

Article 7: Town Hall Restoration

In May 2016 Town Meeting voted to approve an appropriation of \$200,000.00 for the repair and restoration of the Town Hall with the understanding that this likely would not be a sufficient amount for this size project. Since that time, the project was put out to bid by the Town of Saugus with the assistance of architecture and restoration firms that specialized in this type of historical restoration project with the goal to preserve the Town Hall exterior that minimizes ongoing maintenance requirements while maintaining the historical elements of the building.

Included in the documents for your review is a comprehensive report prepared by the restoration firm BCA (Building Conservation Associates, Inc.) that outlines through drawings and pictures the extent of the work to be completed on each of elevations of the building.

- North elevation – Taylor Street
- South elevation – Hamilton Street
- West elevation – Central Street
- East elevation – rear of building
- Additional element – fire escape repairs

Included in the report (page 13) is a comprehensive list of what will be completed as part of the project.

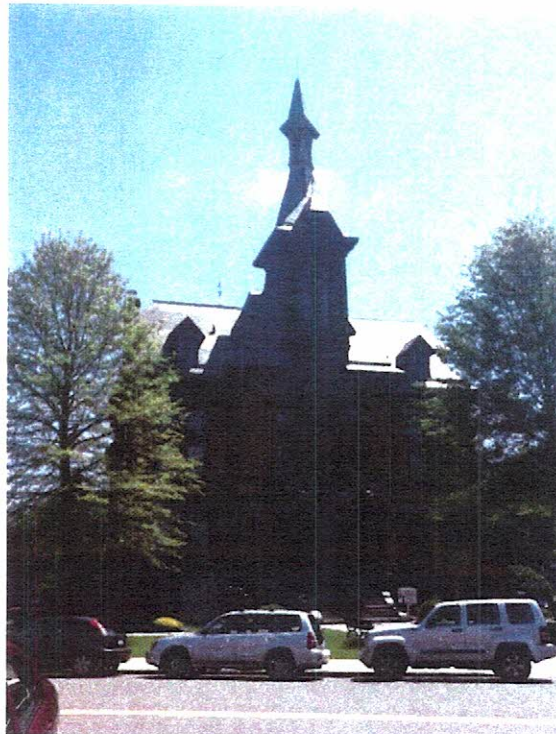
This appropriation is requested in the amount of \$400,000.00. This appropriation combined with the \$200,000.00 approved in May 2016 will meet the contracted bid price with an allowance for contingency.

The funding source for this appropriation is a borrowing authorization.

Saugus Town Hall

*298 Central Street
Saugus, Massachusetts*

Exterior Conditions and Treatment Recommendations



June 2, 2017



BUILDING CONSERVATION ASSOCIATES INC.

Saugus Town Hall

*298 Central Street
Saugus, Massachusetts*

Exterior Conditions and Treatment Recommendations

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June 2, 2017



BUILDING CONSERVATION ASSOCIATES INC

**Saugus Town Hall
298 Central Street
Saugus, Massachusetts**

**Exterior Painted Wood Cladding Conditions, Roof
Condition, and Treatment Recommendations**

INTRODUCTION

On May 19, 2017, Building Conservation Associates, Inc. (BCA) surveyed the exterior conditions of Saugus Town Hall located at 298 Central Street in Saugus, Massachusetts. The survey was conducted using an 80' aerial lift, as well as from the ground in areas not accessible by lift. BCA was able to inspect the existing conditions of the majority of the building envelope, focusing primarily on the conditions of the wood exterior and the slate roof. The conditions of the building materials were recorded with over 200 digital photographs and on the 1998 renovation elevation drawings of the building provided by Finegold Alexander Architects.

This report summarizes the findings of BCA's survey and provides a general list of recommendations for treatment of the building's wood exterior and roof elements based on those findings. Drawings locating the specific locations of conditions noted in this report are attached as Appendix A.

BUILDING HISTORY AND DESCRIPTION

Saugus Town Hall is located facing west on Central Street and is bordered by Taylor Street to the north and Hamilton Street to the south. The building was completed in 1875 and designed in the Stick Style / Victorian Eclectic by the Boston architectural firm of Lord and Fuller. The original Town Hall was built in 1837, however the growing population required a larger structure with the capacity to house the high school and the public library. Both the high school and library were moved to their own locations at the turn of the century.

Saugus Town Hall is a two-story wood constructed building, set on a Rockport Granite foundation. It has a steeply pitched gable slate roof, the slate of which has alternating black and green banding. There are two decorative cupolas, the eastern cupola (clock tower) is much larger, marking the entrance to the building. The building is clad in wood clapboards, polychrome in color, with highly decorative wood trim and moldings. Many of the primarily 2/2 large windows have small slate covered hoods on the first floor and the second floor windows have decorative glass transoms and ornately carved spandrel panels, brackets, and pilasters (Figure 1).

