall - a wall bearing or crowned by a gable.

meeting rail - the rail of each sash in a double-hung window that meets at the rail of the other when the window is closed.

patch - to mend, cover, or fill up an opening, a hole or weak spot according to recognized preservation methods.

point - to fill and finish the surface of a masonry joint with mortar after the masonry has been laid, either to finish the joint or to repair a defective joint.

ponding - in a building, referring to a standing body of water usually due to poor drainage.

pressure treated - referring to wood impregnated with chemicals applied under pressure to increase its resistance to decay and insect infestation.

rafter tail - the lower exposed end of a rafter that overhangs a wall.

repair - when referring to historic materials, the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading according to recognized preservation methods to maintain architectural character and historic fabric.

restoration - in a building, returning to its appearance at a particular time in history. Usually the original appearance when construction was completed.

SHPO - abbreviation for State Historic Preservation Officer

spalling - the chipping or scaling of a hardened concrete or masonry surface usually caused by freeze-thaw cycles.

stabilization - to prevent or slow down further deterioration. Usually a temporary measure.

substrate - any material that serves as a base or foundation.

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## 1.0 INTRODUCTION

The town of Acton retained Turk Tracey & Larry Architects, LLC in September 1998 to prepare a feasibility study for the reuse of 17 Woodbury Lane. The house is a contributing resource within the Acton Centre Historic District, which is listed on the National Register of Historic Places. The Town purchased the property in 1996 so that a portion of the land could be used to expand the Acton Memorial Library's parking lot. The library was in the process of completing a large expansion. Prior to the Town's purchase, the house had been a private residence and the only information available on previous repairs and alterations is what was recorded in the town's records located in the Building Department. Other information was obtained through the Historic Commission and the Historical Society.

No comprehensive surveys or studies of the house have been completed and few records of maintenance and repairs have been located. This feasibility study contains an assessment of the current architectural, structural, mechanical, electrical and plumbing systems, as well as a hazardous materials review. The hazardous materials review was completed as reference only for this study and the Town may need to do further investigations of hazardous materials prior to completing any work on the house. In addition to the assessment of the existing building systems, measured drawings have been prepared and four options along with associated costs developed for possible reuse of the property. These options include mothballing the house, demolition of the structure and landscaping the existing site, relocating the house to another property within the historic district and rehabilitating the existing house for use as community meeting space or additional Town Hall use. Because the house is a contributing resource to the Historic District, Turk Tracey & Larry Architects, LLC recommend that all efforts be made not to demolish the house.

This study has been prepared solely for the Town of Acton's use and has been prepared based on the requirements set forth by them in their Request for Proposals 8/6/98-648 and subsequent conversations. The report is not to be used by any other party and if it is, Turk Tracey & Larry Architects, LLC cannot be held accountable for any information contained within the report.

### PROJECT TEAM

#### Architect

Turk Tracey & Larry Architects, LLC  
110 Exchange Street  
Portland, ME 04102

Tobin N. Tracey, AIA, Principal in Charge  
John Turk  
Julie Larry

#### Structural Engineer

Ocmulgee Associates, Inc.  
317 High Street  
Ipswich, MA 01938

Wayne King, Principal in Charge

**Mechanical/Electrical/Structural Engineer**

Syska & Hennessy - New England, Inc.  
One Broadway  
Cambridge, MA 02142

Walt Henry, Principal in Charge

**Hazardous Materials**

Levine Fricke Recon  
194 Forbes Road  
Braintree, MA 02184

Francisco Rodrigues  
Paul Hoffman, Project Manager

**Cost Estimator**

Daedalus Projects, Inc.  
112 south Street  
Boston, MA 02111

Del Williamson, Estimator

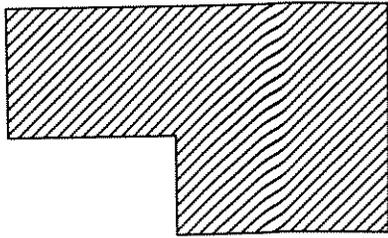
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## 2.0 HISTORICAL BACKGROUND

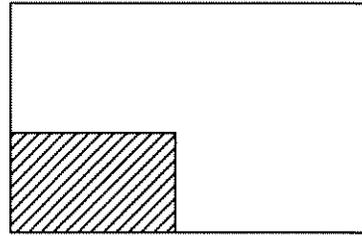
The house at 17 Woodbury Lane is located on a relatively flat site at the edge of the Acton Centre Historic District. The facade of the house faces east and sits back from the road approximately twenty feet. The original structure is characteristic of an early-nineteenth-century cottage and exhibits elements of the Greek Revival. The later additions have been respectful of the original structure in scale and detail. Records indicate that the house was first occupied in early 1861 however, the structure of the present house suggests that portions were constructed earlier than that date and the house might have been moved to the site. No records have been found that indicate who the builder was, but Asaph Parlin is listed as the first occupant in 1861.

Based on a review of the wood framing and foundation, the original house appears to have been constructed as one room with an ell in the late eighteenth or early nineteenth century (the ell may have been a later addition.) This is the house that would have been moved to the site in 1861 if it were not constructed there originally. The entrance to the house may have been on the south side facing the road that originally ran behind the present day Town Hall. The northwest corner of the house appears to have been added soon after, possibly the 1870s or 1880s, creating a rectangular plan. The northwest room (Rm. 114) of the house is not timber framed like the southwest (Rm. 110) and the roof sheathing on the north slope is milled dimensioned lumber, unlike the south slope that is not evenly dimensioned and still contains bark on the edges. The next expansion to the house appears to have occurred in the late 1940s or 1950s creating an ell with an attached garage off of the southeast corner of the house. This is based on sketches from 1925, a site survey from 1945 and building permit records from 1967. The final alteration to the house occurred in 1975 when a two-story addition was attached to the south side.

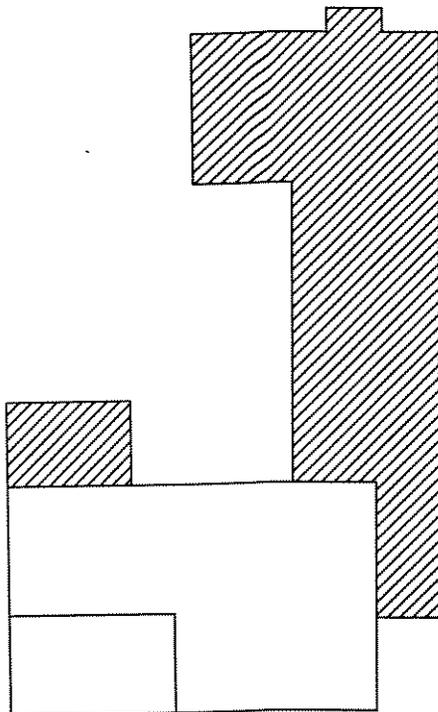
The exterior of the house is clapboard with a large front gable. Windows are typically true divided lite, double hung with those in the oldest portion of the house being six-over-nine while those in newer portions tend to be six-over-six or twelve-over-twelve. Today the exterior of the house retains much of its original eighteenth century character and it acts as a buffer to the expansive parking lot behind it helping to maintain the character of the historic district. The interior of the house has seen significant alterations and even the oldest rooms do not appear to contain much of their original materials.



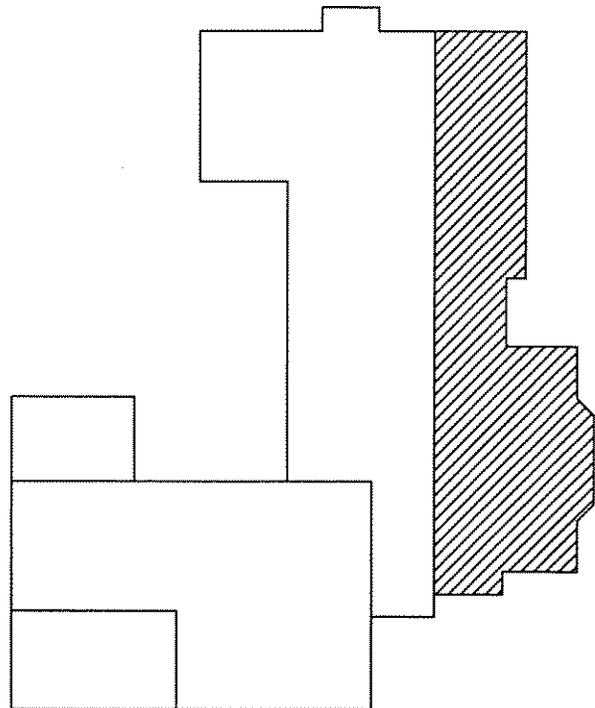
LATE 18TH OR EARLY 19TH CENTURY  
1780s - 1870s



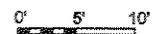
LATE 19TH CENTURY  
1870s - 1950s



MID 20TH CENTURY  
1950s - 1975



LATE 20TH CENTURY  
1975 - 1996



HISTORICAL EVOLUTION OF 17 WOODBURY LANE

1/16" = 1'-0"



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### 3.0 CONDITION ASSESSMENT AND TREATMENT

#### 3.1 Introduction

Conditions at 17 Woodbury Lane were reviewed Tobin Tracey on October 20, 1998. The examinations were visual only and further destructive investigations might uncover hidden conditions not identified in this report. The goal of this examination was to determine the condition of existing fabric and current needs for repair with an aim of identifying an adaptable reuse for the building. The weather was dry with temperatures in the 50 degree range and clear skies. Wayne King of Ocmulgee Associates, Inc. examined the building's structure; Walt Henry of Syska & Hennessy New England reviewed the mechanical, electrical and plumbing systems; and Paul Hoffman of Levine Fricke Recon performed a hazardous materials inspection. The findings from all of these examinations are summarized below, the complete reports can be found in the Appendix of this report.

Any necessary repairs for the house at 17 Woodbury Lane should follow several basic principles common to the maintenance of historic buildings, adapted from *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, published by the National Park Service. These principles are also in keeping with the Acton Historic District Commission Design Guidelines.

1. Deteriorated architectural features should be repaired rather than replaced wherever possible.
2. When replacement of original building material is necessary, new materials should match the material being replaced in composition, design, color, texture and other visual qualities.
3. Replacement of missing architectural features should be accurately duplicated based on historical or physical evidence rather than conjecture.
4. Repair methods, such as surface cleaning of the building, should be undertaken using the gentlest methods possible.

These principles recognize that historic materials and details have proven records for durability and compatibility, and that a small amount of maintenance at regular intervals avoids large investments in repairs. If new materials are incorporated into the structure, care must be taken to assure that their physical properties do not conflict with the physical properties of surrounding materials. If materials are improperly applied, it may cause or accelerate physical deterioration of the historic building. An example of this is the incorporation of copper into a building that already has aluminum, tin, or iron elements. If the metals come directly into contact with each other, or indirectly by the flow of water, corrosion can occur in the original material because copper is higher on the galvanic scale.

When repairs or alterations are being made to the house, there are several architectural character defining features and elements that should be conserved under all circumstances. These features are what help to define the house as historically important and they include:

1. The granite foundation.
2. The simple wood cornice that returns at the gable ends.
3. The corner boards.

- 
4. The simple pedimented architrave around the entrance door.
  5. The true-divided lite, double-hung windows.
  6. The white clapboards.

Many of these features are characteristic of the Greek Revival style of architecture and/or give the house its uniqueness. Sympathetic additions have been added to the house in the twentieth century. If any other additions are ever connected to the original house, it is important that the connections not significantly alter any of these features and the simplicity of the house is maintained.

In addition to the features and elements that should be conserved under all circumstances, there are others that should be preserved if possible, but if they cannot, they can be replaced or modified. Among these features are:

1. The uncluttered site. Vines should not be allowed to grow on arbors attached to the building. Any plantings around the foundation should be low to the ground and separated from the building so that roots of the plantings do not damage the foundation wall.
2. The exterior shutters. Sketches from 1925 indicate that there were shutters on the house at that time, but it is not certain if the house always had shutters. If the shutters are replaced, they should match the existing unless evidence uncovers a different style. The shutters are not essential and could be eliminated if absolutely necessary, but this is not suggested.

The best practice is to always try to preserve the original features. Often there are expendable features that can be altered and it will not take away from the historic significance of the building. The Acton Historic District Commission, Massachusetts Historic Commission, a historical architect or architectural historian can be consulted to better understand what features and elements are important to the architectural character.

### 3.2 Architectural

**Introduction.** Conditions of both the exterior and interior of the entire house were reviewed. The tables in the Appendix evaluate each of the elements identified as good, fair, or poor. These rating criteria follows the basic criteria developed by the National Historic Landmark Condition Assessment program.

An element is evaluated as good when:

- the element is intact, structurally sound and performing its intended purpose.
- there are few or no cosmetic imperfections.
- the element needs no repair and only minor or routine maintenance.

An element is evaluated as fair when:

- there are early signs of wear, failure, or deterioration, though the element is generally structurally sound and performing its intended purpose.
- there is failure of a sub-component of the element.
- replacement of up to twenty-five percent of the element or replacement of a defective sub-component is required.

An element is evaluated as poor when:

- the element is no longer performing its intended purpose.
- the element is missing.
- deterioration or damage affects more than twenty-five percent of the element and cannot be adjusted or repaired.
- the element shows signs of imminent failure or breakdown.
- the element requires major repair or replacement.

**Exterior Existing Conditions.** Overall the house is in fair condition. On the exterior the roof shingles are showing some signs of wear and they should be inspected every year with a plan to replace them in five to ten years. The chimneys are covered with vines that can potentially cause damage and the top of the internal chimney is deteriorated. The gutters and downspouts are filled with leaves and other organic growth. The clapboards are generally in good condition, but have areas of peeling and cracking paint. The boards on the east end of the house are charred and missing. This is where the Town removed a shed to build the parking lot. The eave needs to be rebuilt in this location. There are approximately fourteen windows that need work ranging from reglazing to replacing cracked panes to replacing deteriorated sash.

#### **Recommendations.**

- Remove all vines and organic growth from all chimneys and re-point select areas of the masonry.
- Rebuild the top of the internal chimney.
- Clean out all gutters and downspouts.
- Replace damaged clapboards, and scrape, prime and paint all woodwork.
- Repair fourteen windows.

**Interior Existing Conditions.** On the interior the wood floors typically are worn and need to be refinished. The linoleum and carpeting should be replaced because they are worn and soiled. The walls and ceilings have areas of minor deterioration that need to be patched. The lighting needs to be changed depending on what the future use will be, and telephone jacks will most likely need to be added. Right now all of the outlet and switch cover plates need to be replaced. The kitchen cabinets should be replaced and a new stainless steel sink and appliances provided. In all bathrooms the toilets should be replaced with low-flow toilets and the sinks and base cabinets should be replaced. Minor repair work to the ceramic tile is required. If the house is adapted for office or public use all three existing bathrooms should be demolished and four accessible bathrooms, two on each floor, should be rebuilt with new toilets and sinks.

#### **Recommendations.**

- Refinish all wood floors and replace all linoleum and carpeting with new linoleum or carpet.
- Patch all damaged walls and ceilings and paint.
- Replace all switch and outlet cover plates.

- 
- Replace existing kitchen cabinets and provide new stainless steel sink, stove and refrigerator.
  - Replace sinks and base cabinets in three existing bathrooms. Replace toilets with low-flow toilets.
  - Repair damaged ceramic tile in bathrooms. Thoroughly clean all tile.

### 3.3 Structural

**Existing Conditions.** The structural system of the house is in good condition with the exception of a few key areas. The roof over the oldest section of the house (southwest corner) is framed with 3x5 rafters spaced 28 inches apart. This roof currently can only support a snow load of 5 to 7 psf. A portion of the first floor framing under the eastern edge of original house is rotted and showing signs of powder post beetle damage. The joists are under sized and spaced approximately 24 inches apart. All of the floor loads are adequate for a residence, but if the house were to be used for a different use in the future, some of the floors might need to be strengthened to carry a heavier load. The moisture content of the wood in the basement was between 17 and 20 percent. This is relatively high and one of the posts supporting the bathtub in Room 113 was soft. The wood sills are near or at ground level and although no damage is visible, they are vulnerable to moisture and insect attack and deterioration might be found if further destructive investigations are done.

#### **Recommendations.**

- Let in new 2x8 rafters at 12 inches between the existing rafters over the oldest portion of the house.
- Re-frame the eastern end of the first floor in the original section of the house.
- Replace all wood posts in the basement with steel concrete-filled lally columns.
- Sister onto joists that are not adequate to support the floor loads above.
- Regrade around the house to allow for 8 inches of clearance between the grade and the wood sills if possible.
- Replace or repair any rotted sills found during further investigations or construction.

### 3.4 Mechanical, Electrical and Plumbing

**Existing Mechanical Conditions.** The heating system for the house is circulating hot water. The boiler is a relatively new gas fired unit with an oil fired power burner. The boiler size appears adequate for a house of this size. A 275 gallon oil tank is located in the basement and the tank shows signs of surface rust. The oil piping appears to be new and in good condition. There are three zone circulators at the boiler that are piped with copper piping. The zones are difficult to determine because there are four thermostats; however, one of the thermostats is in a room with no baseboard radiators. There is one convector in the kitchen. The heating appears to be adequate for the house.

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### Recommendations.

- The heating system should be converted from oil to gas if gas is available. If not, the oil tank should be replaced.
- Depending on the future use of the house, the system may have to be changed to accommodate new program requirements.

**Existing Electrical Conditions.** The house is currently served by a 200 amp service, which is adequate for a structure of this size; however, the panel is rusty from moisture in the basement or a leak from the exterior. The wiring varies throughout the house from plastic sheathed cable (commonly known as Romex) to flexible armored cable (often called BX). It is difficult to determine what wiring is in use and what is not. All of the wiring to fixtures may not be grounded and the wiring to all of the outlets in the rooms is suspect. There are no exterior outlets on the house. Lighting is primarily provided by lamps, there are some ceiling mounted lights and recessed lights in the dining room and bedroom areas. Exterior lighting is limited to the east side, or back, of the house. Cable television and telephone lines enter the house along the west façade. The service entrances are susceptible to water infiltration.

### Recommendations.

- Make the electrical service entrance weather tight and redo all wiring in the house.
- Provide a minimum number of outlets on the exterior of the house.
- Consider installing some lighting in the front of the house.
- Provide new service entrances for the cable television and telephones. Depending on the future use of the building, there may be a desire for a high speed data link.

**Existing Plumbing Conditions.** The location of the water meter is an opening in the basement floor that was full of water during the inspection, the meter itself has been removed. The water distribution pipes from the meter and throughout the house are ½ inch in size. This is small for a residence, particularly if more than one plumbing fixture is used at a time. Most of the piping was lead, but some galvanized piping was visible. The age of the building suggests that the solder may be 50/50 lead-tin, but this could not be determined visually. The cold water piping appears to have been added onto over time and it runs aimlessly throughout the house. The water heater is a 50-gallon gas fired unit that appears fairly new and is in good condition.

The waste piping from the plumbing fixtures is a mix of 1 ½ inch copper, 3 inch PVC and 4 inch cast iron. The waste system has been added onto over time in a haphazardous way and in the basement some of the waste piping pitches back into the house, creating a pocket for waste collection. The waste piping exits the building less than a foot below grade on the east side of the house leaving the system subject to freezing. Three vents vent the plumbing system, two go through the roof and one runs up the exterior of the house and terminates below the roofline. The exterior vent does not meet code requirements.

### Recommendations.

- The cold and hot water piping should be completely redone with ¾ inch copper pipe. The hot water heater can be reused.

- 
- The waste and vent piping systems should both be completely redone.

### 3.5 Hazardous Materials

**Existing Conditions.** A cursory investigation of hazardous materials was completed in the house. Nine suspect asbestos containing materials were identified and twenty-two (22) bulk samples were taken. Of the nine materials identified, four were determined to contain asbestos. The materials found to contain asbestos include the transite board in the basement above the boiler; the kitchen and dining room linoleum floor; the flue patching material around the boiler and hot water heater flue pipe to chimney connections and the joint and tape compound throughout the newer sections of the house.

A container of methanol petroleum distillates and methaline chloride cleaner was found in the kitchen. Several cans of paint and primer were in the basement. Lead paint samples were not taken.

#### **Recommendations.**

- Remove all asbestos containing materials from the house.
- Remove all regulated materials from the house following the appropriate local, state and federal regulations.
- Collect lead paint samples prior to any demolition work to determine proper mitigation requirements.

### 3.6 Conclusion

The recommendations made in this section are for repairing the house as is and not altering the use. Many of the repairs are a result of the age of the house and are general maintenance or they are fixing a previous poor installation. All of these repairs will need to be made if the use of the house is to change, but the work will most likely be more extensive because it will involve making physical alterations to the house. The exterior of the house retains much of its original eighteenth century character and it acts as a buffer to the expansive parking lot behind it helping to maintain the character of the historic district. Because the house is a contributing resource to the Historic District, Turk Tracey & Larry Architects, LLC recommend that all efforts be made not to demolish the house.

The interior of the house has seen significant alterations and even the oldest rooms do not appear to contain many of their original materials. Therefore, the interior could be altered to accommodate a new use without affecting the significance of the house. The layout is already relatively suitable for use as meeting and office space. Few new partitions would need to be erected. The primary alterations would be for building code compliance. Included among the code upgrades that would need to be made is making the building accessible, installing new bathrooms, installing an elevator and installing a new enclosed stair. By installing the enclosed stair, the building would not have to be sprinklered if it is used for offices. The Town could apply for a variance not to install an elevator because the building meets the requirements of an historic building in the Massachusetts Building Code. However an elevator could easily be

installed on the back side of the house without affecting the historic significance, so it is unlikely that a variance would be granted.