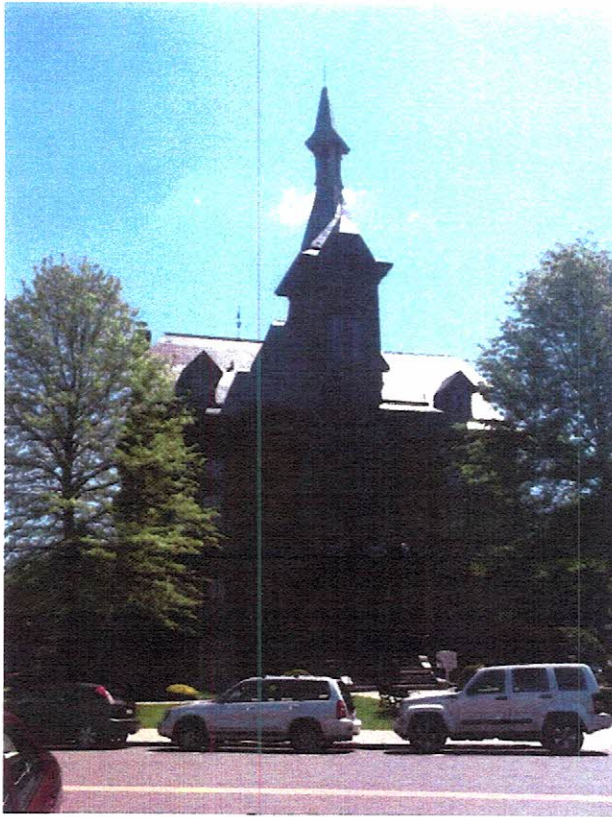


Figure 1: Saugus Town Hall, West Elevation

SUMMARY OF FINDINGS

Saugus Town Hall has not had extensive work done on its exterior since 1998, nearly 20 years ago. Painting campaigns in recent years continue to fail prematurely, due to improper preparation of the wood substrate both in years past and more recently. Paint was not removed to bare substrate, and continual repainting over paint that is not properly adhered peels quite quickly; in many areas bare wood is exposed to the weather. The most typical deteriorative condition is weathered and heavily checked wood. There are also a limited number of areas that will require partial replacement of wood units. The paneled balustrade above the main entry portico is heavily rotted; only a few components may be salvageable. The wood panel of "SAUGUS" on the clock tower is in poor condition. It should be removed in its entirety and restored off site. The paint on the Town Hall should be removed 100% by chemically stripping, wood components consolidated where necessary, and wood components replaced where they are beyond repair and repainted. The brick chimney will also require paint removal, at which time it should be assessed for any masonry repairs.

BCA reviewed the condition of the roofing components. The roof appears to be in very good condition, including flashings, gutters, and downspouts. There is only a very small number of missing or slipped slate.

This report is provided for informational purposes only. Construction documents that include drawings and specifications will be completed separately. Quantification of repairs should be compiled from the construction documents.

EXTERIOR PAINT

Saugus Town Hall is currently painted in its presumed original paint scheme, a polychrome of several warm colors. The last major painting campaign was during the 1998 renovation, at which time the building was repainted in its entirety. This work included re-clapboarding of the east elevation as part of the addition of a new entry and portico. There are isolated areas on the north and south elevations that also have clapboard replacement. Painting in the interim has been intermittent and not in a comprehensive manner. The most recent painting was completed on the full south elevation approximately 6 years ago.



The condition of the paint on the building is generally poor, primarily due to improperly prepared substrate prior to repainting. Multiple layers of paint have become very thick in some areas, causing it to delaminate at the wood surface (Figures 2-4). It is also possible that incompatible types of paint were used, in which case the paint would not adhere well to the previous layer.

Figure 2: North elevation, thick layers of paint delaminating from the surface.

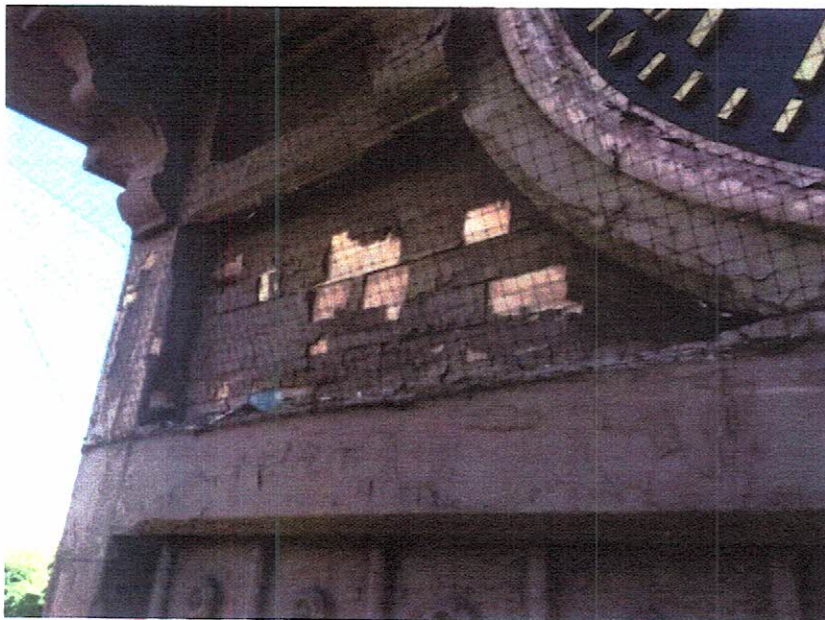


Figure 3: West elevation, clock tower. Thick paint loss exposing bare wood substrate.



Figure 4: North elevation, typical condition of banding above granite foundation.

Paint adhesion is performing fairly well on the replacement wood, however there is some unusual discoloration occurring on the west elevation. In addition, the paint on the east elevation appears much like an opaque stain rather than a traditional paint (Figure 5).



Figure 5: East elevation, apparent opaque staining and discoloration of some areas.

In many cases, the peeling paint is so heavy and unsightly, it gives the appearance that deterioration of the wood substrate is in far worse condition than it actually is (Figure 6). The extent of wood deterioration is discussed below.

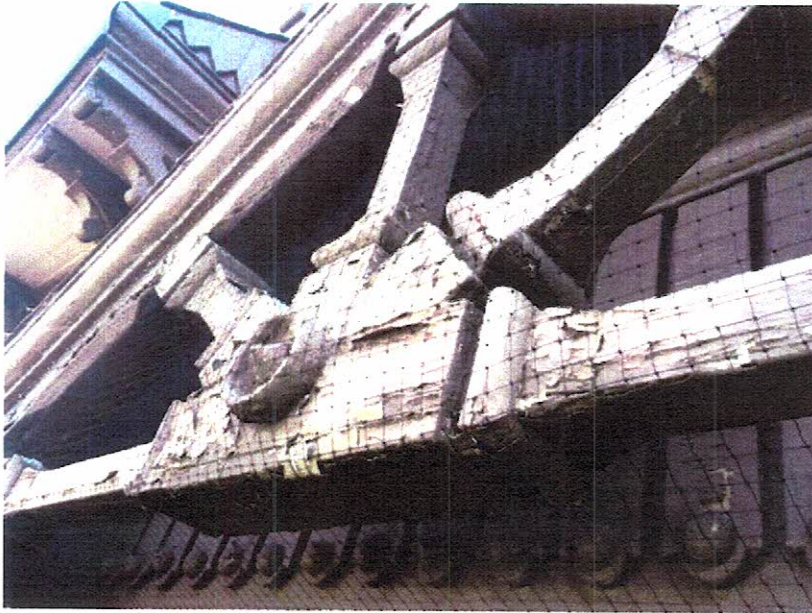


Figure 6: West elevation tower, decorative element paint failure, substrate in good condition.

Exterior Wood Cladding

Paint failure and loss are the main contributing factors to varying levels of wood deterioration on the building. Bare wood exposed to sun, rain and wind will weather and denigrate rather quickly. Weathering and checking of the wood is most common condition on the Town Hall's exterior. This is most often found at the projecting banding at the watertable and the banding just below the second floor windows as well as window sills. The banding acts as a "shelf" for water shedding from above (Figure 7).

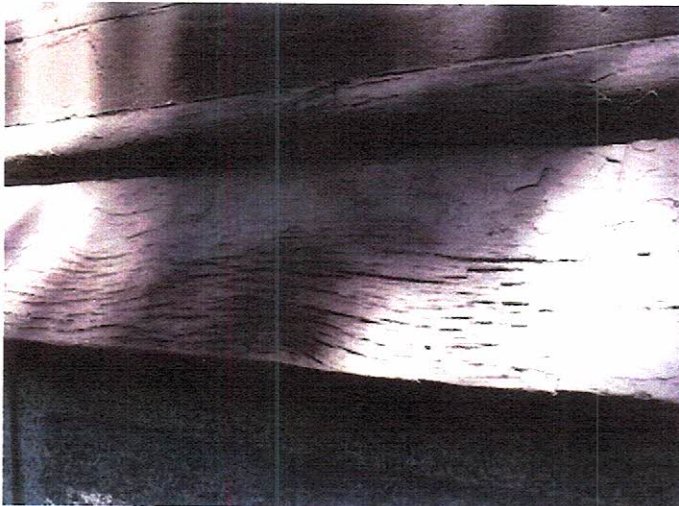


Figure 7: Typical weathering and checking of wood on projecting surfaces.

There are also locations where portions of wood units have deteriorated or rotted to the point where they cannot be repaired. In most cases, the entire unit will not need replacement, only the damaged portion, which can be replaced with a wood dutchman. There are a limited number of areas requiring a combination of consolidation, dutchman, and complete replacement (Figures 8,9).