Four options and their pros and cons have been suggested on the next pages and rough cost estimates for each option have been provided. These options include mothballing the house, demolition of the structure and landscaping the existing site, relocating the house to another property within the historic district and rehabilitating the existing house for use as community meeting space or additional Town Hall use.

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## 4.0 RE-USE OPTIONS

Continued use of the house at 17 Woodbury Lane as a residence is no longer a viable alternative. The lot no longer complies with town zoning because a portion of it was acquired for the library expansion project immediately behind the house. The portion of the lot directly to the south of the house has been designed as a leaching area for the library's parking lot, and there is no room on the north side of the house to expand the present septic system should the septic tank fail. The Town has made provisions to connect the house's septic system to the library's tank if need be, but this could not happen if the house were sold for use as a private residence.

Some of the re-use options considered for the house at 17 Woodbury Lane include use as a museum, a community center, and as office space. The Acton Historical Society already has a building for their museum, the Town has a new senior center, and the Acton Memorial Library has additional meeting room space to accommodate the overflow from town hall. The Town Manager has expressed a desire to keep all of the town offices together in the current town hall. The house could easily accommodate office or meeting space, however, major alterations would have to be made. The majority of these alterations would be necessary to meet current code requirements. Option 4 below describes the necessary alterations. Until the town hall becomes overcrowded and additional office space is needed, the house could be mothballed and rehabilitation work completed in the future.

Based on this information and the current condition of the house the following four options have been developed and associated costs provided. The costs are rough estimates and need to be further refined as the scope of work for each individual option is refined. The dollar amounts listed are based on the current market. If the work is not completed at this time, the Town will need to allow for inflation. The options have been listed from most economical to most costly. Turk Tracey & Larry Architects, LLC believe the best options are 1, 1A and 4. All three of the these options maintain the historically significant portions of the house on the site, help to maintain the significance of the historic district and shield the library parking lot from the road. Option 3, relocating the house, would be okay if it is determined that the house cannot be rehabilitated for use on its existing site. Option 2, demolition of the house, should only be considered as a last possible alternative. The loss of the house from its present site would diminish the significance of the Acton Centre Historic District. This is only Turk Tracey & Larry Architects, LLC opinion and it is understood that because the property is owned by the Town, economics will be a consideration when determining the feasibility for re-use of the house.

### **Option 1 - *Mothballing the house.***

This would be a viable solution until a use can be identified or the Town needs additional space. Minor structural work would need to be completed on the interior of the oldest portion of the house to stabilize it and the exterior would need some minor repair work to prevent further deterioration. Among this work is removing the vines from the sides of the house, replacing some fire damaged siding, repairing broken window panes, reconstructing the top of a chimney and painting the entire building. Once the house is mothballed, yearly maintenance inspections and repairs will need to be performed. The house will also need to be monitored on

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a regular basis and windows may need to be opened during different times of the year to allow for proper ventilation. All systems and utilities should be shut off.

Cost:

Structural stabilization.	\$18,200.00
Exterior repairs, painting.	\$11,800.00
<b>Total Cost</b>	<b>\$30,000.00</b>

10 year maintenance cost at net present value:	\$50,000.00 (\$5,000/year)
20 year maintenance cost at net present value:	\$100,000.00 (\$5,000/year)

**Option 1A** - *Mothballing the house after minor demolition.*

This would also be a viable solution until a use can be identified or the Town needs additional space. Prior to mothballing the structure, the single story portion of the house, which was built in the 1950's and is not historically significant, would be demolished. This portion of the house would most likely need to be removed in the future should the structure be converted to another use (see option 4). The remaining historically significant portion of the structure would still act as a buffer to the parking area behind and the site would be free to accommodate snow storage and appropriate landscaping between the original house and new parking lot.

The one story portion at the east of the house would be demolished and new exterior infill wall will have to be added along the removal line. See sketch A1 for indication of area to be demolished. The east portion of the site should be re-landscaped and the portion of the drive that leads to the existing garage should be removed. Minor structural work would still need to be completed on the interior of the oldest portion of the house to stabilize it and the exterior would need some minor repair work to prevent further deterioration. Among this work is removing the vines from the sides of the house, repairing broken window panes, reconstructing the top of a chimney and painting the entire building. Once the house is mothballed, yearly maintenance inspections and repairs will need to be performed. The house will also need to be monitored on a regular basis and windows may need to be opened during different times of the year to allow for proper ventilation. All systems and utilities should be shut off.

Cost:

Demolition (excluding dumping fee)	\$3,200.00
Exterior in-fill wall construction.	\$800.00
Landscaping.	\$3,400.00
Structural stabilization.	\$18,200.00
Exterior repairs, painting.	\$9,400.00
<b>Total Cost</b>	<b>\$35,000.00</b>

10 year maintenance cost at net present value:	\$50,000.00 (\$5,000/year)
20 year maintenance cost at net present value:	\$100,000.00 (\$5,000/year)

**Option 2 - Demolition of the structure and landscaping the existing site.**

This option should only be selected as a last possible alternative. The house is a contributing resource within the Acton Centre Historic District and it acts as a buffer to the expansive parking lot behind. While the demolition of the house might allow for further expansion of library and town hall parking the loss of the house would be far greater than the gain of the parking. Acton's Town Center is over two hundred fifty years old and is the heart of the community. The Town's decision to have the town center listed on the National Register of Historic Places shows its commitment to preserving Acton's history. The earliest sections of the house at 17 Woodbury Lane appear to date to the turn of the nineteenth century and construction from this time period is rare. The house along with the other historic houses around the Town Common create a cohesiveness of scale and proportion that gives the historic district its character. The loss of the house would diminish the significance of the area.

Cost:

Demolish house, remove foundation, earthwork.	\$16,200.00
Sitework and utilities.	\$65,000.00
Design contingency	\$3,800.00
<b>Total Cost</b>	<b>\$85,000.00</b>

**Option 3 - Relocating the house to another property within the historic district.**

This option is not the best solution, but it would save the house. It was not uncommon to move houses during the nineteenth century and as mentioned earlier in this report it is possible that this house was relocated to the present site in the middle of the nineteenth century. By keeping the house within the historic district it would help to maintain the character of the district. One major problem would be finding a suitable lot within the historic district. Moving the house from its current location would expose the library parking lot to view and it would be important to landscape along the street to create a new buffer.

Cost:

*Town's Cost*

Remove foundation, earthwork at existing site.	\$15,000.00
Sitework and utilities.	\$65,000.00
Landscape site as a park and design contingency.	\$45,000.00
<b>Total Town's Cost</b>	<b>\$125,000.00</b>

*New Owner's Cost*

Move house.	\$25,000.00
New foundation for relocated house	\$35,000.00
Sitework and utilities.	\$35,000.00
Site development and design contingency.	\$80,000.00
<b>Total New Owner's Cost</b>	<b>\$175,000.00</b>

<b>Total Cost</b>	<b>\$300,000.00</b>
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**Option 4 - Rehabilitating the existing house for use as community meeting space or additional Town Hall office use.**

Though most costly, this option would be the best preservation solution for the house because it would continue to serve as a buffer for the parking lot behind it, it would help to maintain the character of the historic district and it would save a historic resource. The house could be converted to office or meeting space by removing the eastern section that used to be a breezeway and garage and constructing a new accessible entrance that would contain an elevator and an enclosed stair. The addition would be directly off of the parking lot and would provide a clear identifiable entry. The major alterations to the interior would be new accessible bathrooms, adding a few partitions, removal of the existing non-compliant stair to the second floor, some structural upgrades, new mechanical/electrical/plumbing, refinishing floors and painting. See the sketches on the following pages which indicate these modifications.

Cost:

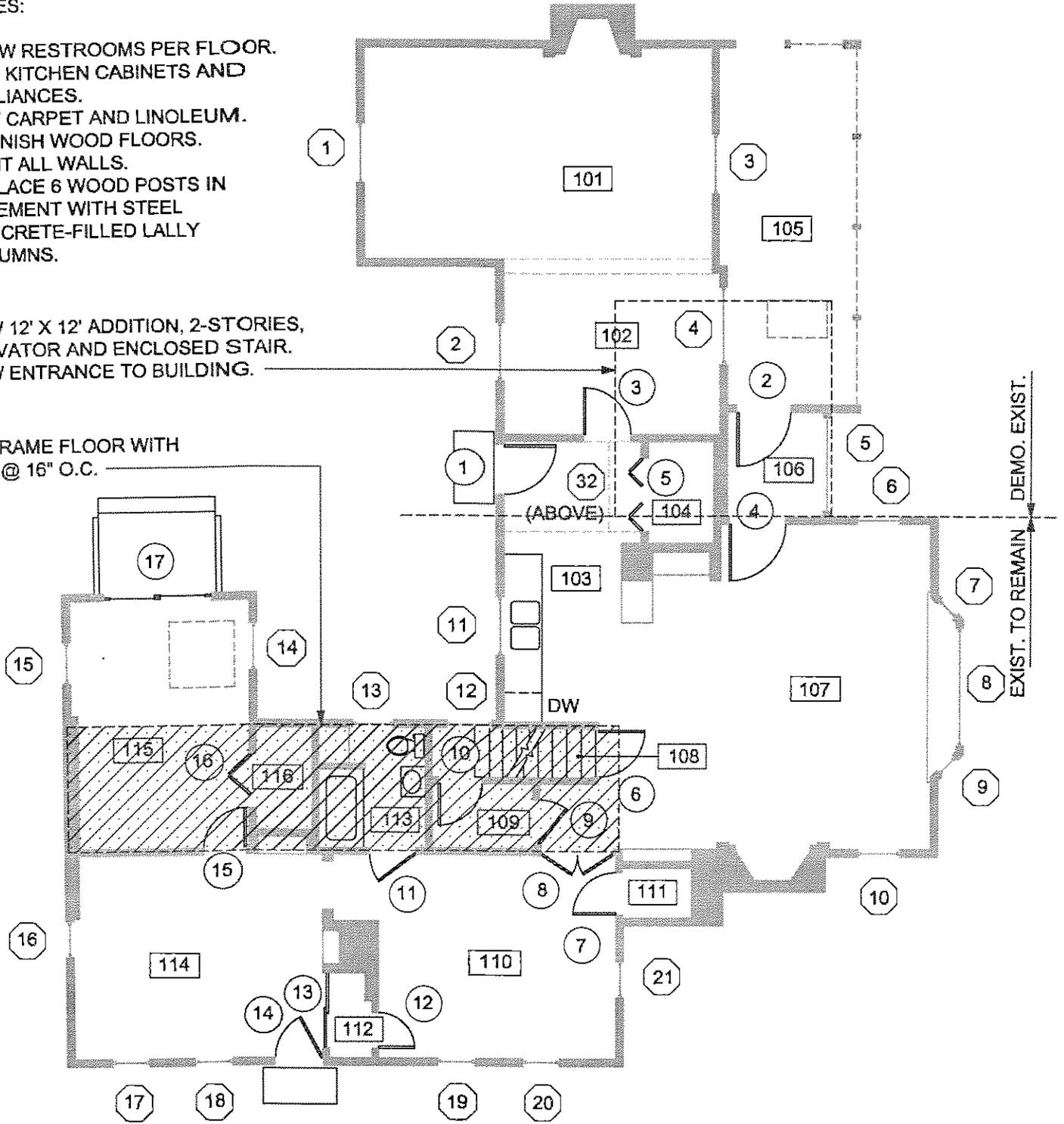
Rehabilitation of existing space.	\$241,500.00 (2100sf @ \$115)
New entrance/stair addition.	\$45,000.00 (300sf @ \$150)
New elevator.	\$75,000.00
Sitework and utilities.	\$65,000.00
Design contingency.	\$23,500.00
<b>Total Cost</b>	<b>\$450,000.00</b>

**NOTES:**

2 NEW RESTROOMS PER FLOOR.  
 NEW KITCHEN CABINETS AND APPLIANCES.  
 NEW CARPET AND LINOLEUM.  
 REFINISH WOOD FLOORS.  
 PAINT ALL WALLS.  
 REPLACE 6 WOOD POSTS IN BASEMENT WITH STEEL CONCRETE-FILLED LALLY COLUMNS.

NEW 12' X 12' ADDITION, 2-STORIES, ELEVATOR AND ENCLOSED STAIR.  
 NEW ENTRANCE TO BUILDING.

REFRAME FLOOR WITH 2X8 @ 16" O.C.



**FIRST FLOOR PLAN - OPTION 4**

1/8" = 1'-0"



**TURK TRACEY & LARRY ARCHITECTS, LLC**  
 110 EXCHANGE STREET  
 PORTLAND, MAINE 04101  
 TEL: 207.781.9662  
 FAX: 207.781.9696

**Feasibility Study for  
 17 Woodbury Lane  
 Acton, Massachusetts**  
 TOWN OF ACTON  
 MASSACHUSETTS

DATE: 30 OCT 98  
 REVISIONS:  
 PROJECT NO.: 9816

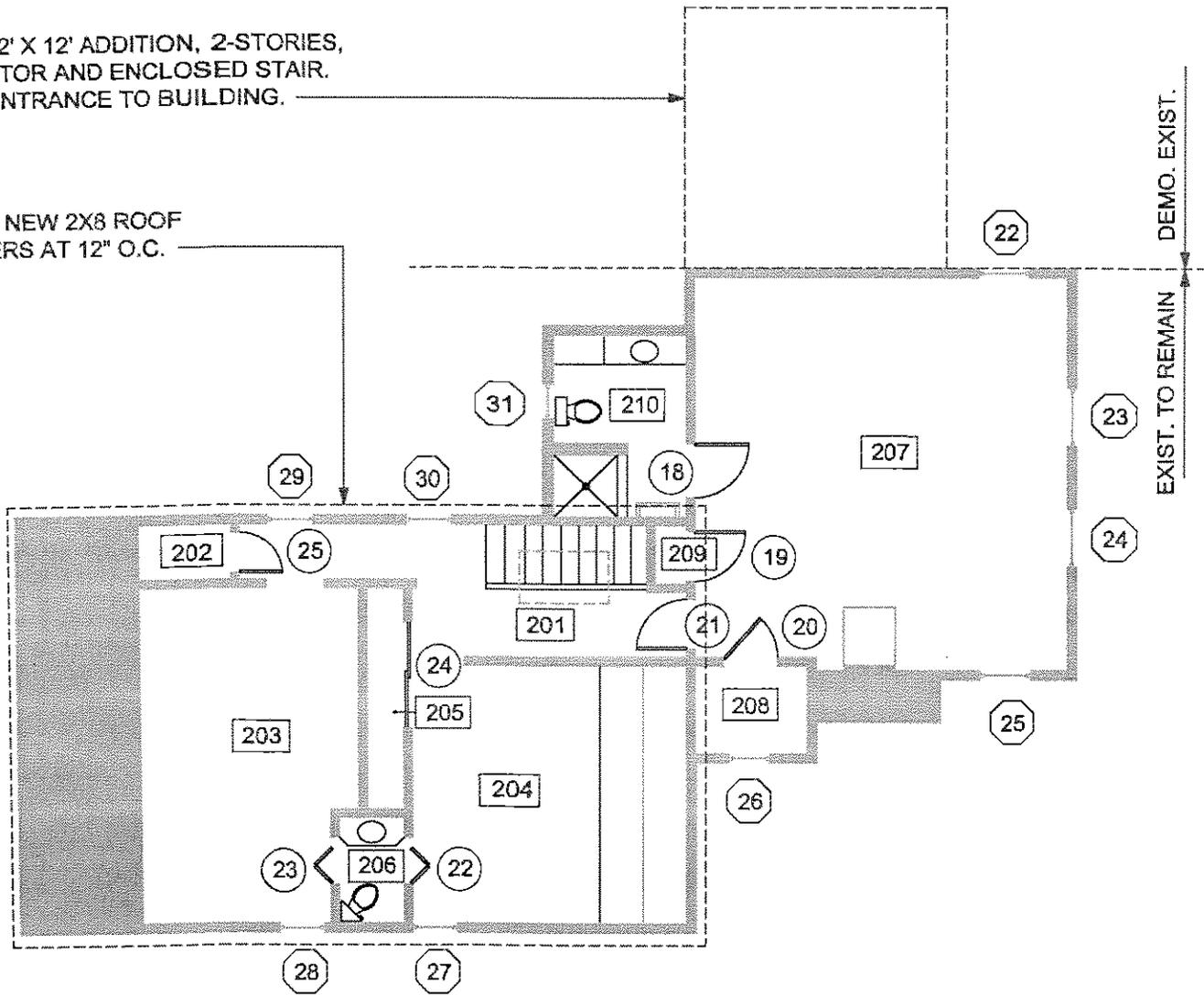
**A7**  
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**NOTES:**

2 NEW RESTROOMS PER FLOOR.  
 NEW CARPET.  
 REFINISH WOOD FLOOR.  
 PAINT ALL WALLS.

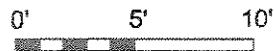
NEW 12' X 12' ADDITION, 2-STORIES,  
 ELEVATOR AND ENCLOSED STAIR.  
 NEW ENTRANCE TO BUILDING.

LET IN NEW 2X8 ROOF  
 RAFTERS AT 12" O.C.



**SECOND FLOOR PLAN - OPTION 4**

1/8" = 1'-0"



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 110 EXCHANGE STREET  
 PORTLAND, MAINE 04101  
 TEL: 207.761.9882  
 FAX: 207.761.9696

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**A8**

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NOTES:

REMOVE VINES FROM CHIMNEY AND HOUSE.  
RE-POINT 30SF OF MASONRY.  
SCRAPE, PRIME AND PAINT ENTIRE ELEVATION.

REGLAZE.

REBUILD TOP OF CHIMNEY.

REPLACE ONE SASH.



## WEST ELEVATION - OPTION 4

1/8" = 1'-0"

TURK TRACEY & LARRY  
ARCHITECTS, LLC  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.781.9862  
FAX: 207.781.9896

Feasibility Study for  
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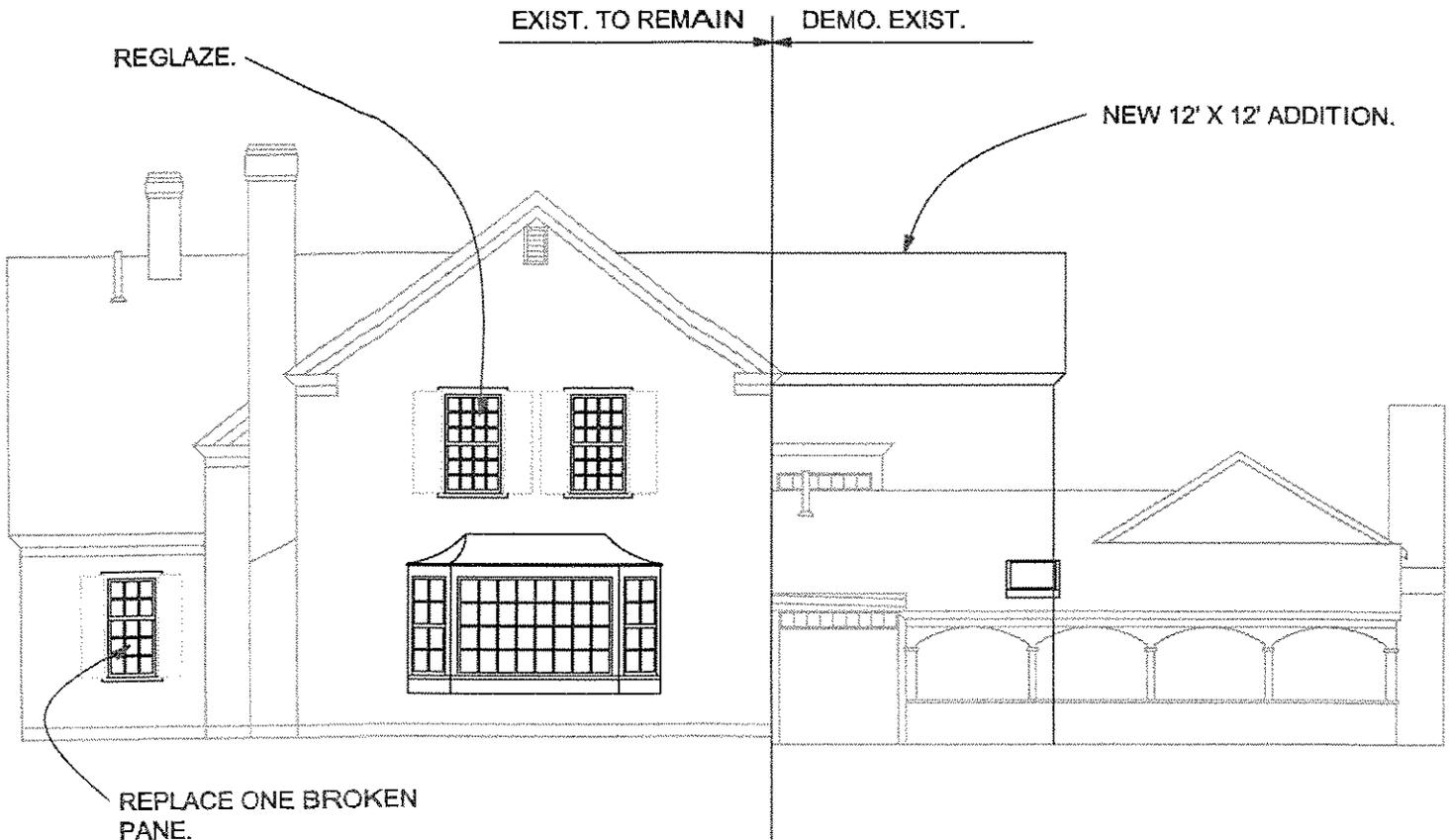
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# A9

SHEET NO.:

NOTES:

SCRAPE, PRIME AND  
PAINT ENTIRE  
ELEVATION.