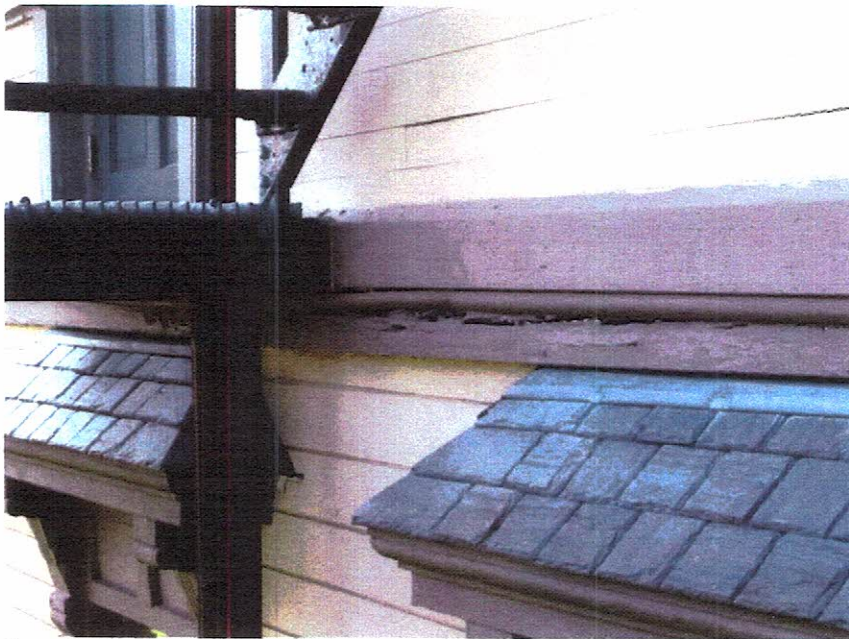


Figure 8: North elevation, wood element requiring partial replacement (dutchman).

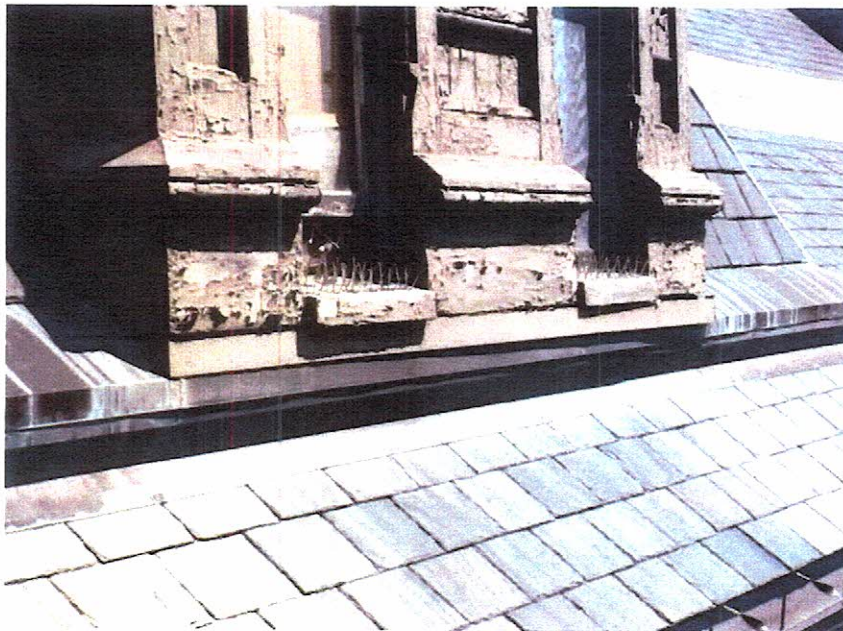


Figure 9: South elevation. Dormer in need of consolidation, dutchman, and reattachment of loose units.

The balustrade above the west entry portico is in very poor condition (Figure 10). It is rotted in some areas completely through the depth of wood. Poor drainage on the roof and lack of drying out are likely responsible (Figures 11,12). It is unclear how much of the original material can be salvaged, however the central block that reads "1895" appears to be restorable (Figure 13).

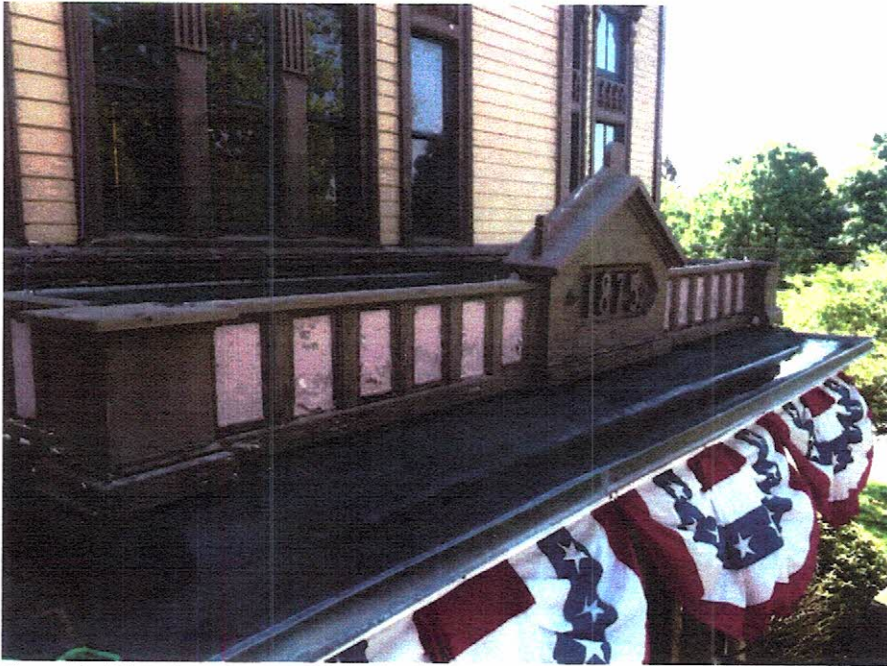


Figure 10: West elevation, paneled balustrade above main entry portico.

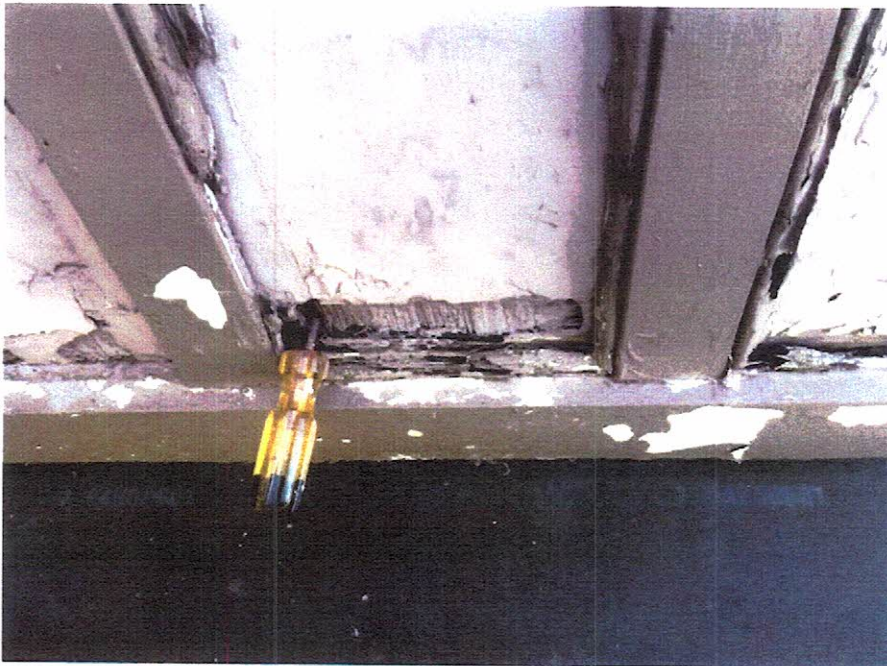


Figure 11: Panel on north side of balustrade completely rotted through.

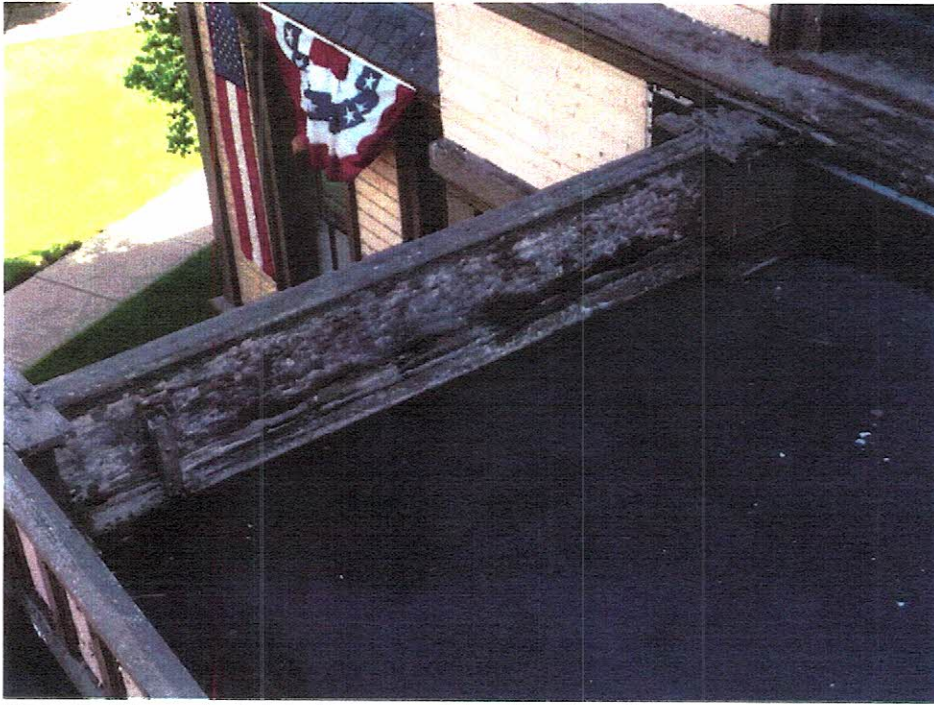


Figure 12: Entry portico balustrade, poor condition of interior wall.



Figure 13: Balustrade central panel in restorable condition.