## SOUTH ELEVATION - OPTION 4

1/8" = 1'-0"

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ARCHITECTS, LLC  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.761.9652  
FAX: 207.761.9696

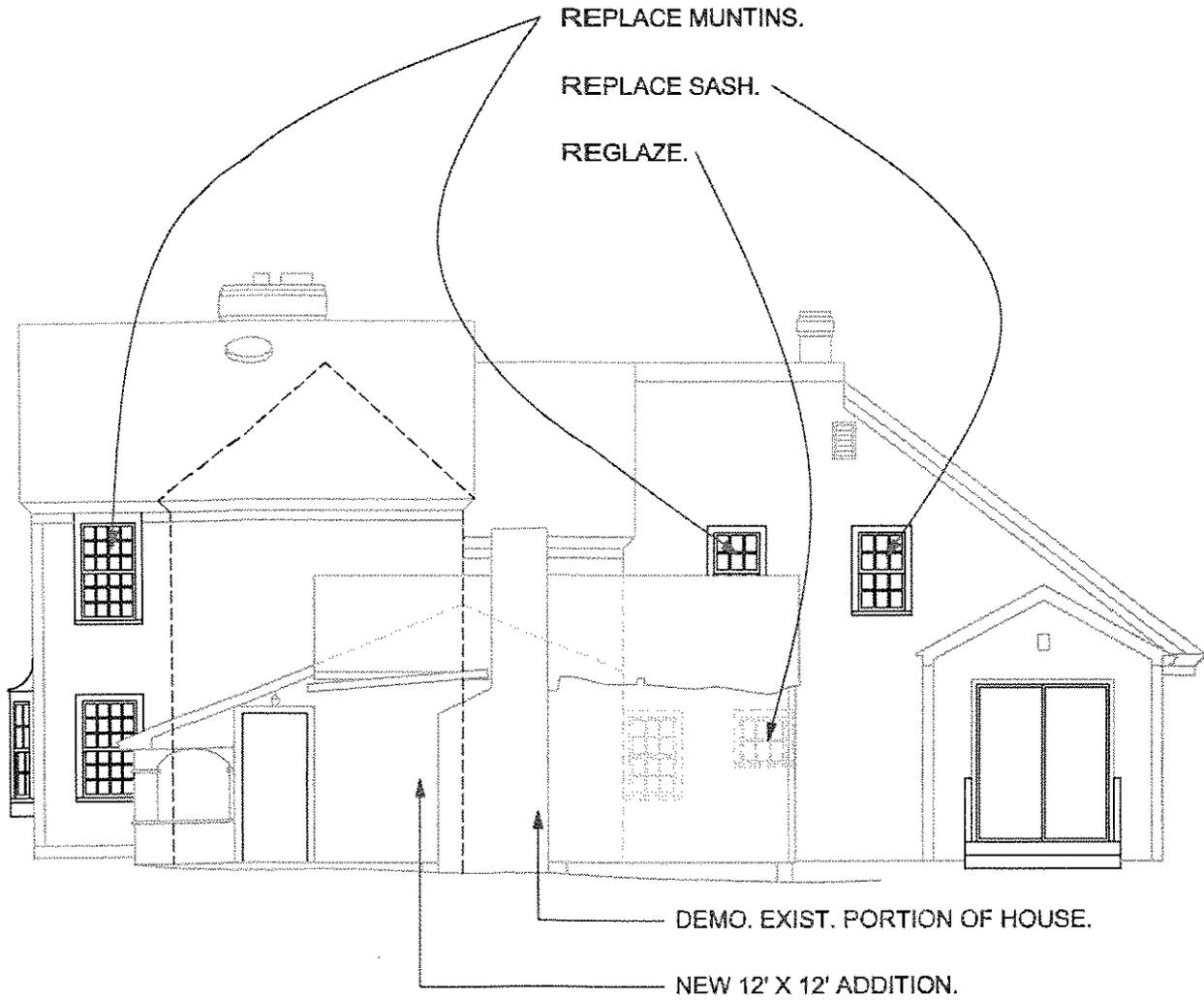
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**A10**  
SHEET NO.:

NOTES:

SCRAPE, PRIME AND PAINT ENTIRE  
ELEVATION.



## EAST ELEVATION - OPTION 4

1/8" = 1'-0"

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ARCHITECTS, LLC  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.761.9662  
FAX: 207.761.9696

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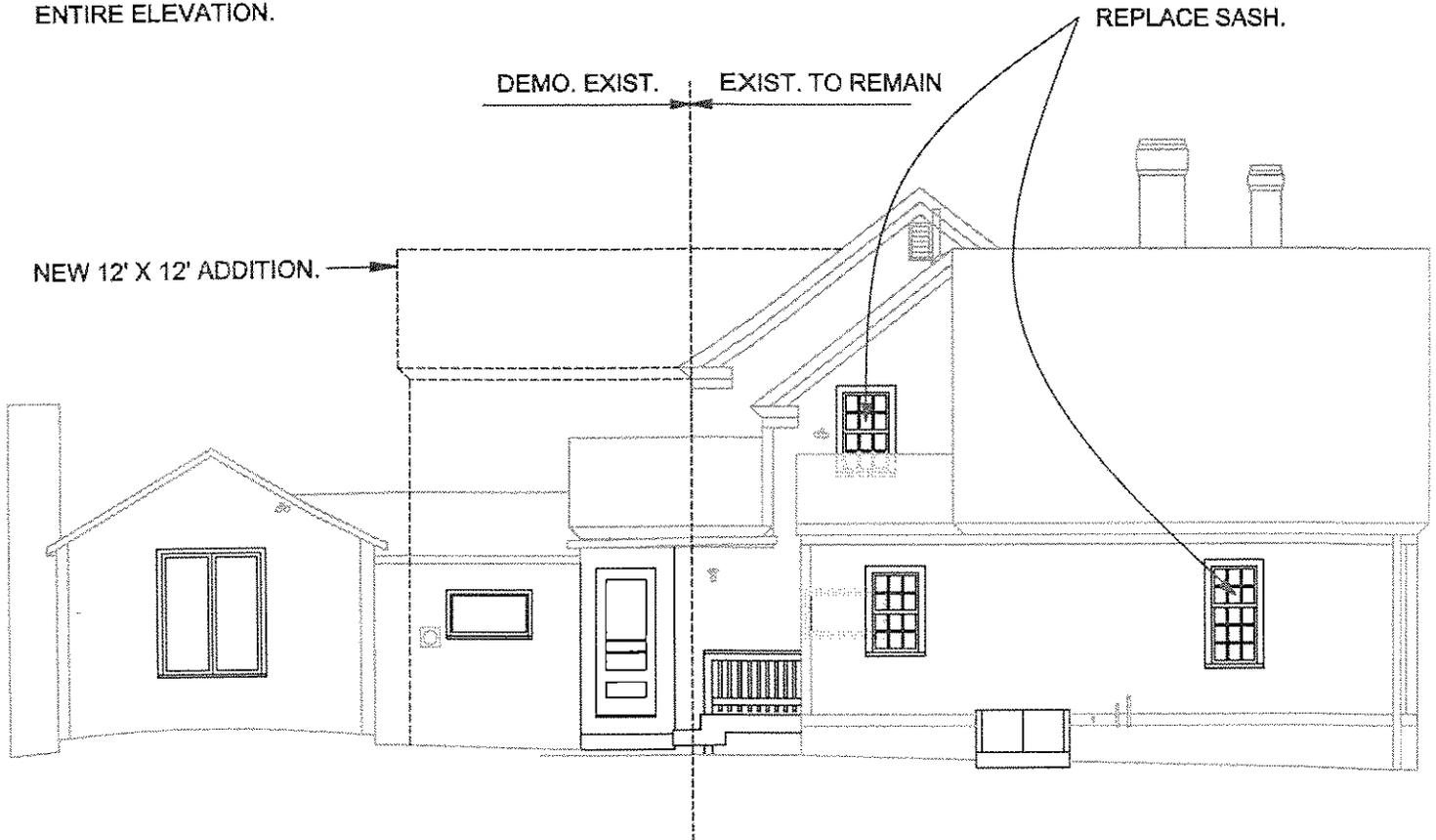
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# A11

SHEET NO.:

NOTES:

SCRAPE, PRIME AND PAINT  
ENTIRE ELEVATION.



## NORTH ELEVATION - OPTION 4

1/8" = 1'-0"

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ARCHITECTS, LLC  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.781.9882  
FAX: 207.761.9696

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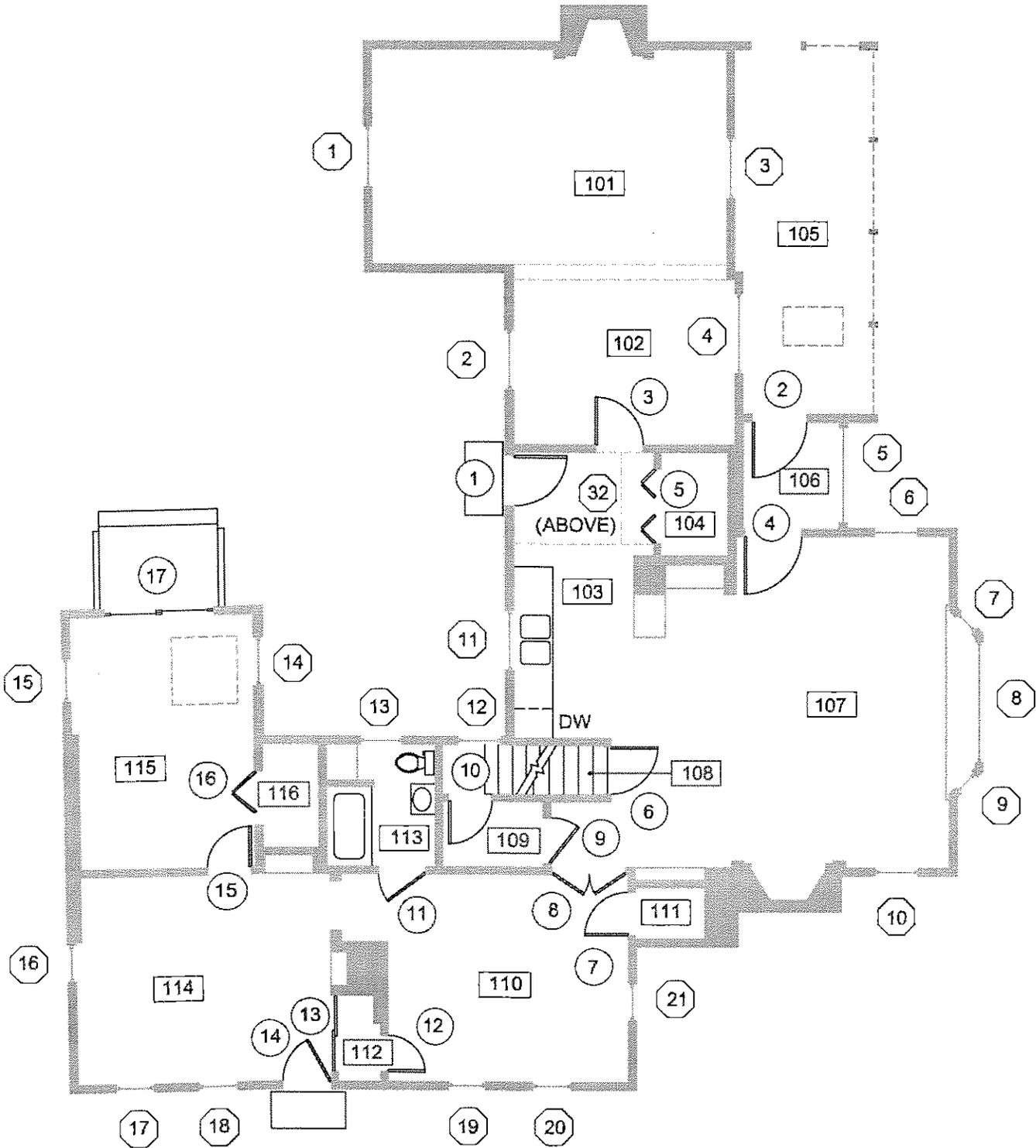
DATE: 30 OCT 98  
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PROJECT NO.: 9816

# A12

SHEET NO.:

**APPENDIX**  
Measured Drawings of Existing Structure  
Architectural Assessment Tables  
Structural Engineer's Report  
MEP Engineer's Report  
Hazardous Materials Report



# FIRST FLOOR PLAN

1/8" = 1'-0"

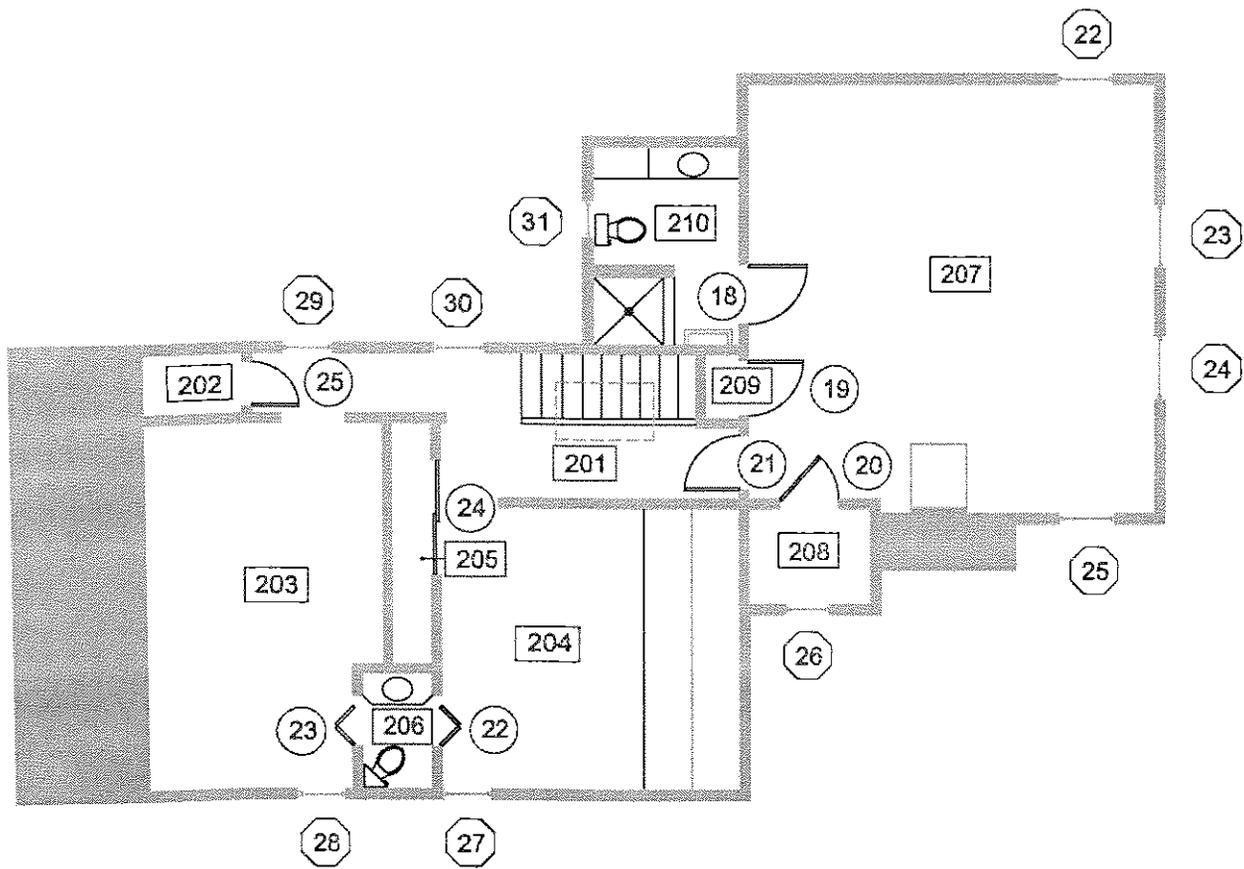


**TURK TRACEY & LARRY ARCHITECTS, LLC**  
 110 EXCHANGE STREET  
 PORTLAND, MAINE 04101  
 TEL: 207.781.9662  
 FAX: 207.781.9698

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**A1**  
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## SECOND FLOOR PLAN

1/8" = 1'-0"

0' 5' 10'



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ARCHITECTS, LLC**  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.761.9862  
FAX: 207.761.9896

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**A2**

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## WEST ELEVATION

1/8" = 1'-0"

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ARCHITECTS, LLC  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.761.9662  
FAX: 207.761.9696

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**A3**  
SHEET NO.:



## SOUTH ELEVATION

1/8" = 1'-0"

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ARCHITECTS, LLC  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.761.9662  
FAX: 207.761.9896

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## EAST ELEVATION

1/8" = 1'-0"

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ARCHITECTS, LLC**  
110 EXCHANGE STREET  
PORTLAND, MAINE 04101  
TEL: 207.761.9662  
FAX: 207.761.9698

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**A5**  
SHEET NO.:



**NORTH ELEVATION**

1/8" = 1'-0"

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## BUILDING ASSESSMENT SURVEY

### A. Exterior

CONSTRUCTION DATE: Early to mid nineteenth century with twentieth century additions.

DESCRIPTION: Greek Revival Cottage

LOCATION/ELEMENT	MATERIAL	CONDITIONS/RECOMMENDATION
<b>Exterior</b>		
Roof	Asphalt shingles.	Good. Minor cupping and wear is visible throughout. Organic growth is occurring around the skylight over Room 115 (northeast corner of original house). Eave along east elevation of former garage needs to be rebuilt where a shed was removed. <i>Inspect roof every year and allow for replacement of shingles in 5 to 10 years. Rebuild 10lf of eave along east elevation.</i>
Chimney	Brick.	Fair. Vines are growing on the two exterior wall chimneys. Mortar is deteriorated on internal chimney and bricks are loose and missing at the cap. <i>Remove vines and other organic growth from all chimneys. Replace approximately 36 bricks and allow for re-pointing 75sf of masonry.</i>
Gutters/Downspouts	Wood and extruded aluminum.	Good. All gutters were filled with leaves and other organic growth. Paint finish worn on wood gutter above north elevation door. <i>Clean out all gutters and downspouts. Gutters and downspouts should be inspected every Spring and Fall. Scrape, prime and paint 20lf of wood gutter. Replace 10 lf of wood gutter along east elevation.</i>

LOCATION/ELEMENT	MATERIAL	CONDITIONS/ RECOMMENDATION
<b>Walls</b> North	Wood clapboards.	Good. Peeling and cracking paint. Deteriorated trim board to east of door. Tree and bush growing too close to house. <i>Replace 8' of 6" trim board.</i> <i>Scrape, prime and paint (approx. 550sf).</i> <i>Remove one tree and one bush from next to house.</i>
East	Wood clapboards.	Fair. Peeling paint, primarily at eaves. Peeling paint and discoloration at second floor of oldest portion of house. Boards charred and missing at northern end of original garage. Vines growing on southern end of original garage. <i>Remove vines.</i> <i>Scrape, prime and paint entire elevation (approx. 900sf).</i> <i>Replace 80sf of clapboards on original garage.</i>
South	Wood clapboards.	Good. Minor peeling paint. Deteriorated trim board at eave of porch. <i>Replace 8' of 6" trim board.</i> <i>Scrape, prime and paint entire elevation (approx. 550sf).</i>
West	Wood clapboards.	Good. Minor peeling paint. Vines growing on southern end. <i>Remove vines.</i> <i>Scrape, prime and paint southern half of elevation (approx. 200sf).</i>
<b>Foundation</b>	Granite and brick on rubble under oldest sections of house. Poured concrete under twentieth century sections.	Good.
<b>Doors</b>	Wood. Wood screen doors.	

LOCATION/ELEMENT	MATERIAL	CONDITIONS/ RECOMMENDATION
<b>Windows</b> North	Wood: casement, awning, and true divided lite double-hung.	Fair. Two of the double-hung windows have deteriorated muntins and one double-hung has three broken panes of glass. <i>Replace four sashes total in two double-hung windows with new. Paint.</i>
West	Wood: fixed and true divided lite double-hung.	Fair. The glazing on the fixed sash window and one double-hung window is deteriorated. One double-hung window has deteriorated muntins. <i>Reglaze fixed sash window and one double-hung window. Replace one sash total in one double-hung window. Paint.</i>
South	Wood: fixed and true divided lite double-hung.	Fair. The glazing on one double-hung window is deteriorated and one double-hung has one broken pane of glass. <i>Reglaze one double hung window. Replace one broken pane of glass.</i>
East	Wood: true divided lite double-hung.	Fair. The glazing on two windows is deteriorated. One window has three broken panes of glass. The muntins on three windows are deteriorated. <i>Reglaze two windows. Replace two sash total on one window. Replace three muntins total on two windows.</i>

## BUILDING ASSESSMENT SURVEY

### B. Interior

CONSTRUCTION DATE: Early to mid nineteenth century with twentieth century additions.