The clock tower on the east end was only accessible by aerial lift up to the clock face. From the ground the tower appears in fair to poor condition, however closer inspection of revealed little substrate damage, but with heavily peeling paint. The cupola above the clock tower was not very visible, however it appeared in relatively good condition, likely in need of repairs in some locations. The "Saugus" panel is in poor condition (Figure 14). Boards and letters are loose, and most of the wood is very soft. As it is an important part of original material on the building, it should be fully restored if possible.

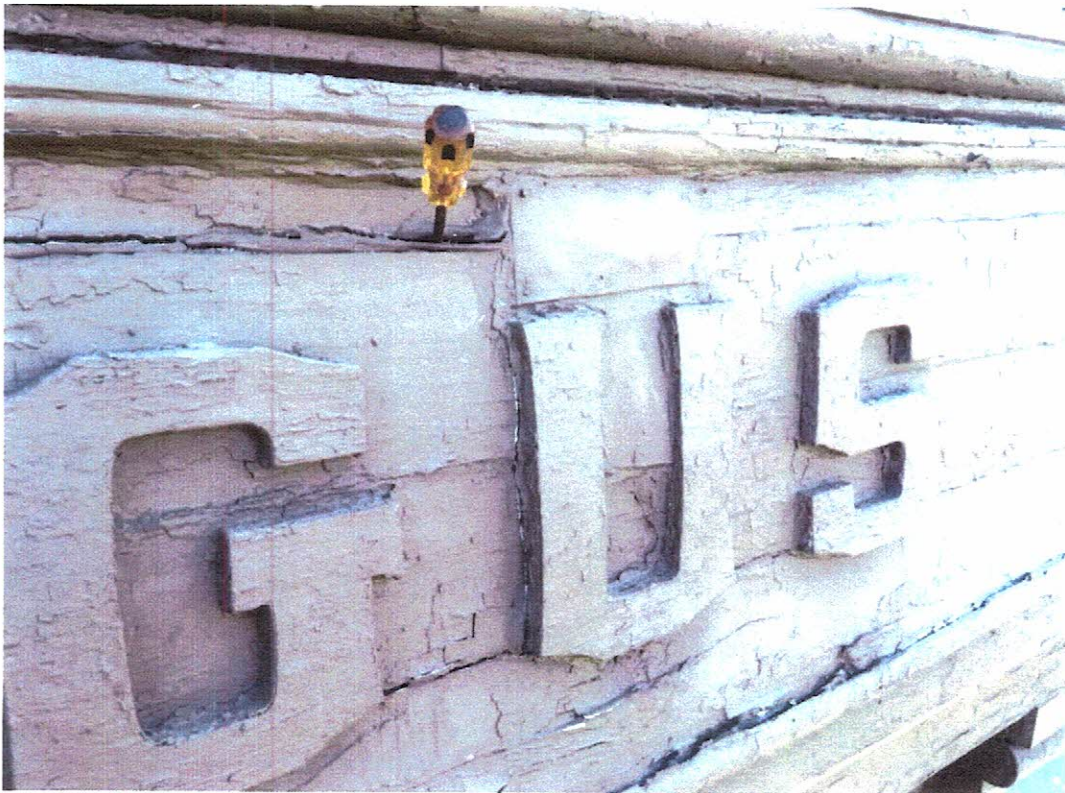


Figure 14: "Saugus" panel on the clock tower in very poor condition.

There are multiple areas on the north, south, and west elevations where insulation was blown in and plugged with a piece of wood. There are several plug locations that are allowing water in as they are not properly sealed, and in a number of areas the plugs are missing and birds are nesting in the wall (Figure 15).



Figure 15: North elevation, missing plug for blown-in insulation.

Bird netting and spikes are installed around the building. In some locations its installation has been detrimental to the wood substrate, not well adhered, and is visually unpleasing.



Figure 16: Typical application of bird spikes.

Chimney

The brick chimney located on the north elevation has also been painted multiple times. Paint is peeling heavily on this masonry as well. It was noted in some of the exposed brick there is notable mortar loss. Inevitably a non-breathable paint was applied, trapping moisture in the brick and mortar (Figure 17). The trapped moisture deteriorates the masonry by freeze thaw cycling.



Figure 17: North elevation chimney. Note mortar loss in exposed brick.

ROOF

The Town Hall's roof system is of complex design. There are multiple gables roofs, dormers, valleys and hipped roofs that make up the slate portion of the roof. The slate is in very good condition, with only a few slipped and missing slate (Figures 18,19). The history of the roof is unclear; it does not appear that the slate was replaced during the 1998 work, however the existing slate may have been rehung as the flashings were replaced with new lead coated copper. The slate is not likely original, given its good condition, however it may have been replaced many decades ago. Flashings, gutters and downspouts are in good working condition.

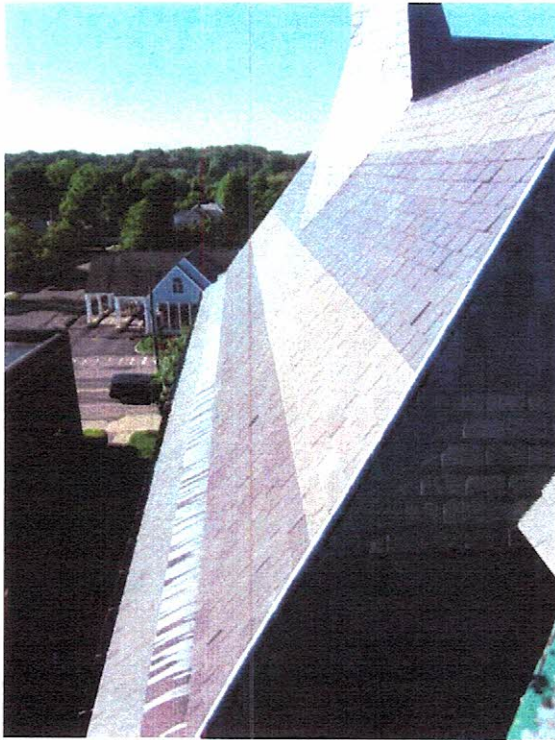


Figure 18: East elevation roof in good condition.



Figure 19: North elevation, slipped slate at chimney.
(Slate were checked, these are not in danger of falling)

TREATMENT RECOMMENDATIONS: COMPREHENSIVE

The following is a comprehensive list of treatment recommendations for exterior wood restoration at Saugus Town Hall. Should the work require phasing, recommendations are included in the last section.

Exterior Paint

- Remove 100% of paint to bare substrate from the exterior wood elements
- Repaint using an appropriate 3-coat paint system

Exterior Wood Restoration

- Consolidate weathered and checked areas of wood
- Reinstall loose and displaced units of wood
- Replace portions of deteriorated wood units with new wood dutchman
- Replace deteriorated units of wood to match existing

Brick Chimney

- Remove 100% of paint from masonry using chemical strippers
- Assess condition of brick and mortar
- Perform necessary masonry repairs
- Determine if the chimney had historically been painted. Consider not repainting if possible
- If repainting is implemented, use an appropriate mineral silicate masonry paint system

Roof

- Rehang slipped slate with new copper nailing
- Replace missing slate

PHASING RECOMMENDATIONS

Access to the building (staging for construction) is a very large percentage of the cost of a restoration project. If the envelope restoration is to be phased, consideration should be given to completing one elevation at a time in its entirety so as to only have to erect scaffolding once on each side of the building. As the north elevation requires the most work and is in most need of repair, BCA would recommend restoration begin here, followed by the east elevation, south elevation and finally the west elevation.

Appendix A



CONDITIONS LEGALES

	CRACK
	AREA OF DETERIORATED WOOD REQUIRING CONSOLIDATION
	WOOD UNIT LOOSE OR DISPLACED
	AREA OF DETERIORATED WOOD REQUIRING DUTCHMAN REPAIR
	MISSING OR DETERIORATED UNIT REQUIRING REPLACEMENT
	AREA OF CLAPBOARD REPLACED

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KEYNOTES: WOOD

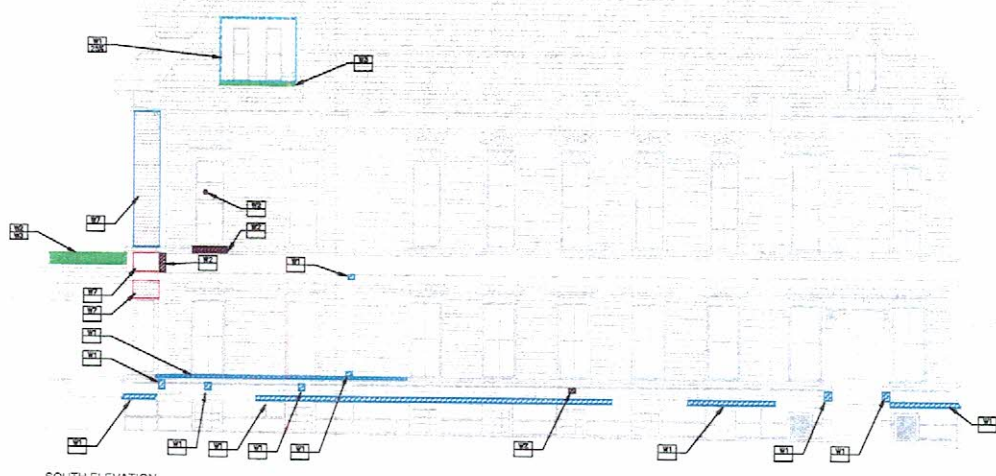
- W1** WEATHERED AND OR CHECKED WOOD REQUIRING CONSOLIDATION
- W2** PORTION OF WOOD UNIT BEYOND REPAIR, REQUIRING WOOD BUTCHMAN
- W3** WOOD UNIT BEYOND REPAIR REQUIRING REPLACEMENT
- W4** MISSING WOOD UNIT
- W5** DISPLACED WOOD UNIT
- W6** WEATHERED OR CHECKED BOTTOM WINDOW SASH RAIL REQUIRING CONSOLIDATION
- W7** AREA OF REPLACED CLAPBOARD