DESCRIPTION: Greek Revival Cottage

LOCATION/ELEMENT	MATERIAL	CONDITIONS/RECOMMENDATION
<b>Room 101/102</b>		
Floor	Wood, wide pine (8"-13").	Good. <i>Refinish floors, 350sf.</i>
Walls	Textured plaster. Wood wainscot (2'-3 1/4" high, wide plank) in Room 101.	Good.
Ceiling	Textured plaster. Wood crown molding in Room 101.	Good. Ceiling height 6'-10 1/2" in Room 101, 7'-4" in Room 102.
Lighting / Elec. / Tele.	Downlights. 3 telephone jacks.	Good. Most cover plates missing from outlets and switches. <i>Replace all cover plates. Rewire telephone jacks.</i>
Fireplace	Brick.	Good. <i>Clean out ashes.</i>
<b>Room 103/107</b>		
Floor	Sheet linoleum.	Fair. Worn and deteriorated. <i>Replace 430sf of flooring with linoleum or carpet.</i>
Walls	Gypsum wallboard. Wood paneling on south wall of Room 107.	Fair. Wallboard has holes along north wall. <i>Replace 14sf of wallboard. Paint approximately 200sf of wall.</i>
Ceiling	Exposed wood beams (old wood reused) and floor boards above.	Good. <i>Remove misc. hooks, tape, pins, etc from beams.</i>
Lighting / Elec. / Tele.	Downlight and ceiling mounted light.	Good. Several cover plates missing from outlets and switches. <i>Replace all cover plates.</i>
Fireplace	Brick with wood surround.	Fair. Edges of wood surround are knicked. <i>Replace wood surround.</i>
Millwork	Wood, stained. Plastic laminate countertop and backsplash.	Fair. Knobs missing from cabinet doors. <i>Replace cabinets with new, 8lf total. Provide new stainless sink, stove, and refrigerator.</i>

LOCATION/ELEMENT	MATERIAL	CONDITIONS/ RECOMMENDATION
<b>Room 104</b>		
Floor	Sheet linoleum.	Poor. Worn and deteriorated. <i>Replace 25sf of flooring with linoleum or carpet.</i>
Walls	Painted plywood.	Fair. <i>Replace plywood with gypsum wall board, approx. 100sf. Paint.</i>
Ceiling	Painted plywood.	Fair. <i>Replace plywood with gypsum wallboard, approx. 25sf. Paint.</i>
Lighting / Elec. / Tele.	1 porcelain socket and bulb.	Good.
<b>Room 109</b>		
Floor	Sheet linoleum.	Fair. <i>Replace 20sf of flooring with linoleum or carpet.</i>
Walls	Plaster. Painted plywood or fiberboard.	Good.
Ceiling	Plaster or painted plywood.	Good.
Lighting / Elec. / Tele.	1 porcelain socket and bulb.	Good.
Millwork	Painted wood shelves on north and west walls.	Good.
<b>Room 110</b>		
Floor	Wood, 2 ¼" strip.	Good. Water stains. <i>Refinish floor, 160sf.</i>
Walls	Textured plaster. Wood wainscot (2'-7" high, wide plank).	Fair. Poor previous patch jobs to plaster. Crayon and pencil on wainscot to the south of bathroom door. <i>Repair 40sf of plaster. Clean crayon and pencil from wainscot.</i>
Ceiling	Gypsum wallboard with exposed wood beams.	Good. Exposed beams appear to be original.
Lighting / Elec. / Tele.	No lights. Junction box for 1 wall sconce.	Good. Most cover plates missing from outlets and switches. <i>Replace all cover plates.</i>
Fireplace	Brick chimney with wood surround.	Good. Pipe for wood burning stove covered over.

LOCATION/ELEMENT	MATERIAL	CONDITIONS/ RECOMMENDATION
<b>Room 113</b>		
Floor	1x1 ceramic tile.	Good. 1 tile is missing. <i>Replace 1 tile.</i> <i>Clean 28sf of floor.</i>
Walls	4x4 ceramic tile wainscot and tub/shower surround. Wallpaper above wainscot.	Good. Tile has mold and mildew. Wallpaper is peeling at edges. <i>Clean 110sf of tile.</i> <i>Remove 60sf of wallpaper, prepare wall and paint.</i>
Ceiling	Painted hardboard with wood crown molding.	Good. Mold and mildew on ceiling and crown molding. <i>Remove crown molding.</i> <i>Replace ceiling with gypsum wallboard (42sf) and paint.</i>
Lighting / Elec. / Tele.	Florescent strip light.	Fair. Cover is missing from light fixture. <i>Replace light fixture with new.</i>
Plumbing fixtures	Cast iron tub, porcelain toilet, porcelain sink with rim set in base cabinet.	Fair. All fixtures are dirty and base cabinet shows signs of deterioration. <i>Clean tub.</i> <i>Replace sink and base cabinet.</i> <i>Replace toilet with low flow.</i>
Misc.	Baseboard radiator.	Poor. Radiator is rusted. <i>Replace baseboard radiator, approx. 3' long.</i>
<b>Room 114</b>		
Floor	Wood, 2 ¼" strip.	Good. Water stains. Floor slopes to southeast corner. <i>Refinish floor, 170sf.</i>
Walls	Textured plaster.	Good. Drywall screws from Room 116 sticking through plywood backing of bookshelves in southeast corner of room. <i>Remove drywall screws and patch holes in plywood.</i>
Ceiling	Painted gypsum wallboard.	Good.

LOCATION/ELEMENT	MATERIAL	CONDITIONS/ RECOMMENDATION
<b>Room 115</b>		
Floor	Carpet	Good. Dirty. <i>Replace with new carpet, 135sf.</i>
Walls	Painted gypsum wallboard.	Fair. Seams have opened on south wall. Nails and screw sticking out of wall. A vine is growing up behind the baseboard along the south wall. <i>Remove nails and screws, patch holes. Re-tape seams on south wall, approx. 24lf. Remove the vine.</i>
Ceiling	Textured plaster.	Fair. Minor staining along south wall. <i>Check roof flashing to see if there is a leak. Paint approximately 140sf.</i>
Lighting / Elec. / Tele.	No lights.	Good. Cover plate missing from one switch. <i>Replace missing cover plate.</i>
<b>Room 201</b>		
Floor	Carpet	Poor. Badly stained. <i>Replace approximately 95sf.</i>
Walls	Gypsum wallboard.	Good. <i>Prepare and paint approximately 350sf of wall.</i>
Ceiling	Gypsum wallboard.	Good.
<b>Room 203</b>		
Floor	Carpet	Good. Dirty. <i>Replace with new carpet, 160sf.</i>
Walls	Gypsum wallboard covered with textured plaster or paint.	Good. <i>Prepare and paint approximately 300sf of wall.</i>
Ceiling	Gypsum wallboard.	Good. <i>Prepare and paint approximately 160sf of ceiling.</i>
Lighting / Elec. / Tele.	No lights.	Good. 1 switch plate is damaged. <i>Replace 1 switch plate.</i>

LOCATION/ELEMENT	MATERIAL	CONDITIONS/ RECOMMENDATION
<b>Room 204</b>		
Floor	Carpet	Good. Dirty. <i>Replace with new carpet, 96sf.</i>
Walls	Gypsum wallboard covered with textured plaster or paint.	Good. <i>Prepare and paint approximately 200sf of wall.</i>
Ceiling	Gypsum wallboard.	Good. <i>Prepare and paint approximately 96sf or ceiling.</i>
Millwork	Wood.	Fair. Knobs are missing from two doors. <i>Replace all knobs, all for 10.</i>
<b>Room 205</b>		
Floor	Wood, 2 ¼" strip.	Good.
Walls	Exposed wood studs.	Good. <i>Finish walls with gypsum wallboard, approximately 140sf.</i>
Ceiling		<i>Finish ceiling with gypsum wallboard, approximately 20sf.</i>
<b>Room 206</b>		
Floor	Ceramic tile.	Fair. Grout is mildewed and 3 tiles are cracked. <i>Patch cracks in tile. Clean floor.</i>
Walls	Wallpaper.	Fair. <i>Remove wallpaper, prepare and paint the walls, approximately 80sf.</i>
Ceiling	Gypsum wallboard.	Good.
Lighting / Elec. / Tele.	Exhaust fan and light.	Good.
Plumbing fixtures	Porcelain toilet, porcelain sink with rim set in base cabinet.	Fair. Toilet seat is chipped. Mildew and rust around sink pop-up drain. <i>Replace sink and base cabinet. Replace toilet with low flow.</i>

LOCATION/ELEMENT	MATERIAL	CONDITIONS/ RECOMMENDATION
<b>Room 207</b>		
Floor	Wood, wide pine (7 1/4").	Good. <i>Refinish floor, 300sf.</i>
Walls	Gypsum wallboard.	Good. <i>Prepare and paint approximately 550sf of wall.</i>
Ceiling	Gypsum wallboard.	Good.
Lighting / Elec. / Tele.	Downlights.	Good.
Misc.	Baseboard radiators.	Poor. Radiators are rusted. <i>Replace baseboard radiator, approx. 24' long.</i>
<b>Room 210</b>		
Floor	Ceramic tile with wide grout joints.	Fair. Grout is cracked along door threshold. <i>Clean. RegROUT approximately 5lf of joints.</i>
Walls	Gypsum wallboard.	Good. <i>Prepare and paint approximately 200sf of wall.</i>
Ceiling	Gypsum wallboard.	Good. <i>Prepare and paint approximately 50sf of ceiling.</i>
Plumbing fixtures	Shower unit with ceramic tile surround, porcelain toilet, porcelain sink set in base cabinet.	Fair. All fixtures are dirty and base cabinet shows signs of deterioration. Shower head is missing. <i>Clean shower and replace missing shower head. Replace sink and base cabinet. Replace toilet with low flow.</i>
Misc.	Baseboard radiator.	Poor. Radiators cover is rusted. <i>Replace baseboard radiator, approx. 3' long.</i>



# OCMULGEE ASSOCIATES, INC.

Consulting Structural Engineering  
317 High Street, Ipswich, Massachusetts 01938  
Voice: (978) 356-7833 Fax: (978) 356-3465  
E-Mail: ocmulgee@tiac.net

## **17 Woodbury Lane Acton, Massachusetts**

### Structural Conditions Report October 26, 1998

#### **General Description of 17 Woodbury Lane**

The Woodbury Lane house is a one and one-half story, wood-framed building near the Acton town center. It is roughly L-shaped in plan with an early, 1790's section facing the street and relatively modern additions at the back and south end of the early section. The layout of the foundation walls in the small, partial basement suggests that the original house consisted only of room 110 (as shown in the Turk Tracey & Larry drawing A1) plus an ell off the northeast corner of room 110 (under room 116 and half of room 115). The first floor framing over this basement is characteristic of the late eighteenth and early nineteenth centuries. However, the roof framing over the earliest area (above rooms 203 and 204) is more characteristic of the mid-nineteenth century, thereby suggesting that the second floor may be a later addition. The kitchen and dining room area (103 and 107) is a modern addition linking the early house to a former garage fitted out as a family room (room 101).

Structurally, the partial basement has fieldstone walls and floor framing consisting of wood joists, beams and rafters. Most of the framing is characteristic of the period of its construction except that the second floor framing over the dining room (107) is of heavy timbers salvaged from another, older building.

The Woodbury Lane house was inspected on October 20, 1998 by Wayne C. King, P.E. of Ocmulgee Associates, Inc. The weather that day was dry, cool and sunny.

#### **Description and Condition of Structural Systems.**

*Rafters and Sheathing.* The oldest area of roof over bedrooms 203 and 204 is framed with 3x5 rough sawn full dimension rafters spaced 28 inch apart. These rafters are supported by low knee walls and are tied together with 2x5 collar ties that also act as floor joists for the shallow attic. See the detail on sketch SK1. The upper sections of the rafters visible in the attic are in excellent condition. However, the section of rafter between the wall and attic joist is highly stressed such that the calculated load capacity is only about 15 pounds per square foot (psf). With the roof weighing between 8 and 10 psf, this allows only 5 to 7 psf for a snow load, compared to the 35 psf required by the Massachusetts State Building Code (780CMR).

The area of roof built in the 1970's (above bedroom 207) has modern, dressed 2x8 rafters spaced 16 inch apart. Also in excellent condition, they are braced at their feet by the attic floor joists and have a total capacity to support the weight of the roof and the 35 psf snow load required by the Code.

The roof sheathing at the oldest area consists of nominally one inch thick boards. However, the boards on the north slope are different than those on the south slope. The former are uniformly dimensioned and tightly spaced while the latter are irregular, with wide gaps between them. The irregularity is from the edges not being sawn; that is, each board is the width of the tree it came from, complete with the bark remaining on its edges.

These boards are similar to some of the floor sheathing seen in the basement. This again suggests that the original 1790's house received a major renovation in the mid-nineteenth century.

The roof framing over the other areas of the house was concealed by ceilings.

Recommendation: Let in new 2x8 rafters at 12 inch centers between the existing 2x5's. This will require removing the present ceilings and lowering them slightly.

*Second Floor Framing.* Except for the exposed framing over the kitchen and dining room (103 and 107), the second floor framing was concealed by ceilings. The visible framing was obviously intended to create the effect of period framing, heavy framing. However, this type of framing occurred much earlier than would have been typical in 1790 and the framing itself appears to be mid to late nineteenth century sawn timbers salvaged from a mill structure. The beams consist of 8x8 timbers spaced 42 inches apart and the central "summer" beam is a 10x12. Although the timbers are clean and in excellent condition, their faces are notched with joist pockets from their former use. These notches reduce the effective cross-sectional area with respect to the flexural strength of the beams. This second floor framing can support a total load of about 75 psf; deducting 15 psf for the weight of the floor, it can support 60 psf live load. This live load capacity is more than the 50 psf required by the Code for an office.

*First Floor Framing.* The first floor framing over the partial basement consists of a mixture of member sizes, some of which are heavily damaged but reinforced with modern members. The area under room 110 has a 7x7 hand hewn beam and 3x4 joists spaced 20 inches apart. The joists are pocketed full depth into the sides of the beam and the beam is mortised into the sill at the front (west side) of the house and into a beam toward the rear (east side) of the basement. This area is in generally good condition although there is some punkiness in the corners of the beam. This area can support a total load of about 60 psf; deducting 15 psf for the weight of the floor, it can support 45 psf live load. This capacity is acceptable for the first floor of a residence but is somewhat less than the 50 psf required for an office.

There is a double beam running north and south about three or four feet west of the back foundation wall. One of the beams appears to be a former sill (it even has some rot on what would have been its outer edge) and suggests that the original house was just one-room about the size of room 110, or, at least, that the original basement was only the size of room 110.

This area has irregular floor sheathing with wide spaces between the boards. This flooring is similar to the roof sheathing on the south slope of the old roof.

The area within the three feet or four foot area along the back foundation wall is framed with 3x4 joists spaced 24 inches apart. Although they appear similar to those under room 110, they are extensively rotted and damaged by powder post beetles. The second beam of the pair that defines the west edge of this area is crushed where it sits on the foundation; this corresponds to the low area at the door leading into the room 110 from the kitchen.

The floor framing in this area under rooms 109, 113, 116 and half of 115 essentially needs to be re-framed in order to support confidently any load required by the Code.

The temperature in the basement on the day of the inspection was 61 degrees F. and the ambient humidity was 29 percent. The moisture content of the wood in the basement was generally about 17 percent except that it was 20 percent near the bottom of the small post. These moisture contents are relatively high and indicate that

the wood is still drying out from the high humidity of the summer. The bottom of the 7x7 wood post directly under the bathtub in room 113 is saturated with moisture, is punky and is damaged by powder post beetles.

Recommendation: Replace all of the wood posts in the basement with steel concrete-filled lally columns. Replace heavily damaged framing with new 2x joists and laminated veneer lumber (LVL) beams. Where space permits, leave existing, intact framing and add new columns to reduce the spans of any insufficient beams.

The floor framing under the eastern half of room 115 and under the kitchen and dining room consists of modern 2x6 joists spaced 16 inches apart. These areas are over unventilated crawl spaces but the framing appears to be in good condition. These areas can support a total load of psf; deducting psf for the weight of the floor, it can support psf live load. This capacity is acceptable for the first floor of a residence but is somewhat less than the 50 psf required for an office.

*Foundations.* The foundation walls in the basement generally consist of well-mortared fieldstone. At the east exterior wall, 8 inch wide by 12 inch high brickwork is superimposed on the fieldstone and at the west exterior wall, 8 inch wide by 12 inch high granite is superimposed on the fieldstone. Elsewhere, the walls are fieldstone for their full six foot height. These walls are in good condition; they need to be cleaned but little or no repointing is needed.

The foundations for most of the house are barely visible on the outside. The sills are near or at the ground level and are vulnerable to moisture and insects. Although no damage is visible, it should be expected that some of the sills are damaged and may need to be replaced.

*Conclusions.* Based on the inspection of the house and the above descriptions, the following conclusions can be made:

1. The condition of structural materials is generally good except for certain first floor joists, beams, sills and posts.
2. In spite of its good condition, the floor framing is presently adequate only for residential use. The oldest roof framing is inadequate for supporting the full snow load required by the Building Code.
3. Damaged first floor framing can be replaced relatively easily.
4. Inadequate framing can be strengthened by adding posts or by sistering on new members.
5. Some destructive investigation is needed to verify the conditions of inaccessible framing in crawl spaces, second floors, roofs and sills. This could be done during the design phase for the re-use of the space or when construction is underway.

**End of Report**

**17 Woodbury Lane  
Acton, Massachusetts**

***Methodology and Assumptions***

The observations reported below are the result of a site visit conducted on 20 October 1998. During this site visit the building systems were inspected visually and opinions on the conditions and remaining life of those systems were formed based on the inspector's experience and judgement. Tests of equipment efficiency were not performed, nor were any pieces of equipment opened or dismantled for more detailed observation. While we believe that the observations presented here can be relied on for planning purposes, we recommend that licensed electricians, plumbers and heating technicians be employed to conduct detailed tests prior to the reuse of any of the building equipment.

***Electrical***

**Observations**

The electrical service appears to have been renewed within the last ten or fifteen years. The main service panel is an ITE 200 amp, 28 circuit type with three spare spaces. Figure One shows this panel. Of the twenty five circuits in use, three are of the Ground Fault Interrupter (GFI) type. The panel is rusty inside and out, perhaps from basement moisture, although there is some evidence of water leaking from the outside of the house. The installation of the panel and the arrangement of the service entrance wiring will allow wind driven water to enter the panel. Figure two shows the service entrance. All circuits in the panel appear to be labeled.

Wiring varies from relatively new plastic sheathed cable (commonly known as "Romex") to flexible armored cable (often called "BX"). There is also some older style insulation which may contain asbestos. The BX wiring should not be used in wet locations and does show some signs of rust. Wiring is poorly routed and not well supported by staples; some is abandoned and it is difficult to determine which is in use and which is not. While ground wires were apparent in all of the open fixtures that were inspected, we suspect that not all of the wiring is properly grounded simply based on the age of the installation.

There is an adequate distribution of outlets in the rooms, though the quality of the wiring serving it is suspect as described above. No outside outlets were noticed.

Lighting is largely by table lamps though there are a few hallway lights and ceiling lights in the master bedroom and dining room. Exterior lighting covers part of the property, namely the rear of the building. There is no lighting at the front of the building or in the driveway area.

Cable television and telephone enter the building in the front as the power does. The service entrances are poorly done and subject to water intrusion as the electric service is. Some of the cable TV wiring runs outside the building and enters through a drilled hole



FIGURE 1



FIGURE 2

in the exterior wall. This arrangement will allow water and cold air to enter the building.

### Recommendations

The 200 amp service should be adequate for most program requirements. However, the service entrance should be improved to make it more weathertight and the wiring should be replaced to insure the electrical integrity of the system and proper grounding. Additional outlets should be installed at the exterior of the building, at least at the rear and near the bulkhead. Exterior lighting should be supplemented to allow identification of the property from the street and from the library parking lot. The driveway, which will doubtless be used for parking should also be lit. A lighting control system consisting of electronic timers would ensure proper operation on exterior and interior security lighting. Interior lighting changes should be based on the selected program, but would be minor in any case.

New cable TV and telephone service entrances are required. Some program options would suggest the addition of a high speed data link as well. This may be copper or fiber, or may be part of the cable TV connection.

### Plumbing

#### Observations

The water meter is set in an opening in the concrete floor, which was full of water at the time of the site inspection. See Figure Three for a view of the water meter pit. The meter has been removed. The city water service may be  $\frac{3}{4}$ " in size, but all distribution piping from the meter out is  $\frac{1}{2}$ " in size. This is too small to allow simultaneous use of plumbing fixtures and is inadequate for any residential use. Most of the visible piping is copper although there is some galvanized leading to one of the sillcocks. Given the age of the house it would not be out of the question to have some lead piping in the building. Solder types are difficult to determine by visual inspection, but again the age of the building suggest that there may be 50/50 lead-tin solder present in the piping. The cold water piping is run "helter-skelter" and has many turns, elbows and valves that serve no apparent purpose. Clearly it was added to over time in whatever manner was the easiest to do at the instant.

The water heater is a gas fired unit of approximately 50 gallons. It is fairly new and in good exterior condition. All hot water distribution piping is also  $\frac{1}{2}$ ". Natural gas is also supplied to a clothes dryer in the kitchen area.

The master bath on the second floor has a shower, sink and toilet. A second sink and toilet are installed in a closet area between the other two second floor bedrooms. The first floor contains a full bath with sink, toilet and tub, a kitchen and the laundry with washer and dryer.