KEYNOTES: SLATE

- S1** SLIPPED SLATE
- S2** MISSING SLATE

CONDITIONS LEGEND

- CRACK**
- AREA OF DETRIORATED WOOD REQUIRING CONSOLIDATION**
- WOOD UNIT LOOSE OR DISPLACED**
- AREA OF DETRIORATED WOOD REQUIRING BUTCHMAN REPAIR**
- MISSING OR DETERIORATED UNIT REQUIRING REPLACEMENT**
- AREA OF CLAPBOARD REPLACED**



SOUTH ELEVATION

Saugus Town Hall

298 Central Street
Saugus MA 01906

OWNER
Town of Saugus

Finigold Alexander Architects

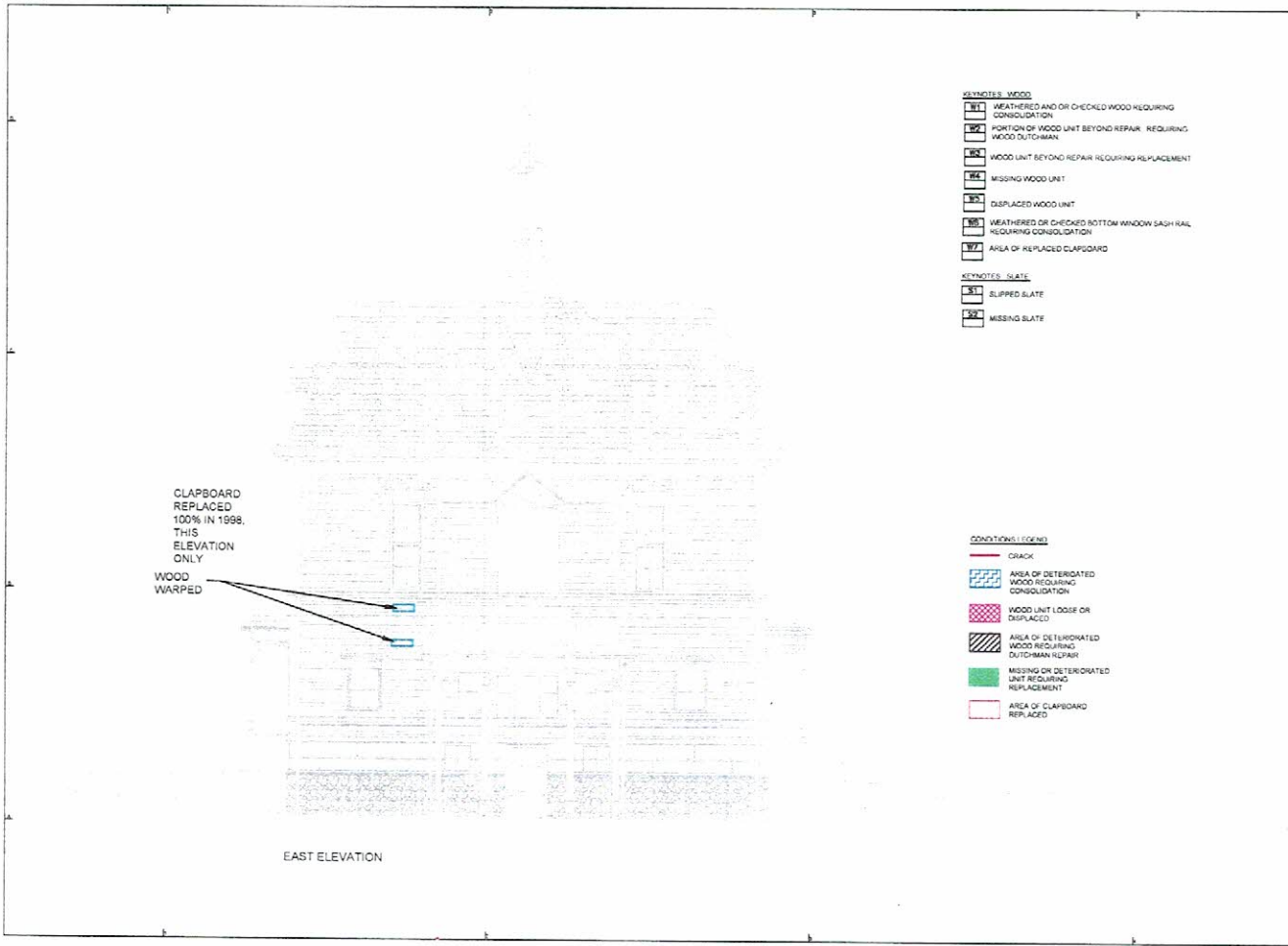
Building Conservation
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DATE: 10/1/17

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South Elevation

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Saugus Town Hall

298 Central Street
Saugus MA 01906

OWNER
Town of Saugus

**Finagold
Alexander
Architects**

Building Conservation
Associates, Inc.

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