Figure 3



Figure 4

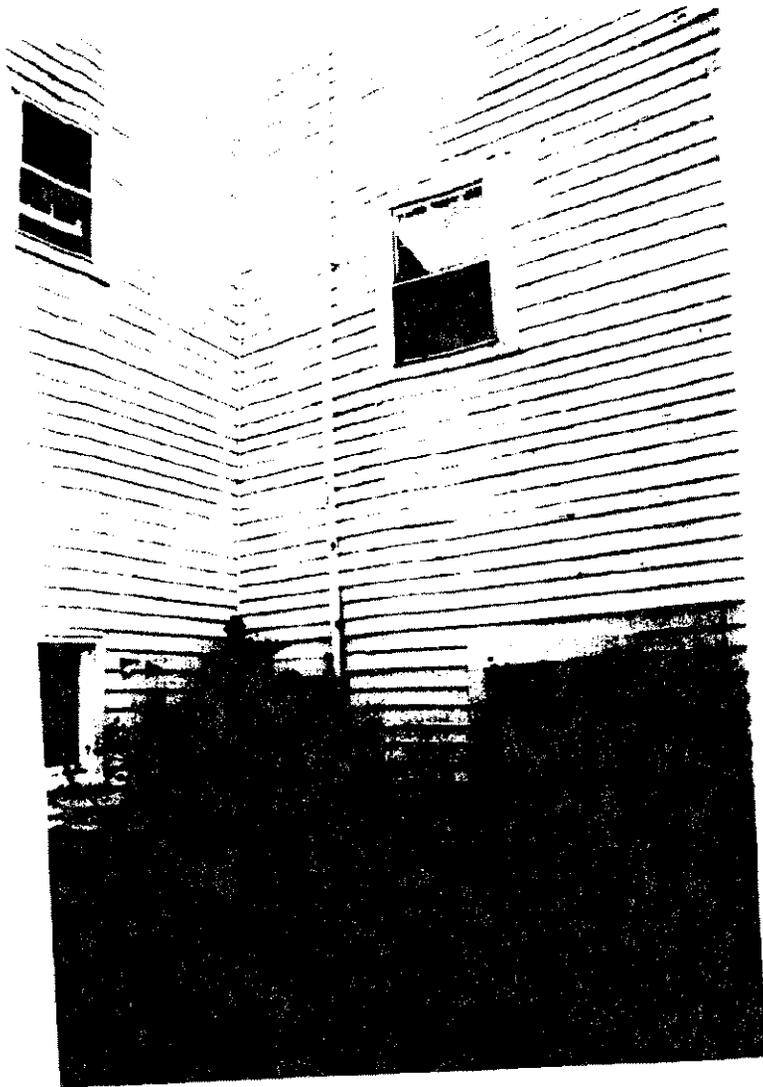


Figure 5

Waste piping is a mix of 1 1/2" copper, 3" PVC and 4" cast iron. The waste system has been added to over time in whatever manner was expeditious at that time. In the basement some of the waste piping pitches back into the house, creating a pocket for waste to collect in. See Figure Four for a view of this condition. The waste piping exits the building less than a foot below grade at the rear. This leaves the waste system subject to freezing in cold weather. The piping continues to a septic system at the rear of the driveway. The manholes in this system suggest that it is relatively new. We are told that with the new library construction at the rear of the property, the septic system has been interconnected with a larger one installed for the library. In that event, the capacity of the system should not be a problem.

Venting of the plumbing system is achieved through two vents through the roof and an exterior vent that runs up an outside wall, but terminates below the roof line. The latter vent is shown in Figure Five.

Three sillcocks are located one in front of the building, one near the bulkhead and one at the rear of the building. A fire hydrant is located within approximately fifty feet of the property.

### Recommendations

The cold water mains should be re-piped with 3/4" copper pipe and in a more direct manner than is now done. The water heater should be reused but the hot water piping should also be re-piped. The waste and vent piping must also be redone to match the new program requirements. The natural gas piping should be redone to match new requirements.

### Heating

#### Observations

The heating boiler is a fairly new gas fired Utica with a Beckett oil fired power burner. The boiler IBR output is 152,200 btuh maximum. A 1.25 gallon per hour 80B nozzle is installed. The boiler installation is pictured in Figures Six and Seven. The boiler sizing appears to be adequate for a house of this size and age. A 275 gallon oil tank is located at the far end of the basement. The tank shows signs of substantial surface rust as a result of the high humidity in the basement. Figure Eight depicts the oil tank. The oil piping appears to be new and in good condition. The fill and vent lines are located outside adjacent to the bulkhead.

There are three zone circulators at the boiler, each piped with copper pipe and in good condition. Zoning is difficult to determine because there are four thermostats in the building. Room 101 contains one of those thermostats but has no heating elements. The heating is all by baseboard radiation except for one convector in the kitchen entry. The amount of radiation appears to be adequate. Evidence of a now defunct warm air system exists in the basement in the form of some sheet metal ductwork and in the bedrooms in the form of a few registers.

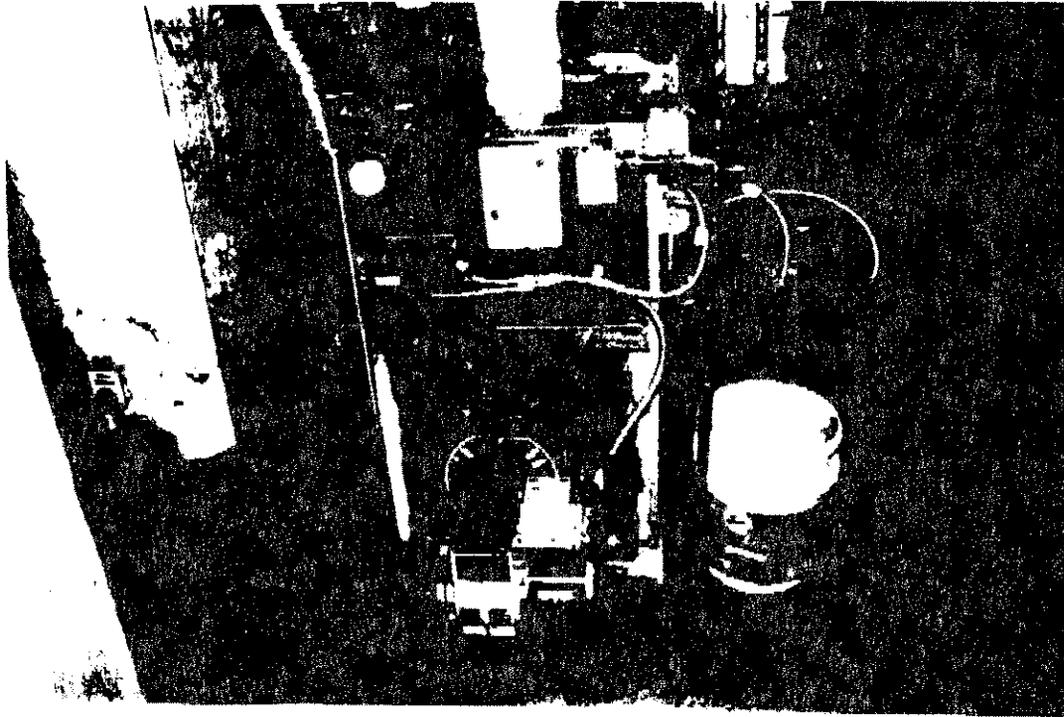


Figure 6

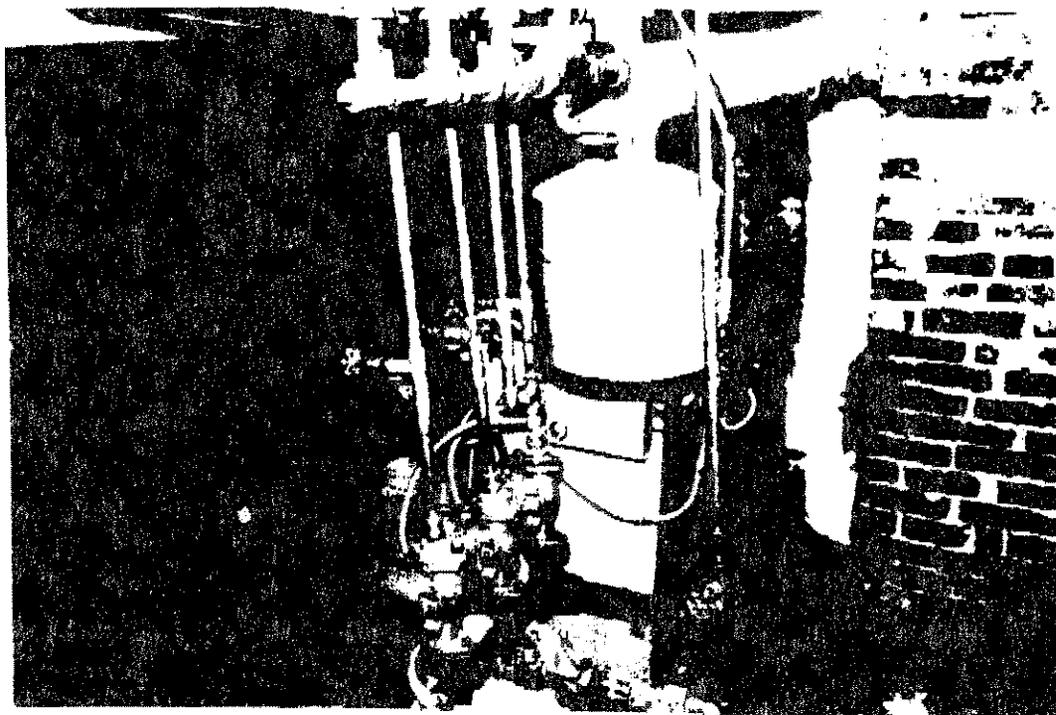


Figure 7



FIGURE 8

### Recommendations

The heating system is in good condition and need be changed only to support new program requirements. A conversion from oil to gas is recommended if gas is available. If it is not, then the oil tank should be replaced, or painted if it is determined to be sound.

November 17, 1998

Mr. Tobin Tracey  
Turk, Tracey & Larry Architects, LLC  
110 Exchange Street  
Portland, ME 04101

RE: LFR Project No. 104-80445  
Asbestos/Regulated Materials Survey at  
17 Woodbury Lane  
Acton, Massachusetts

Dear Mr. Tracey:

Levine·Fricke·Recon (LFR) was retained by Turk, Tracey & Larry Architects, LLC to conduct an asbestos survey at 17 Woodbury Lane Acton, Massachusetts. LFR collected and analyzed samples of representative suspect asbestos-containing homogeneous applications. LFR's scope of work is subject to the Limitations and Service Constraints attached hereto.

LFR's representative, Mr. Paul Hoffman, conducted the survey on October 20, 1998. LFR identified a total of nine- (9) suspect asbestos containing homogeneous applications. Of the nine homogeneous applications identified, **four were determined to be asbestos-containing**. A total of twenty two (22) bulk samples were collected. The remaining five (5) homogeneous applications were determined to be **non-asbestos**.

### Methodology

#### **Survey Approach:**

Suspect ACM was identified based on a walk-through of accessible areas and materials accessed through minimal demolition activities. Suspect materials were divided into "Homogeneous Applications", building materials which were determined by the inspector to be homogeneous based on their color, texture, and age. A representative number of samples were collected for each Homogeneous Application.

Bulk material samples were collected in "Gelman" footed petri dishes or similar, and sealed for transport to the laboratory. Each sample collected or analyzed by LFR personnel is assigned its own unique bar coded number. All samples are collected, analyzed and stored under strict chain-of-custody protocol.

The following are the Homogeneous Application symbols and other symbols used for identification in this report:

**T** = Thermal System Insulation

**M** = Miscellaneous Materials

**S** = Surfacing Materials (Troweled or Spray-Applied)

**S.F.** = Square feet

**L.F.** = Linear feet

### **Asbestos Analytical Methods**

Material identification was performed using Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the Environmental Protection Agency (EPA) "Interim Method of the Determination of Asbestos in Bulk Insulation Samples" (EPA-600-M4-82-020). Percentage estimates of each material's components are based on the analyst's best judgment following PLM/DS analysis and examination with a stereoscope. PLM/DS analysis was conducted at Sci-Lab Boston, Inc. (Sci -Lab) located at Eight School Street, Weymouth, MA 02189.

Sci-Lab is a member of the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP). Sci-Lab's NVLAP format laboratory analysis results and bulk sample summary are provided as Appendix C.

### **Asbestos Survey Findings**

The Homogeneous Application Summary Chart provided in the following text indicates:

1. LFR's Homogeneous Application designation for each identified suspect material;
2. A description of each material sampled;
3. The sampled material's location;
4. The number of samples collected for the material and quantity;
5. Shaded areas represent confirmed asbestos-containing materials.

**TABLE 1.0**  
**ASBESTOS HOMOGENEOUS APPLICATION SUMMARY CHART**  
 92 Lynnfield Street Peabody, MA

HOMOGENEOUS APPLICATION	MATERIAL DESCRIPTION	SAMPLED MATERIAL LOCATIONS	QUANTITY	SAMPLE NUBERS	RESULT	ABATEMENT COST
M-01	TRANSITE BOARD MATERIAL	BASEMENT ABOVE BOILER	50 s.f.	501561	35% ACBM	\$250.00
M-02	WIIRING COVERING	BASEMENT	25 s.f.	501564	NAD	N/A
M-03	DRYWALL THROUGHOUT THE NEWER SECTION	FIRST & SECOND FLOORS	3,600 s.f.	501567, 501569	NAD	N/A
M-04	BRICK PATTERN LINOLEUM FLOORING	KITCHEN & DINING ROOM	500 s.f.	501574, 501575	20% ACBM	\$9000.00
M-05	EXTERIOR WINDOW GLAZING	EXTERIOR OF THE HOUSE	1,000 s.f.	501581, 501582	NAD	N/A
S-01	FLUE PATCHING MATERIAL	AROUND BOILER & HOT WATER HEATER FLUE PIPE TO CHIMNEY CONNECTIONS	2 s.f.	501562, 501563	8% ACBM	\$100.00
S-02	HORSE HAIR PLASTER	THROUGHOUT THE OLDER SECTIONS OF THE BUILDING	700 s.f.	501565, 501576, 501577	NAD	N/A
S-03	JOINT TAPE & COMPOUND	THROUGHOUT THE NEWER SECTIONS OF THE HOUSE	3,600 s.f.	501566, 501568, 501570, 501572	3% ACBM	\$10,000.00
S-04	TEXTURED WALL & CEILING MATERIAL	FIRST FLOOR ROOM #112	200 s.f.	501579, 501580	NAD	N/A
<b>ASBESTOS REMOVAL COST ESTIMATE</b>					<b>\$ 19,350.00</b>	

**Recommendations**

LFR recommends the asbestos-containing materials which may be disturbed during the planned demolition's activities, be removed by a licensed asbestos abatement contractor utilizing state-of-the-art work procedures and in accordance with all state, federal, and local regulations.

If suspect materials that are not referenced in this report are identified during demolition activities, LFR recommends that the materials be sampled and analyzed to confirm or deny the presence of asbestos prior to disturbance of the materials.

Mr. Tobin Tracey  
Turk, Tracey & Larry Architects, LLC  
11/17/98

**LFR estimates the cost to remove asbestos containing building materials to be approximately \$19,350.00.**

**Regulated Materials Investigation**

# of Containers	Type of Container/Type of Regulated Material	Size/Quantity	Location in House
1	Can/Cleaner Methanol Petroleum Distillates, Methaline Chloride	Pint 1/2 Full	Kitchen
2	Can/Acrylic Latex Paint	Gallon Full	Basement
2	Can/Primer Spray Paint	12 Once Can 3/4 Full	Basement
1	Can/Alkyd Paint	Gallon 3/4 Full	Basement
**1	Metal Oil Fuel Cell	200 Gallon Appears to be Empty	Basement

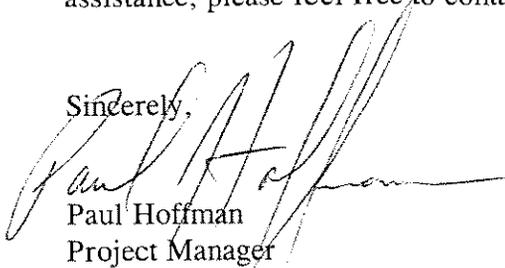
**\*\* Should be verified before disturbing**

**Lead Paint (TCLP) samples should be collected before any demolition activities are planned as per OSHA general industry regulations for demolition or disposal.**

In general RCRA defines the maximum allowable concentration of lead for the toxicity characteristic as 5.0 milligrams/liter (mg/L). Therefore, samples which contain greater than 5.0 mg/L of lead must be handled, stored, treated and disposed of as a hazardous waste in accordance with EPA and Massachusetts Department of Environmental Protection (DEP) Regulations.

Should you have any further questions regarding the aforementioned or if LFR can be of further assistance, please feel free to contact myself directly.

Sincerely,



Paul Hoffman  
Project Manager

Enclosures

G:\104-80445



FULL SERVICE ENVIRONMENTAL LABORATORIES

**A CERTIFIED MINORITY BUSINESS ENTERPRISE**

**SCILAB BOSTON, INC.**

8 SCHOOL STREET  
WEYMOUTH, MA 02189

TEL: (781) 337-9334 • FAX: (781) 337-7642

October 21, 1998

Levine-Fricke- Recon Environmental Corp.  
Attn: Mr. Hoffman  
194 Forbes Road  
Braintree, MA 02184

RE: Levine-Fricke- Recon Environmental Corp.  
Job Number 98108078  
P.O. # 104-80445  
104-80445; 17 Woodbury Lane, Acton MA

Dear Mr. Hoffman:

Enclosed are the results for PLM asbestos analysis of the following Levine-Fricke- Recon Environmental Corp. samples received at SCILAB on Tuesday, October 20, 1998, for a 5 day turnaround:

501561, 501562, 501563, 501564, 501565, 501566, 501567, 5015568, 5015569, 501570, 501571, 501572, 501573, 501574, 501575, 501576, 501577, 501578, 501579, 501580, 501581, 501582

The 22 samples contained in petri dishes were shipped to SciLab via Courier. These samples were prepared and analyzed according to the EPA Interim Method (40 CFR 763, subpt F, App. A). The required analytical information, analysis results, analyst signature and laboratory identification is contained in the Analyst's Report.

This report relates ONLY to the sample analysis expressed as percent asbestos. SciLab assumes no responsibility for customer supplied data such as "sample type", "location", or "area sampled". This report must not be used to claim product endorsement by SciLab, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology Accreditation requirements, mandates that this report must not be reproduced, except in full, and with the approval of the laboratory.

SciLab appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,



John J. Sulkowski  
Laboratory Director



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## PLM Bulk Asbestos Report

Levine-Fricke- Recon Environmental  
Corp.  
Attn: Paul Hoffman  
194 Forbes Road  
Braintree, MA 02184

Date Received 10/20/98

Date Examined 10/21/98

SciLab Job No. 98108078

P.O. # 104-80445

Page 1 of 6

RE: 104-80445; 17 Woodbury Lane, Acton MA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
501561 M-01	98108078-01 <b>Location:</b> Basement Above Boiler	<b>Yes</b>	35 %
<b>Description:</b> Grey, Homogeneous, Cementitious, Transite Board <b>Asbestos Types:</b> Chrysotile 35. % <b>Other Material:</b> Non-fibrous 65. %			
501562 S-01	98108078-02 <b>Location:</b> Basement At Chimney To Hot Water Heater Vent Pipe Connection	<b>Yes</b>	8 %
<b>Description:</b> Grey/White/Red, Homogeneous, Cementitious, Flue Patching Material <b>Asbestos Types:</b> Chrysotile 8. % <b>Other Material:</b> Non-fibrous 92. %			
501563 S-01	98108078-03 <b>Location:</b> Basement At Chimney To Boiler Vent Pipe Connection		NA/PS
<b>Description:</b> Flue Patching Material <b>Asbestos Types:</b> <b>Other Material:</b>			
501564 M-02	98108078-04 <b>Location:</b> Basement Near Stair Up To First Floor	<b>No</b>	NAD
<b>Description:</b> Black/White, Homogeneous, Wiring Insulation/Casing <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 40. %, Non-fibrous 60. %			
501565 S-02	98108078-05 <b>Location:</b> Basement To 1st Floor Stairwell	<b>No</b>	NAD
<b>Description:</b> Grey, Homogeneous, Cementitious, Horse Hair Plaster/1 Layer <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 15. %, Non-fibrous 85. %			



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## PLM Bulk Asbestos Report

Levine-Fricke- Recon Environmental  
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194 Forbes Road  
Braintree, MA 02184

**Date Received** 10/20/98

**Date Examined** 10/21/98

**SciLab Job No.** 98108078

**P.O. #** 104-80445

**Page 2 of 6**

**RE:** 104-80445; 17 Woodbury Lane, Acton MA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
501566 S-03	98108078-06.1 <b>Location:</b> 2nd Floor Closet At End Of Hall In Older Section	<b>No</b>	NAD
<b>Description:</b> Brown, Homogeneous, Joint Tape & Compound <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 85. %, Non-fibrous 15. % <b>Comment:</b> Tape.			
501566 S-03	98108078-06.2 <b>Location:</b> 2nd Floor Closet At End Of Hall In Older Section	<b>Yes</b>	3 % <sup>2</sup>
<b>Description:</b> White, Homogeneous, Cementitious, Joint Tape & Compound <b>Asbestos Types:</b> Chrysotile 3. % <b>Other Material:</b> Cellulose 5. %, Non-fibrous 92. % <b>Comment:</b> White joint compound.			
501567 M-03	98108078-07 <b>Location:</b> 2nd Floor Closet At End Of Hall In Older Section	<b>No</b>	NAD
<b>Description:</b> Brown/Grey, Homogeneous, Cementitious, Drywall <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 15. %, Non-fibrous 85. %			
5015568 S-03	98108078-08 <b>Location:</b> 2nd Floor Bedroom #203	<b>No</b>	NAD <sup>1, 2</sup>
<b>Description:</b> , Heterogeneous, Joint Tape & Compound <b>Asbestos Types:</b> <b>Other Material:</b> <b>Comment:</b> Insufficient sample for analysis. No joint compound in sample.			



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## PLM Bulk Asbestos Report

Levine-Fricke- Recon Environmental  
Corp.  
Attn: Paul Hoffman  
194 Forbes Road  
Braintree, MA 02184

Date Received 10/20/98

Date Examined 10/21/98

SciLab Job No. 98108078

P.O. # 104-80445

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RE: 104-80445; 17 Woodbury Lane, Acton MA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
5015569	98108078-09	No	NAD

M-03 Location: 2nd Floor Bedroom #203

Description: Brown/Grey, Homogeneous, Cementitious, Drywall

Asbestos Types:

Other Material: Cellulose 15. %, Non-fibrous 85. %

501570	98108078-10.1	No	NAD
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S-03 Location: 2nd Floor Ceiling Bedroom #207

Description: Brown, Homogeneous, Joint Tape & Compound

Asbestos Types:

Other Material: Cellulose 95. %, Non-fibrous 5. %

Comment: Tape.

501570	98108078-10.2	Yes	3 %
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S-03 Location: 2nd Floor Ceiling Bedroom #207

Description: White, Homogeneous, Cementitious, Joint Tape & Compound

Asbestos Types: Chrysotile 3. %

Other Material: Cellulose 5.5 %, Non-fibrous 89.5 %

Comment: White joint compound.

501571	98108078-11	No	NAD
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M-03 Location: 2nd Floor Ceiling Bedroom #207

Description: Grey, Homogeneous, Cementitious, Drywall

Asbestos Types:

Other Material: Cellulose 15. %, Non-fibrous 85. %



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Date Examined 10/21/98

SciLab Job No. 98108078  
P.O. # 104-80445  
Page 4 of 6

RE: 104-80445; 17 Woodbury Lane, Acton MA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
501572 S-03	98108078-12 <b>Location:</b> 1st Floor Kitchen Wall		NA/PS
<b>Description:</b> Joint Tape & Compound <b>Asbestos Types:</b> <b>Other Material:</b>			
501573 M-03	98108078-13 <b>Location:</b> 1st Floor Kitchen Wall	No	NAD
<b>Description:</b> Brown/Grey, Homogeneous, Cementitious, Drywall <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 15. %, Non-fibrous 85. %			
501574 M-04	98108078-14 <b>Location:</b> 1st Floor Kitchen	Yes	20 %
<b>Description:</b> Red/Brown, Homogeneous, Brick Pattern Linoleum <b>Asbestos Types:</b> Chrysotile 20. % <b>Other Material:</b> Cellulose 30. %, Non-fibrous 50. %			
501575 M-04	98108078-15 <b>Location:</b> 1st Floor Next To Fireplace		NA/PS
<b>Description:</b> Brick Pattern Linoleum <b>Asbestos Types:</b> <b>Other Material:</b>			
501576 S-02	98108078-16 <b>Location:</b> 1st Floor Room #109	No	NAD
<b>Description:</b> Grey, Homogeneous, Cementitious, Horse Hair Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 8. %, Non-fibrous 92. %			



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## PLM Bulk Asbestos Report

Levine-Fricke- Recon Environmental  
Corp.  
Attn: Paul Hoffman  
194 Forbes Road  
Braintree, MA 02184

**Date Received** 10/20/98 **SciLab Job No.** 98108078  
**Date Examined** 10/21/98 **P.O. #** 104-80445  
**Page 5 of 6**  
**RE:** 104-80445; 17 Woodbury Lane, Acton MA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
501577 S-02	98108078-17 <b>Location:</b> 1st Floor Room #110	<b>No</b>	NAD
<b>Description:</b> Grey, Homogeneous, Cementitious, Horse Hair Plaster <b>Asbestos Types:</b> <b>Other Material:</b> Animal hair 8. %, Non-fibrous 92. %			
501578 S-04	98108078-18 <b>Location:</b> 1st Floor Room #112 Wall	<b>No</b>	NAD
<b>Description:</b> White, Homogeneous, Cementitious, Textured Wall Material <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 5. %, Mica 5. %, Non-fibrous 90. %			
501579 S-04	98108078-19 <b>Location:</b> 1st Floor Room #112 Ceiling	<b>No</b>	NAD
<b>Description:</b> White, Homogeneous, Cementitious, Textured Ceiling Material <b>Asbestos Types:</b> <b>Other Material:</b> Cellulose 2. %, Non-fibrous 98. %			
501580 S-04	98108078-20 <b>Location:</b> 1st Floor Room #112 Closet Wall	<b>No</b>	NAD
<b>Description:</b> White, Homogeneous, Cementitious, Textured Wall Material <b>Asbestos Types:</b> <b>Other Material:</b> Mica 15. %, Non-fibrous 85. %			
501581 M-05	98108078-21 <b>Location:</b> Rear Of House	<b>No</b>	NAD
<b>Description:</b> Off White, Homogeneous, Exterior Window Glazing <b>Asbestos Types:</b> <b>Other Material:</b> Non-fibrous 100. %			



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## PLM Bulk Asbestos Report

Levine-Fricke- Recon Environmental Corp.  
Attn: Paul Hoffman  
194 Forbes Road  
Braintree, MA 02184

Date Received 10/20/98  
Date Examined 10/21/98

SciLab Job No. 98108078  
P.O. # 104-80445  
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RE: 104-80445; 17 Woodbury Lane, Acton MA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
501582	98108078-22	No	NAD
M-05	Location: Front Of House		

Description: Off White, Homogeneous, Exterior Window Glazing  
Asbestos Types:  
Other Material: Non-fibrous 100. %

### Reporting Notes:

- (1) Insufficient sample for analysis.
- (2) Insufficient sample for accurate analysis.

Analyzed by: David W. Ralbovsky

\*NAD/NSD = no asbestos detected; NA = not analyzed; Bulk Asbestos Analysis per 40 CFR 763, Subpart F, Appendix A and ELAP Analysis Protocols 198.1/198.4 for New York samples; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This report relates ONLY to the items tested.

Reviewed by: \_\_\_\_\_



98108078

LEVINE\*FRICKE\*RECON  
FIELD SAMPLING SHEET

PAGE 1 of 6

PROJECT TITLE: 17 WOODBURY LANE  
ACTON, MA

PROJECT #: 104-80445

DATE SAMPLED: 10/20/98

SAMPLING TECHNICIAN:

HOMOGENEOUS APPLICATION: M-01

LEVINE\*FRICKE\*RECON  
501561  
APPLICATION # \_\_\_\_\_

SAMPLE DESCRIPTION: TRANSITE BOARD

SAMPLE LOCATION: BASEMENT ABOVE BOILER

M/DS RESULTS:

HOMOGENEOUS APPLICATION: ~~M-01~~ S-01

LEVINE\*FRICKE\*RECON  
501562  
APPLICATION # \_\_\_\_\_ 2

SAMPLE DESCRIPTION: FLUE PATCHING MATERIAL

SAMPLE LOCATION: BASEMENT AT CHIMNEY TO HOT WATER HEATER VENT PIPE CONNECTION

M/DS RESULTS:

HOMOGENEOUS APPLICATION: S-01

LEVINE\*FRICKE\*RECON  
PI 501563  
APPLICATION # \_\_\_\_\_ 3

SAMPLE DESCRIPTION: FLUE PATCHING MATERIAL

SAMPLE LOCATION: BASEMENT AT CHIMNEY TO BOILER VENT PIPE CONNECTION

M/DS RESULTS:

HOMOGENEOUS APPLICATION: M-02

LEVINE\*FRICKE\*RECON  
PL 501564  
APPLICATION # \_\_\_\_\_ 4

SAMPLE DESCRIPTION: ELECTRICAL WIRING INSULATION/CASING

SAMPLE LOCATION: BASEMENT NEAR STAIR UP TO FIRST FLOOR

M/DS RESULTS:

98108078

LEVINE\*FRICKE\*RECON  
FIELD SAMPLING SHEET

PAGE 2 of 6

PROJECT TITLE: 17 WOODBURY LANE  
ACTON, MA

PROJECT #: 104-80445

DATE SAMPLED: 10/20/98

SAMPLING TECHNICIAN:

MOGEOUS  
PLICATION: S-02

LEVINE\*FRICKE\*RECON  
PLA 501565 5

SAMPLE DESCRIPTION: HORSE HAIR  
PLASTER 1-LAYER ONLY

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: BASEMENT TO 1ST FLR STAIRWELL

ANALYSIS RESULTS:

MOGEOUS  
PLICATION: S-03

LEVINE\*FRICKE\*RECON  
PLA 501566 6

SAMPLE DESCRIPTION: JOINT TAPE +  
COMPOUND

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: 2ND FLOOR CLOSET AT END OF HALL IN  
WILDER SECTION

ANALYSIS RESULTS:

MOGEOUS  
PLICATION: M-03

LEVINE\*FRICKE\*RECON  
PLA 501567 7

SAMPLE DESCRIPTION: DRYWALL

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: SAME AS #501566

ANALYSIS RESULTS:

MOGEOUS  
PLICATION: S-03 *no sample*

LEVINE\*FRICKE\*RECON  
PLA 501568 8

SAMPLE DESCRIPTION: JOINT TAPE +  
COMPOUND

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: 2ND FLR BEDROOM #203

ANALYSIS RESULTS:

981 08078

LEVINE\*FRICKE\*RECON  
FIELD SAMPLING SHEET

PAGE 3 of 6

PROJECT TITLE: 17 WOODBURY LANE  
ACTON, MA

PROJECT #:  
104-80445

DATE SAMPLED:  
10/20/98

SAMPLING TECHNICIAN:

LOGENEOUS LOCATION: ~~DRYWALL~~ M-03

LEVINE\*FRICKE\*RECON  
PI 501569

~~501569~~

SAMPLE DESCRIPTION: DRYWALL

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: 2ND FLOOR BEDROOM #203

LABORATORY RESULTS:

LOGENEOUS LOCATION: ~~DRYWALL~~ JOINT TAPE + COMPOUND (S-03)

LEVINE\*FRICKE\*RECON

PI 501570 Tape 10.1

SAMPLE DESCRIPTION: JOINT TAPE + COMPOUND

APPLICATION # 501012

SAMPLE LOCATION: 2ND FLOOR CEILING BEDROOM #207

LABORATORY RESULTS:

LOGENEOUS LOCATION: M-03

LEVINE\*FRICKE\*RECON

PI 501571 || ~~501571~~

SAMPLE DESCRIPTION: DRYWALL

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: SAME AS #501570

LABORATORY RESULTS:

LOGENEOUS LOCATION: S-03 10.1  
SAMPLE DESCRIPTION: JOINT TAPE + COMPOUND 10.2

LEVINE\*FRICKE\*RECON

PI 501572 Tape 10.1  
12.5 10.2

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR KITCHEN WALL

LABORATORY RESULTS:

98108078

LEVINE\*FRICKE\*RECON  
FIELD SAMPLING SHEET

PAGE 4 of 6

PROJECT TITLE: 17 WOODBURY LANE  
ACTON, MA

PROJECT #:  
104-80445

DATE SAMPLED:  
10/20/98

SAMPLING TECHNICIAN:

BOGENEOUS LOCATION: M-03

LEVINE\*FRICKE\*RECON  
PLACE 501573

#13

SAMPLE DESCRIPTION: DRY WALL

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR KITCHEN WALL

WDS RESULTS:

BOGENEOUS LOCATION: ~~M-04~~

LEVINE\*FRICKE\*RECON

PI 501574

~~13~~  
14

SAMPLE DESCRIPTION: BRICK PATTERN  
MOLEUM FLOORING

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR KITCHEN

WDS RESULTS:

BOGENEOUS LOCATION: ~~M-04~~

LEVINE\*FRICKE\*RECON

PLA 501575

~~13~~ 15

SAMPLE DESCRIPTION: BRICK PATTERN  
MOLEUM FLOORING

APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR NEXT TO FIREPLACE

WDS RESULTS:

BOGENEOUS LOCATION: S-02

LEVINE\*FRICKE\*RECON

PLA 501576

~~13~~ 16

SAMPLE DESCRIPTION: HORSE HAIR

APPLICATION # \_\_\_\_\_

PLASTER

SAMPLE LOCATION: 1ST FLR ROOM #109

WDS RESULTS:

LEVINE\*FRICKE\*RECON  
FIELD SAMPLING SHEET

PAGE 5 of 6

PROJECT TITLE: 17 WOODBURY LANE  
ACTON, MA PROJECT #: 104-80445 DATE SAMPLED: / / 98

SAMPLING TECHNICIAN:

MOGENEOUS APPLICATION: S-02 LEVINE\*FRICKE\*RECON 501577 17

SAMPLE DESCRIPTION: HORSE HAZ WALL PLASTER APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR Room #110

WDS RESULTS:

MOGENEOUS APPLICATION: S-04 LEVINE\*FRICKE\*RECON 501578 18

SAMPLE DESCRIPTION: ~~ARMOR~~ TEXTURED WALL SEALING MATERIAL APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR RM #112 WALL

WDS RESULTS:

MOGENEOUS APPLICATION: S-04 LEVINE\*FRICKE\*RECON 501579 19

SAMPLE DESCRIPTION: TEXTURED CEILING MATERIAL APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR ROOM #112 CEILING

WDS RESULTS:

MOGENEOUS APPLICATION: S-04 LEVINE\*FRICKE\*RECON 501580 20

SAMPLE DESCRIPTION: TEXTURED WALL MATERIAL APPLICATION # \_\_\_\_\_

SAMPLE LOCATION: FIRST FLOOR RM #112 CLOSET WALL

WDS RESULTS:

98108078

LEVINE\*FRICKE\*RECON  
FIELD SAMPLING SHEET

PAGE 6 OF 6

PROJECT TITLE: 17 WOOD BURY LANE  
ACTON, MA

PROJECT #:  
104-80445

DATE SAMPLED:  
/ / 98

SAMPLING TECHNICIAN:

MOGENEOUS APPLICATION: M-05

LEVINE\*FRICKE\*RECON  
501581

APPLICATION # \_\_\_\_\_

SAMPLE DESCRIPTION: EXTERIOR  
WINDOW GLAZING

SAMPLE LOCATION: REAR OF HOUSE

W/DS RESULTS:

MOGENEOUS APPLICATION: M-05

LEVINE\*FRICKE\*RECON  
501582

APPLICATION # \_\_\_\_\_

SAMPLE DESCRIPTION: EXTERIOR  
WINDOW GLAZING

SAMPLE LOCATION: FRONT OF HOUSE

W/DS RESULTS:

MOGENEOUS APPLICATION:

PLACE SAMPLE LABEL HERE

SAMPLE DESCRIPTION:

SAMPLE LOCATION:

W/DS RESULTS:

MOGENEOUS APPLICATION:

PLACE SAMPLE LABEL HERE

SAMPLE DESCRIPTION:

SAMPLE LOCATION:

W/DS RESULTS:



H) EXCERPTS FROM 2010 CPA APPLICATION



Feasibility Study for the  
Selective Demolition and Renovation of:  
17 Woodbury Lane, Acton, Ma

Use Group: Business  
Construction Type: 5B  
Occupancy Load 19  
Gross Floor Area 950sf  
Height/stories 22'½

**SPECIFICATIONS:**

Demolition:

- Remove existing additions and foundation as indicated on the drawings.
- Remove all interior finishes down to structure.
- Remove all plumbing and electrical systems back to service.
- Remove heating and hot water systems back to appliance.
- Remove existing asbestos per Turk, Tracey, & Larry Study. (allow \$10,000)

Site: (Work by Town of Acton – cost not in construction estimate)

- Regrade around the building to allow 8" between top of grade and watertable trim.
- Respread topsoil and seed lawn.
- Provide an accessible asphalt walkway between the existing parking lot and the back entry. Approximate 50' long walk. The grade must be built up in between to provide level surface.
- Restripe existing parking lot to accommodate accessible parking space.
- Connect building soil pipe to the Library septic tank. Approximate 75' trench. Library system designed for connection per Turk, Tracey, & Larry Study.

Finishes:

- Floors: provide ½" underlayment all areas. Hardwood floor in Conference, Office, Foyer, finish with 3 coats poly. Tile in bath. Sheet vinyl in storage.
- Walls: ½" blueboard with skim coat finish, painted.
- Ceilings: ½ blueboard with skim coat finish painted. Exposed beams shall be cleaned.
- Trim: 3 ½" flatstock for windows and doors, 7 ½" for base. Painted
- Stairs: Oak treads and painted risers. Oak handrails and all stairs with painted balusters.

Windows & Doors:

- New windows to be Marvin Ultimate Double Hung wood window units with SDL grids and putty glazing bead.
- Existing windows, carry \$750 allowance per window for repairs.
- Exterior doors: Simpson fir, painted.
- Interior doors: Morgan pine, painted.

Insulation:

- Insulate roof with Icynene (R-38)
- Insulate exterior walls with Icynene (R-21)
- Insulate 1<sup>st</sup> Floor with fiberglass batts (R-30)

Electrical:

- Provide new electrical panel.
- Provide new outlets, switches, and light fixtures.
- Provide tele/data outlets in Conference and Office.

Mechanical:

- Existing 3 zone, oil-fired boiler and water heater to remain.
- Provide new plumbing fixtures and distribution & waste piping.
- Provide new hydronic baseboard heating system.
- Provide new air conditioning system.

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# ESTIMATE FOR CONSTRUCTION

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17 WOODBURY LANE  
ACTON, MA  
SEPT 30, 2010

Richard Carr Construction  
161 Park Road  
So. Chelmsford, Ma 01824  
Tel: 978-256-8029

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## CONSTRUCTION COST SUMMARY:

ITEM OF CONSTRUCTION	TOTAL
GENERAL REQUIREMENTS <i>Temp facilities &amp; equip, site protection, clean up &amp; trash removal, punch list</i>	6230
DEMOLITION & SITE WORK	44200
CONCRETE & MASONRY	13879
FRAMING & FINISH CARPENTRY, WINDOWS & DOORS	127617
THERMAL & MOISTURE PROTECTION <i>Insulation, roofing, siding &amp; exterior trim</i>	43738
FINISHES <i>Plastering, flooring, painting, tile</i>	42934
PLUMBING	7532
HEATING	9156
HVAC <i>Air conditioning, dehumidification, exhaust vents &amp; ducts</i>	15932
ELECTRIC, FIXTURES & NEW 200 AMP SERVICE	14952
<b>TOTAL CONSTRUCTION</b>	<b>326170</b>

## ALLOWANCES INCLUDED IN THE BASE BID:

1 ASBESTOS REMOVAL	10000
2 REPAIR EXISTING WINDOWS	9000
3 NEW WINDOW & DOOR ALLOWANCE	6400
4 HARDWARE ALLOWANCE	400
5 ELECTRIC & FIXTURES	7500
6 NEW 200 AMP O.H. SERVICE	2500
7 PLUMBING FIXTURES	500
8 TILE (MAT)	325
9 BATH VANITY & TOP	500

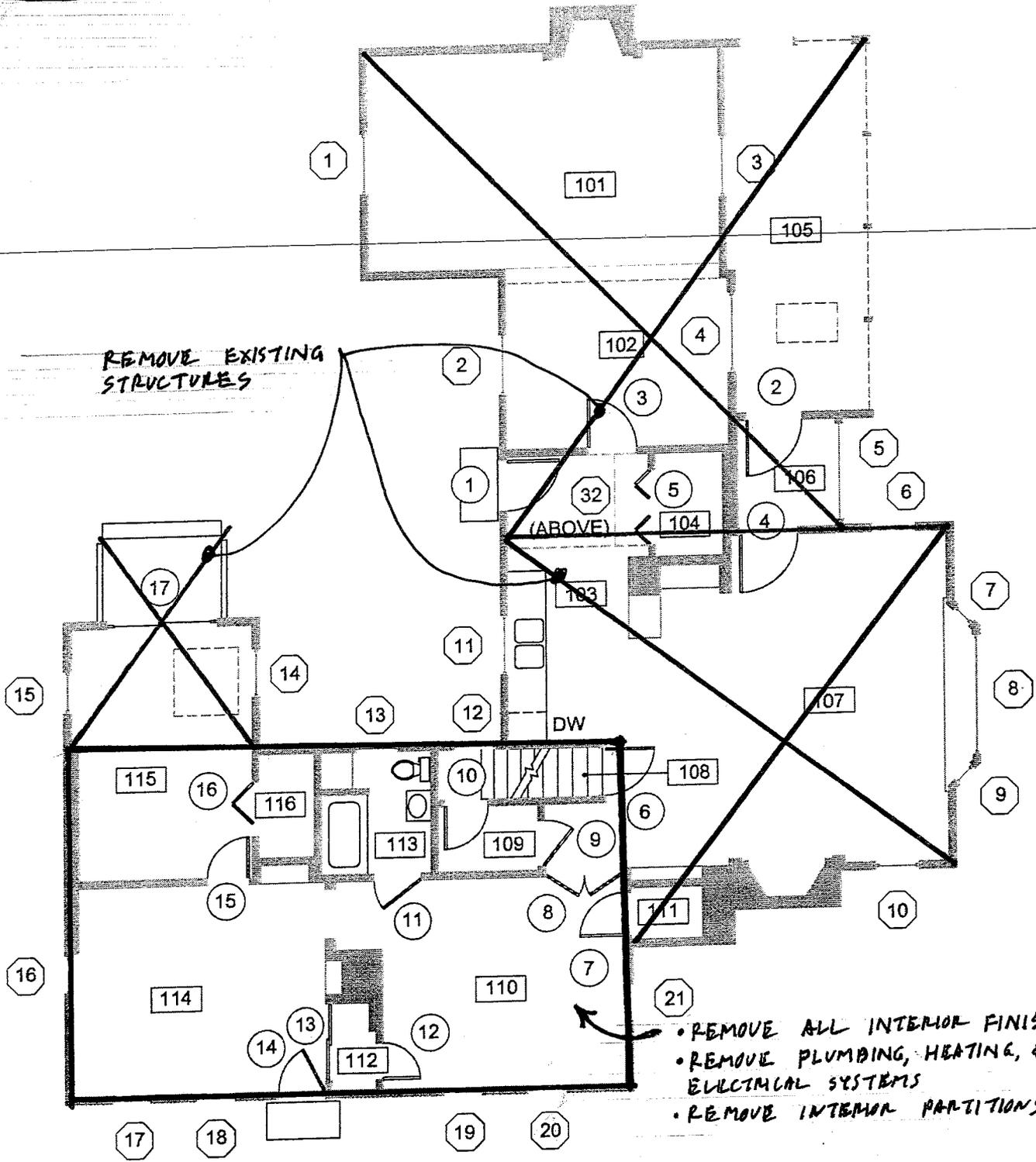
## CLARIFICATIONS/ASSUMPTIONS:

- 1 WALKS, DRIVES, GRANITE STAIRS, SOIL PIPE & SEWER, FINISH GRADE, LOAM & SEED BY TOWN
- 2 AIR CONDITIONING IS BASE SERIES CARRIER 1.5 TON ONE ZONE 13 SEER CONDENSER. DEHUMIDIFIER- ULTRA AIR 65

## EXCLUSIONS:

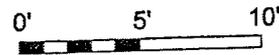
- 1 REMOVAL OF LEDGE, BOULDERS OVER 1/2 C.Y, HAZARDOUS MATERIAL, UNSUITABLE SOILS
- 2 DEALING WITH ANY EXISTING, BURIED OR UNFORESEEN STRUCTURAL, MECHANICAL OR NON-CODE COMPLIANT CONDITIONS. PINNING FTGS TO LEDGE. SITE DE-WATERING.
- 3 DAMAGE, REPAIR OR RELOCATION OF UNKNOWN EXISTING UTILITIES, PIPING, DRYWELLS, ETC.
- 4 TREE CUTTING, PLANT RELOCATION, BRINGING IN EXTRA FILL. LANDSCAPING, FINISH GRADE, LOAM & SEED, WALKS & DRIVES. SEWER PIPING & CONNECTIONS. ASPHALT PAVING.
- 5 APPLIANCES, CABINETS, BUILT-INS & HARDWARE. SECURITY ALARM. BUILDING PERMIT
- 6 SOIL PIPE & SEWER PIPING, PLUMBING FIXTURES. BOILER & HOT WATER TANK.
- 7 SLABS & FOUNDATION WORK

DEMOLITION NOTES:



**FIRST FLOOR PLAN**

1/8" = 1'-0"

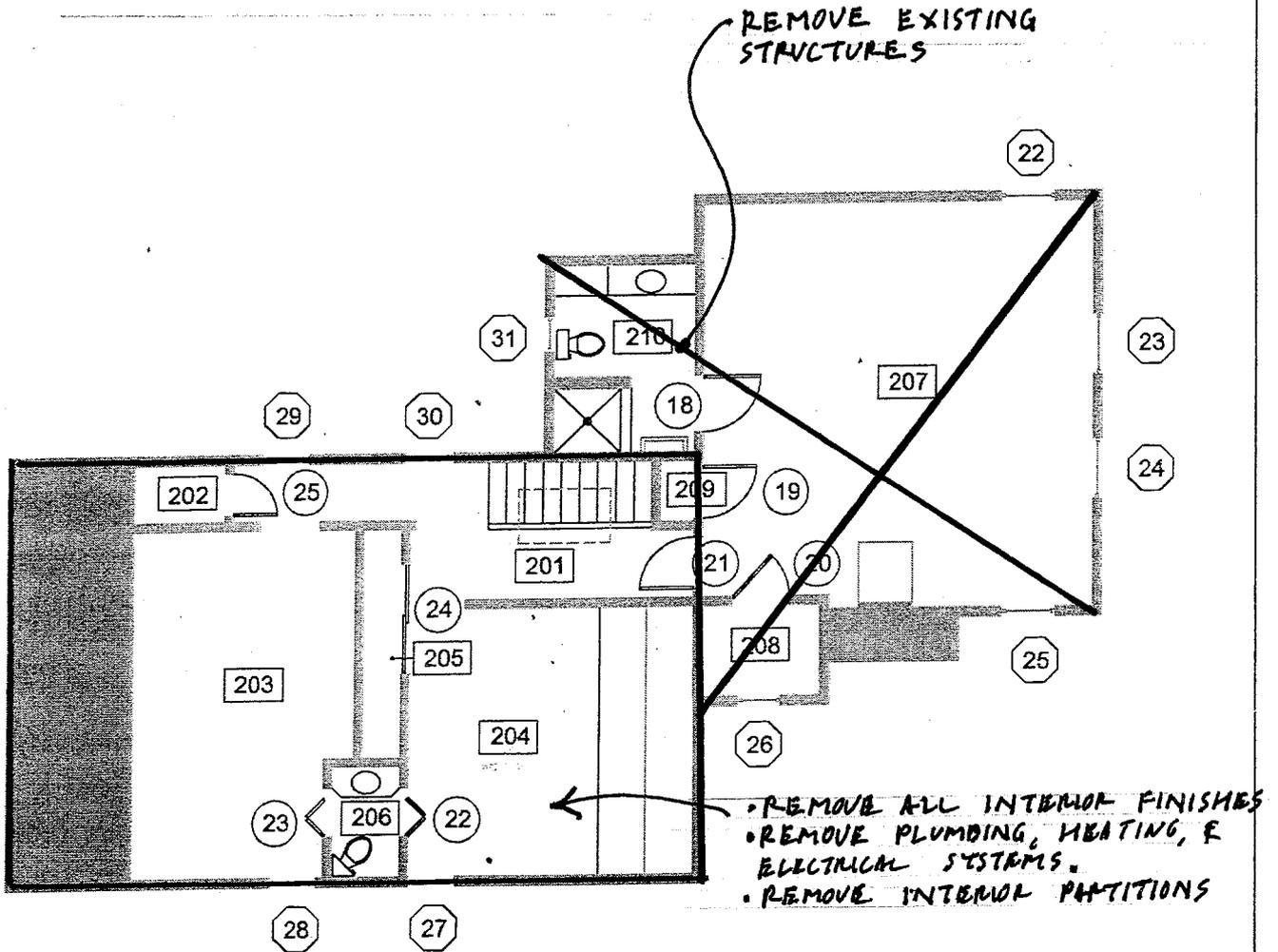


**TURK TRACEY & LARRY ARCHITECTS, LLC**  
 110 EXCHANGE STREET  
 PORTLAND, MAINE 04101  
 TEL: 207.761.9662  
 FAX: 207.781.9898

**Feasibility Study for  
 17 Woodbury Lane  
 Acton, Massachusetts**  
 TOWN OF ACTON  
 MASSACHUSETTS

DATE: 30 OCT 98  
 REVISIONS:  
 PROJECT NO.: 9816

**A1**  
 SHEET NO.:



# SECOND FLOOR PLAN

1/8" = 1'-0"



**TURK TRACEY & LARRY ARCHITECTS, LLC**  
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 PORTLAND, MAINE 04101  
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Feasibility Study for  
 17 Woodbury Lane  
 Acton, Massachusetts  
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DATE: 30 OCT 98  
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**A2**  
 SHEET NO.:

RE-BUILD CHIMNEY FROM ROOF UP, RE-FLASH

SCRAPE & PAINT EXIST SIDING & TRIM, TYP

REPLACE WINDOW OR RE-BUILD & PROVIDE NEW STORM, TYP

REPLACE SHUTTERS, PTD, TYP

REPLACE DOOR & SCREEN, PTD

REMOVE FLOWER BOXES

NEW SIDING, PTD

EXIST GRANITE

REPLACE SILL & APRON

REPLACE DSMT WINDOW

EXISTING GRANITE STEPS

WEST ELEVATION  
1/8" = 1'-0"

REBUILD CHIMNEY

RE-ROOF

REMOVE GUTTER & DOWN SPOUT

SCRAPE & PAINT SIDING & TRIM

REPLACE WATERTABLE TRIM

EXIST GRANITE

NEW CANOPY

REPLACE WINDOW OR REBUILD & PROVIDE NEW STORM

EXIST BULKHEAD, PTD

ACCESSIBLE ENTRY RAMP

NORTH ELEVATION  
1/8" = 1'-0"

REBUILD CHIMNEY

REPLACE WINDOW OR RE-BUILD WITH NEW STORM

NEW DOOR, PTD

SCRAPE & PAINT EXIST SIDING & TRIM

NEW SIDING, PTD

NEW CANOPY

NEW TRIM, PTD

NEW WINDOW TO MATCH EXISTING

NEW TRIM, PTD

EXIST GRANITE

REPLACE BASEMENT WINDOW

EAST ELEVATION  
1/8" = 1'-0"

RE-BUILD CHIMNEY FROM ROOF UP

RE ROOF

RE SHEATH ROOF & ADD/SISTER ROOF RAFTERS

NEW SIDING, PTD

NEW CANOPY

NEW WINDOW TO MATCH EXISTING

ACCESSIBLE ENTRY PATH

SCRAPE & PAINT TRIM

REPLACE WINDOW OR RE-BUILD & PROVIDE NEW STORM

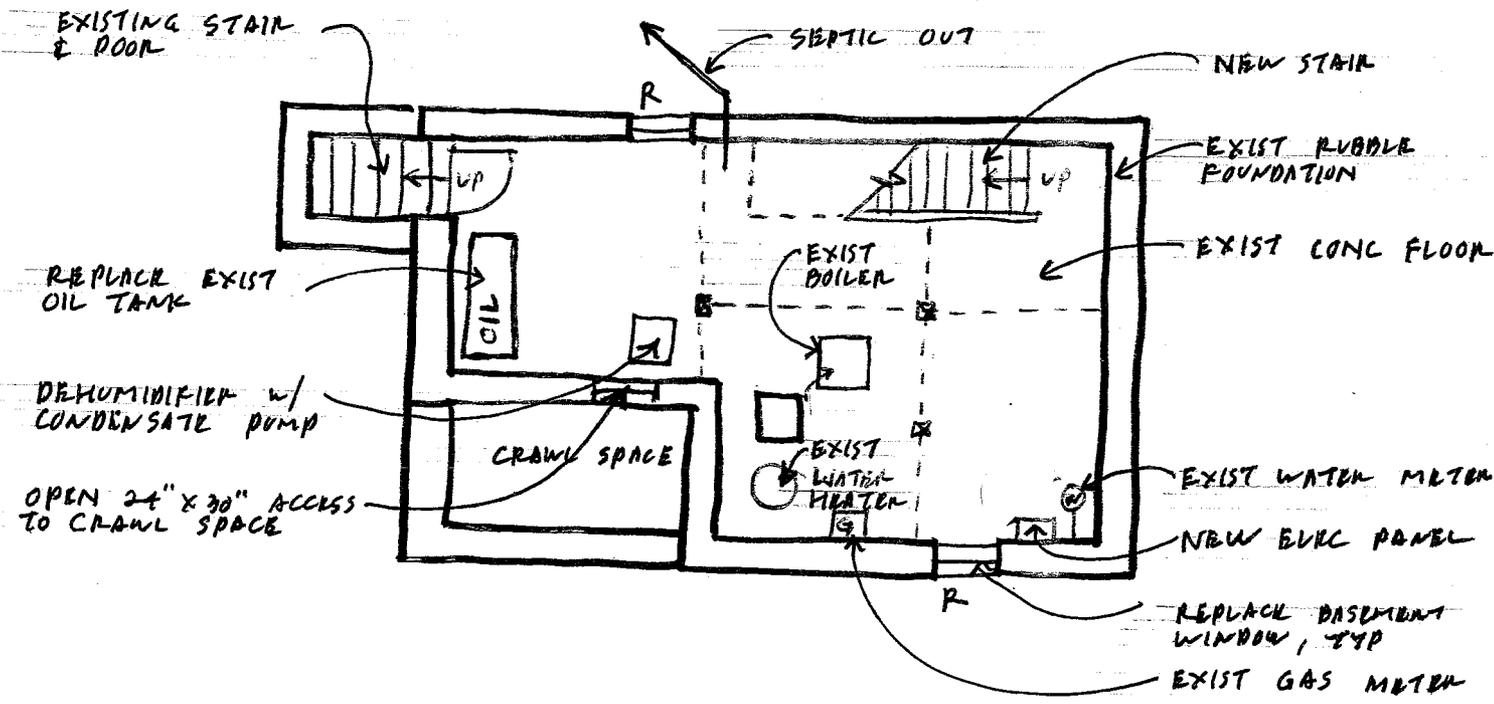
REPLACE WATERTABLE TRIM

EXIST TRIM

NEW TRIM

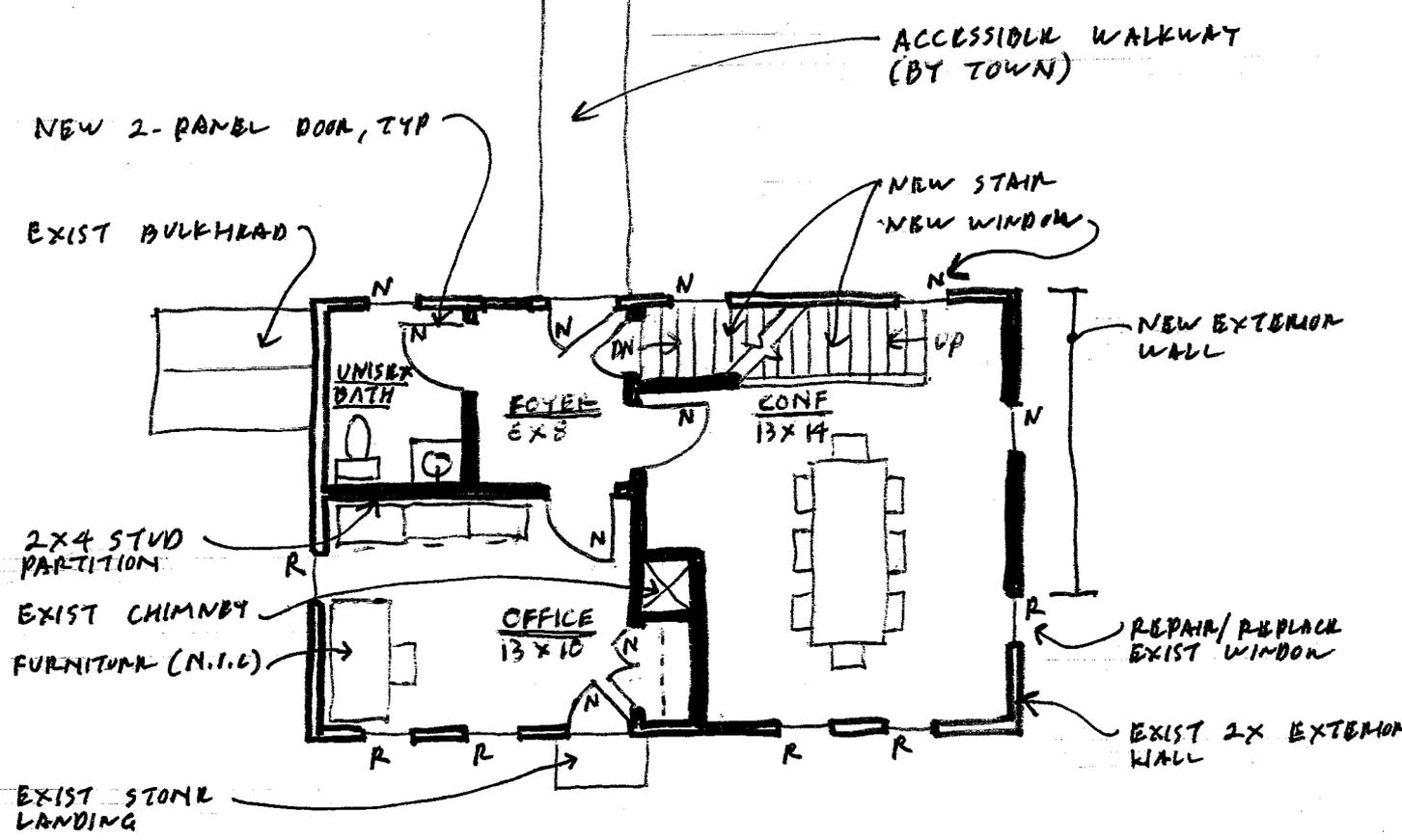
GRANITE, EXIST

SOUTH ELEVATION  
1/8" = 1'-0"



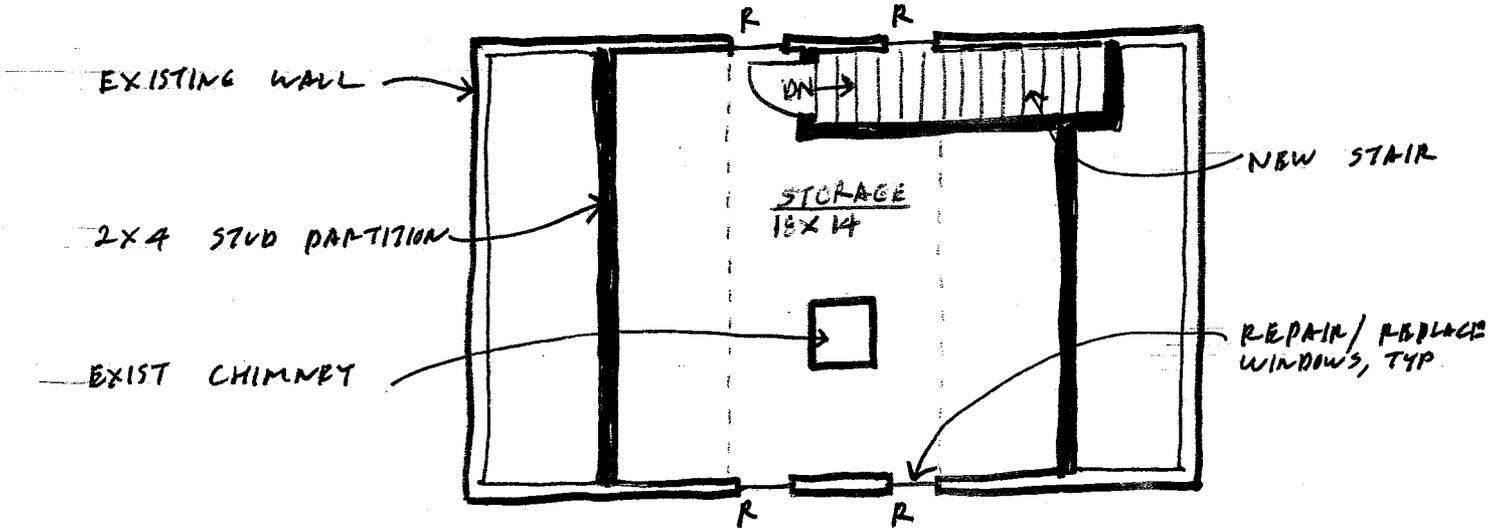
BASEMENT PLAN  
 1/8" = 1'-0"

17 WOODBURY, ACTON

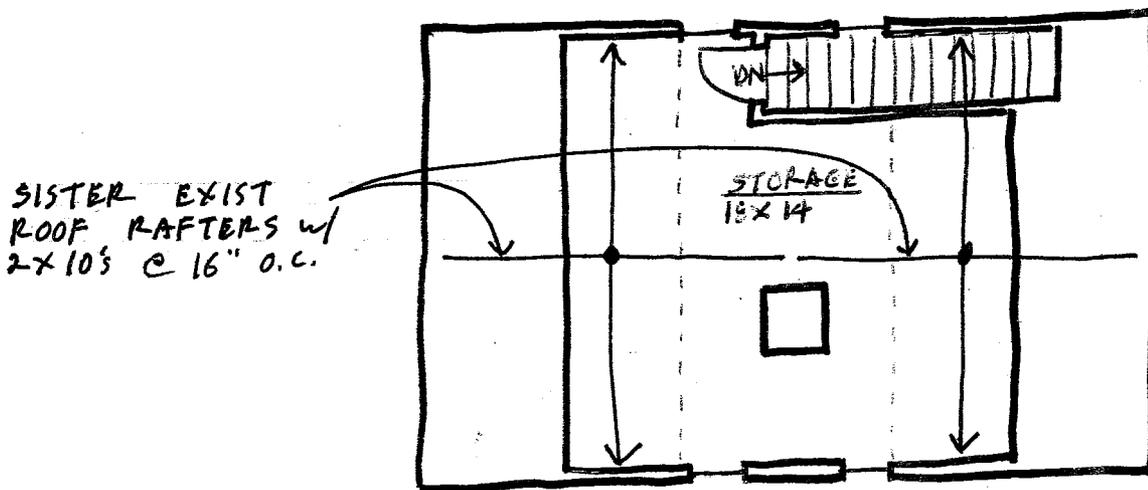


FIRST FLOOR PLAN  
 1/8" = 1'-0"

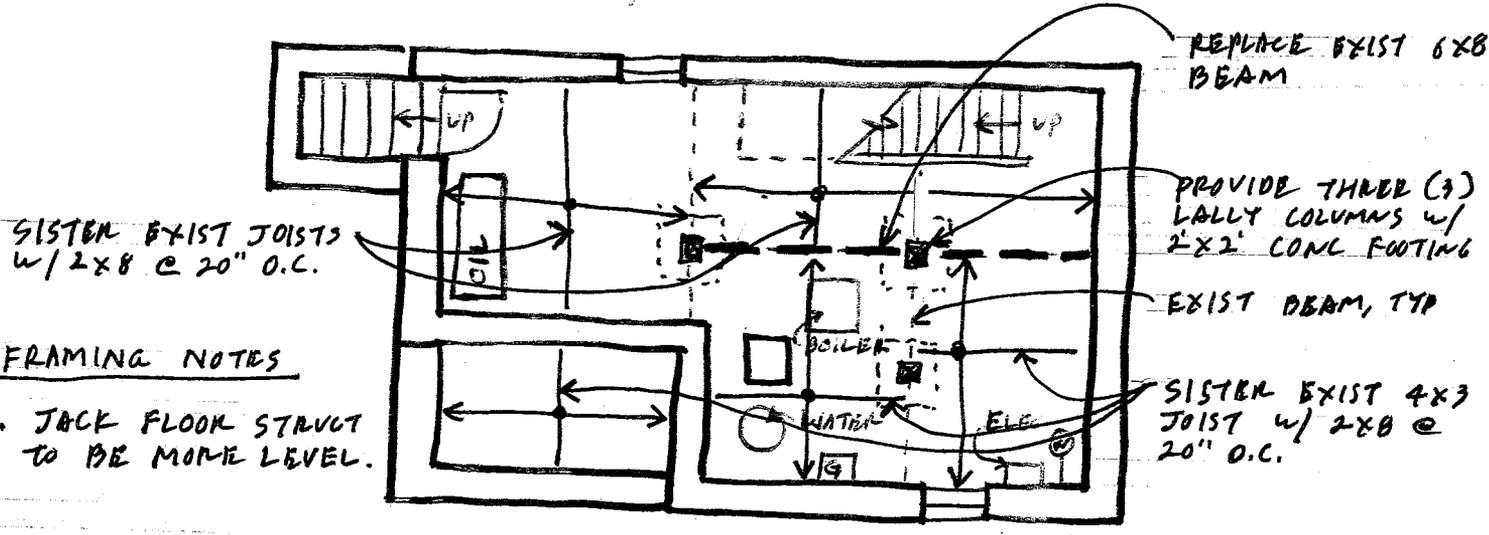
17 WOODBURY, ACTON



SECOND FLOOR PLAN 17 WOODBURY, ACTON  
 $1/8" = 1'-0"$



ROOF FRAMING  
 SECOND FLOOR PLAN 17 WOODBURY, ACTON  
 $1/8" = 1'-0"$



SISTER EXIST JOISTS  
w/ 2x8 @ 20" O.C.

FRAMING NOTES

1. JACK FLOOR STRUCT TO BE MORE LEVEL.

REPLACE EXIST 6x8  
BEAM

PROVIDE THREE (3)  
LALLY COLUMNS w/  
2'x2' CONC FOOTING

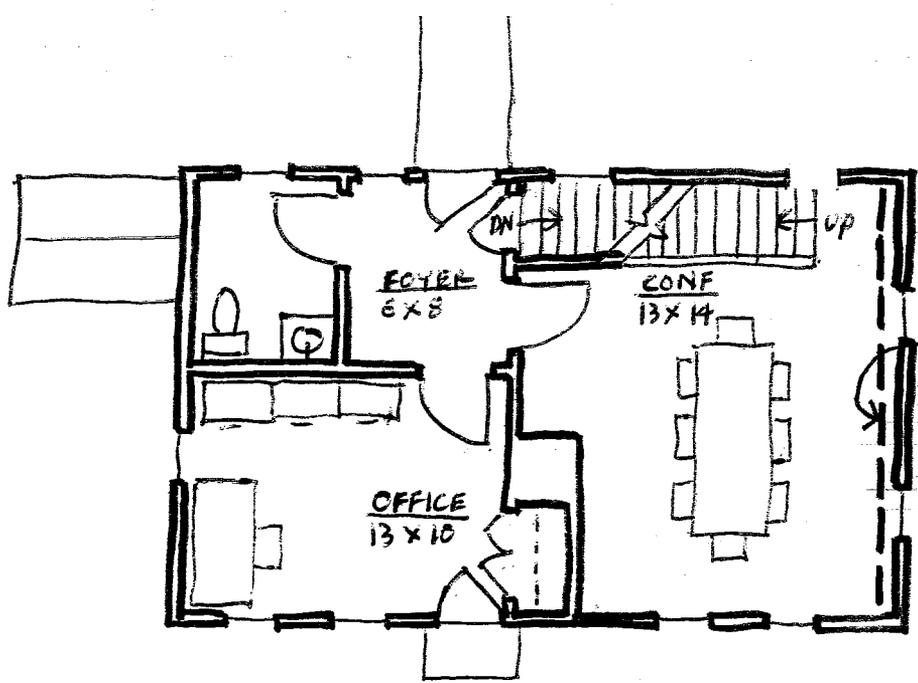
EXIST BEAM, TYP

SISTER EXIST 4x3  
JOIST w/ 2x8 @  
20" O.C.

FIRST FLOOR FRAMING

BASEMENT PLAN  
1/8" = 1'-0"

17 WOODBURY, ACTON

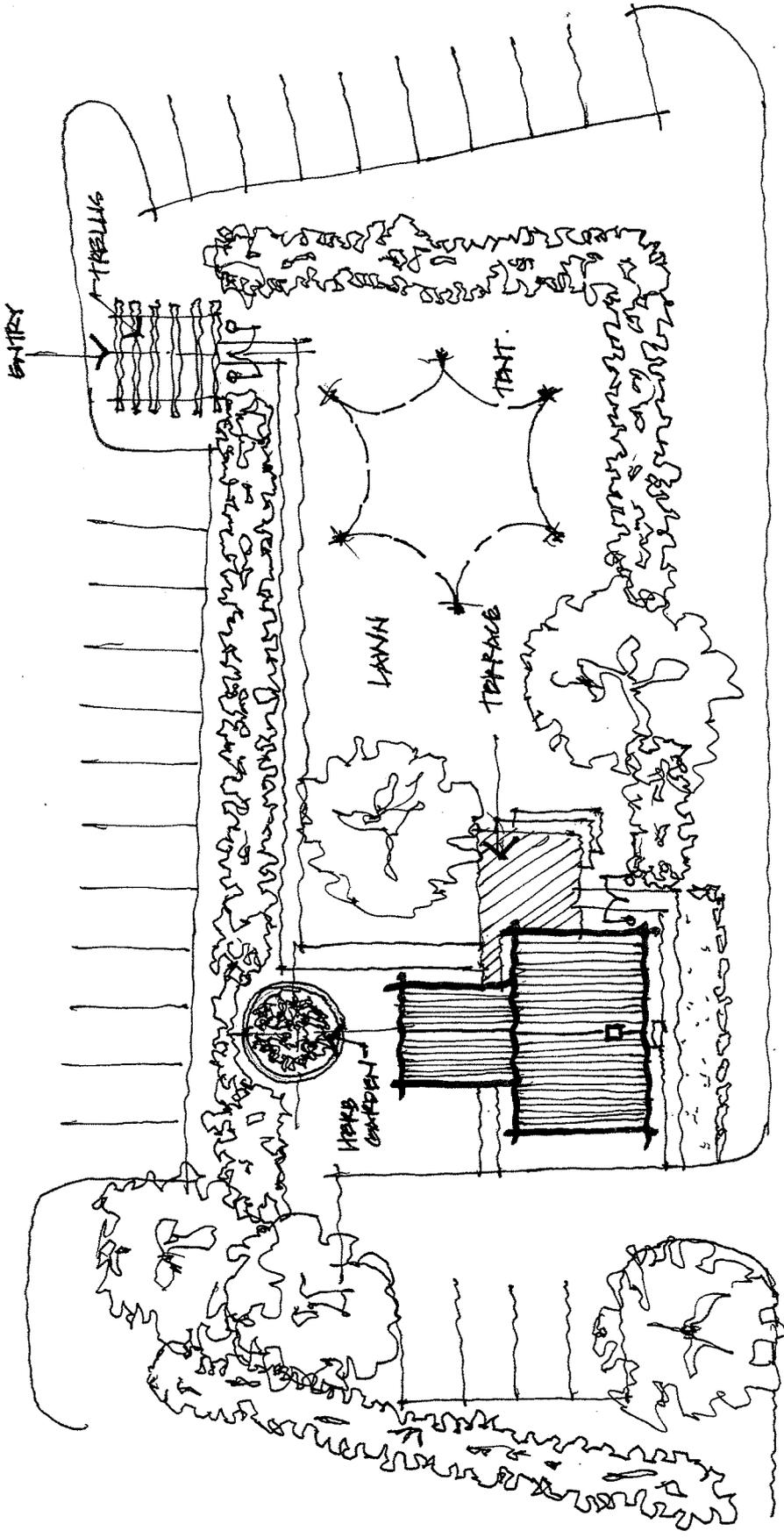


REPLACE EXIST  
8x10 BEAM w/  
NEW HISTORICALLY  
SUITED SALVAGED  
BEAM

SECOND FLOOR FRAMING

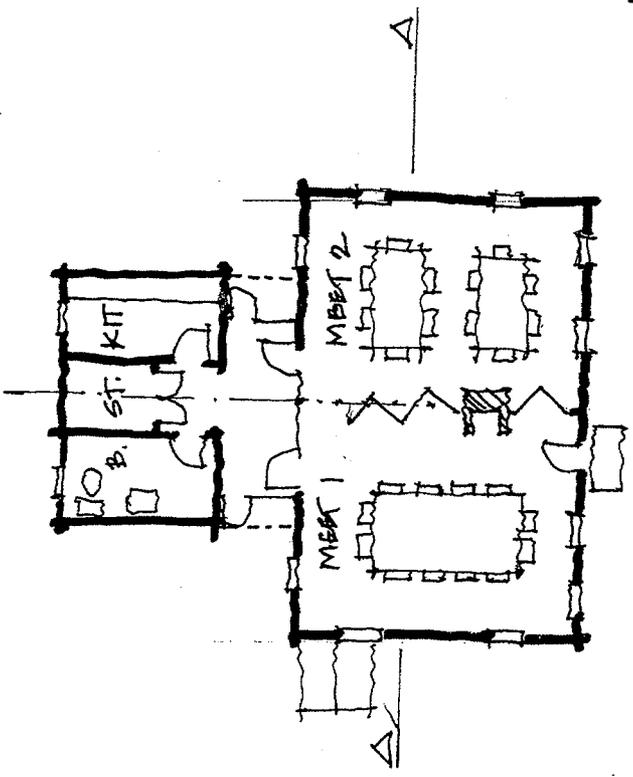
FIRST FLOOR PLAN  
1/8" = 1'-0"

17 WOODBURY, ACTON

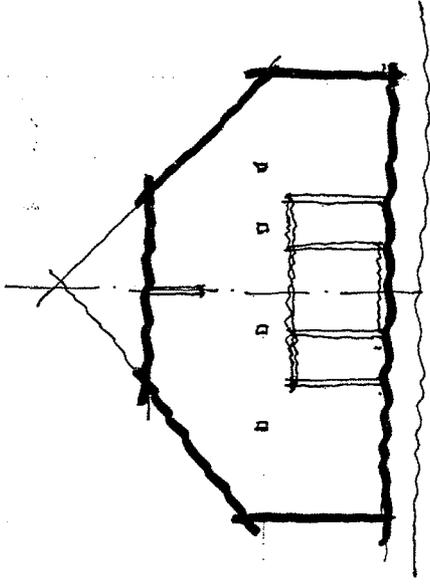


WOODBURY LANE.

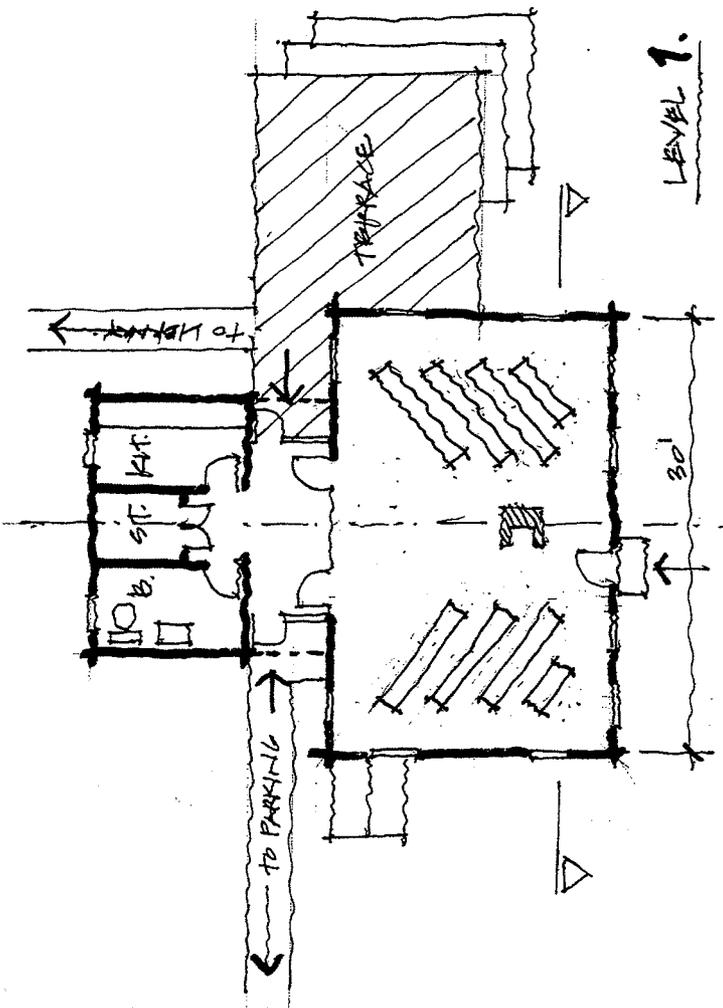
SITE/GARDEN PLAN



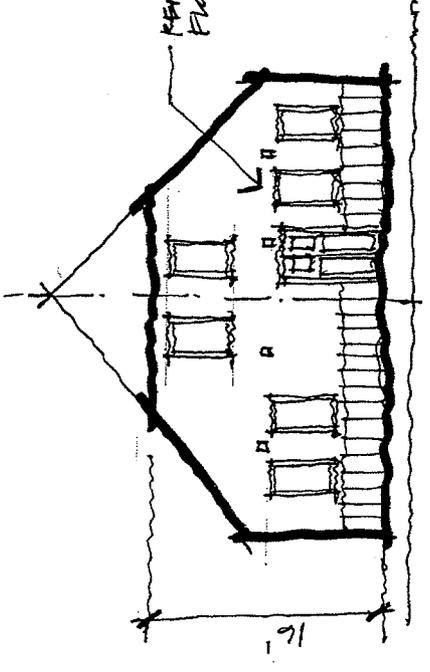
LEVEL 1



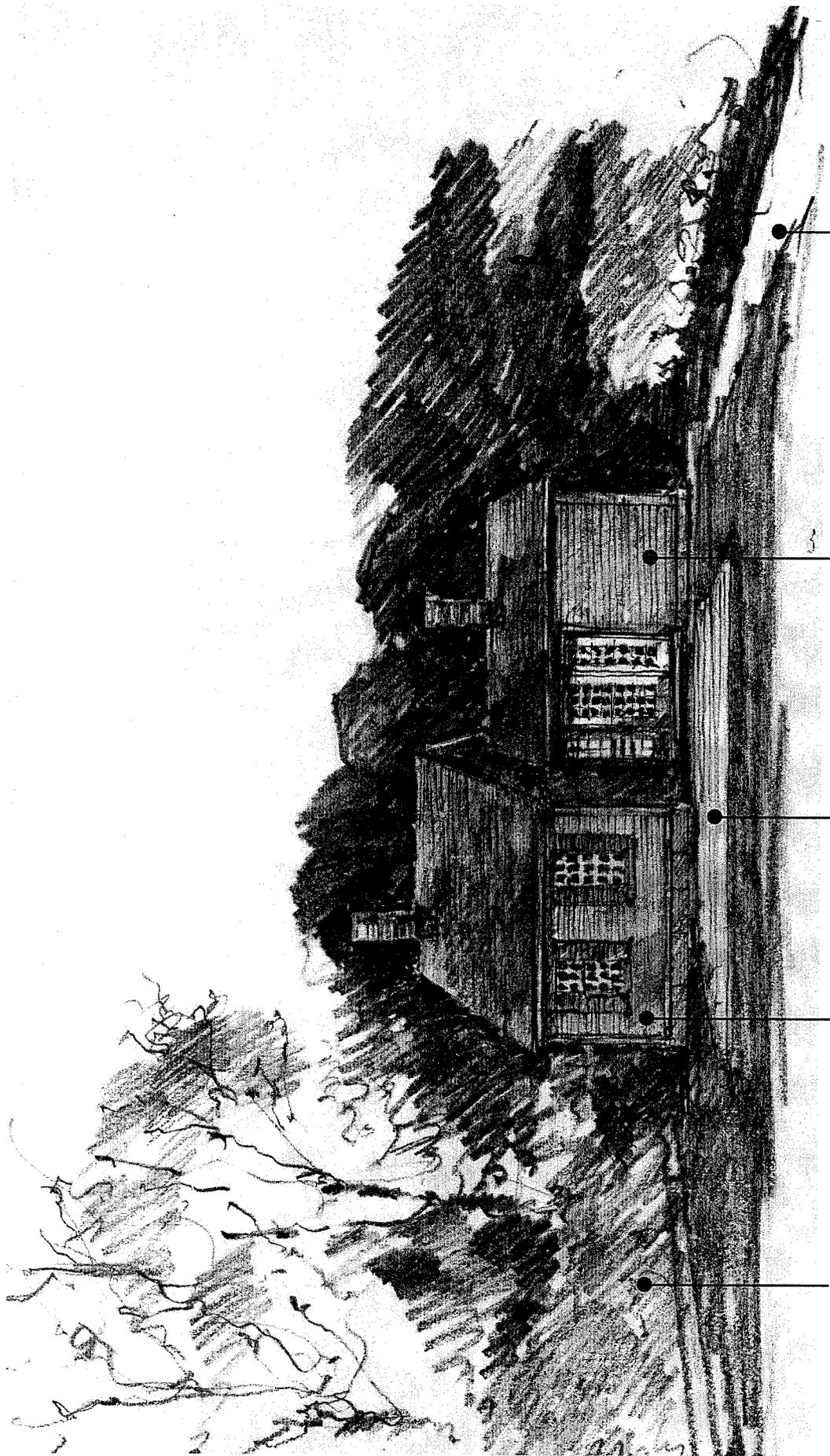
B.



LEVEL 1.



A.



Existing hedge & new planting at Woodbury Lane

Original Asa Parlin House

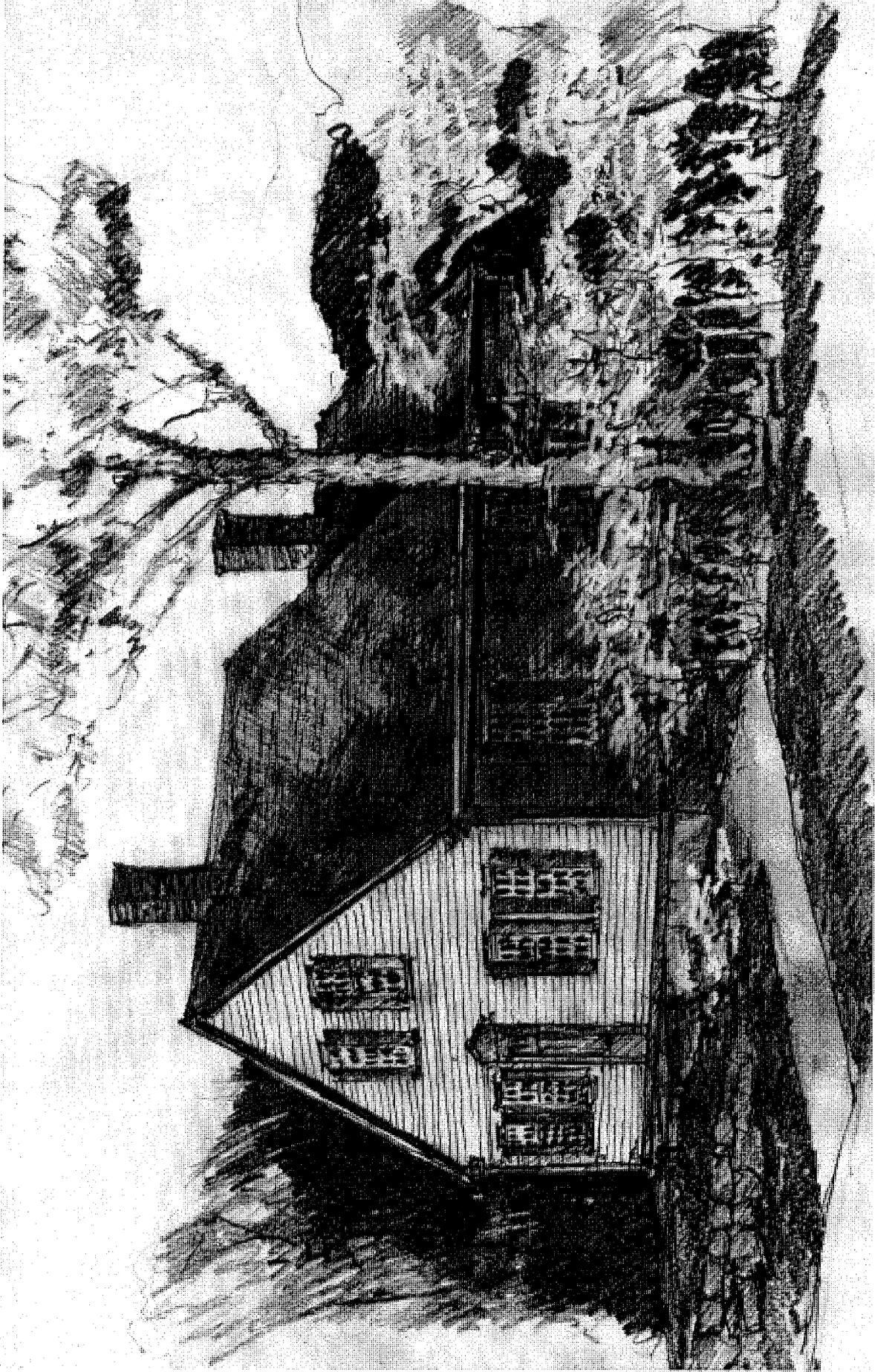
Garden terrace

New extension with breezeway glazed entry, kitchenette & WC

Garden path from the Town Hall & Memorial Library with hedge screening parking

Asa Parlin House

View from the Southeast



Asa Parlin House

View from Woodbury Lane