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# Historic Buildings Preservation Plan

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Town of Hadley  
Massachusetts

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Olde Mohawk Masonry  
& Historic Restoration,  
Inc.

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APRIL 29, 2013

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# **PART 1**

## **EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

### INTRODUCTION

The Town of Hadley, Massachusetts contracted Olde Mohawk Masonry & Historic Restoration in late 2012 to prepare a Historic Building Preservation Plan (the “Plan”) for the repair of Hadley Town Hall, Russell School and North Hadley Village Hall. The Plan, completed in early 2013, includes a schedule for the implementation of recommendations and identification of possible funding sources for the restoration and rehabilitation of the building exteriors. The Plan contains detailed **conditions assessments** of each building, determination of the causes of deterioration and historically appropriate corrective recommendations. All recommendations and methodologies employed in the Plan are in compliance with guidelines set forth by the National Park Service, US Department of the Interior in order to qualify for historic preservation- focused funding. Detailed budgets are included to identify the costs involved; and the tasks necessary to repair the buildings are prioritized by criticality into a phased schedule. Brief evaluations of the interiors of Russell School and North Hadley Village Hall are included as addenda.

The Plan includes: an **executive summary**; a ranking system of high, medium, and low priority for the **prioritization of tasks** identified for the restoration projects to be undertaken by the Town to restore the three buildings; **cost estimates** to complete the identified restoration tasks; identification of local, regional, state, federal, foundation and other **funding sources** potentially available, including allowable Community Preservation Act uses; a phased, ten year **timeline** for the implementation of the recommendations based on the ranking system; and recommendations for methods of **increasing public awareness of historic preservation** in Hadley. It is the intent of the Hadley Historic Commission to have the Plan presented in a public forum.

Municipalities have a responsibility to protect, maintain and restore their real property. Building maintenance must be a line item in the Town’s budget each year with a realistic amount of funds appropriated. As the stewards of historic buildings, the Town has not met this obligation with respect to the North Hadley Village Hall and Russell School. The deferred maintenance of the past decades has caused hundreds of thousands of dollars in damage.

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*"When you strip away the rhetoric, preservation is simply having the good sense to hold on to things that are well designed, that link us with our past in a meaningful way, and that have plenty of good use left in them."*

- Richard Moe, former Director of the National Trust for Historic Preservation

## CONDITIONS ASSESSMENTS

### North Hadley Village Hall

The present condition of Village Hall is primarily a result of lack of maintenance and inappropriate repairs. However, the problems look worse than they are. Located in the North Hadley Historic District on the National Register of Historic Places, much of the original fabric of the exterior is sound and in serviceable condition. Most of the deterioration is a result of water infiltration caused by a poor roof system, subsequent failed paint coatings and the absence of roof and perimeter drainage systems to channel water away from the building. This timber-framed structure is made from old growth wood and many of the building's components have held up well against water and sun damage in spite of the deferred maintenance. While many of the original wood windows were replaced with vinyl, many remain in place and are good candidates for restoration. The brick masonry of the chimneys and foundation is coated with paint which is preventing it from drying-out; resulting in extensive damage. Also of note is a possible structural issue: a bow is visible at an interior and exterior section of wall on the First Floor. Some disruption to the brickwork of the foundation where it supports the timber sill is visible in the cellar below this area. No issue is detected with the exterior capstones of the foundation but brick deterioration is evident in the form of brick dust escaping through the stone joints. It is recommended that further investigation in the form of probes be undertaken to identify the cause of the problem and to recommend a strategy to correct the issue.

North Hadley Village Hall is an important example of a hand-crafted, Italianate wood structure that still retains much of its original, historic fabric. Stopping the deterioration now will allow North Hadley Village Hall to last another 150 years. Critical to that plan are the replacement of the existing roof system and the introduction of new gutters and perimeter drainage to control the roof runoff that is destroying the exterior of the building. Of equal or even greater importance, is the need for maintenance, particularly after the work is completed? Approximately twelve years ago, the building's cupola was restored. However, it appears that nothing has been done since to care for this work and, as a result, paint is peeling and the wood is consequently rotting. This example highlights the importance of maintenance. This facility is currently used by the Town Parks and Recreation Department and the Fire Department. Investment in the preservation and future use of the building is economically sound, environmentally responsible, and important to the Town's residents when compared against the loss of it as a cultural resource and Town amenity and the cost to build a new facility.

### Russell School

Located in the Hadley Center Historic District on the National Register of Historic Places, the Russell School is in fair serviceable condition, overall, despite decades of neglect. Because of the general lack of maintenance, serious exterior repair issues that would have been prevented with routine maintenance have evolved into very costly work. Fortunately, the building was constructed with durable and sustainable materials—slate, brick and stone - with a craftsmanship that would be cost-prohibitive to recreate today. While the roof and flashing assemblies generally top repair priority lists, there are no active leaks detected in the attic of Russell School. The greatest concerns are centered on the potential of movement of the foundation and the wide-reaching effects of poor roof and site drainage. Cracking has been observed at all four corners of the building as well as at other limited locations within the stone foundation. It is not possible to tell if the cracking is a matter of joint deterioration due to uncontrolled rain runoff, if one-time

building settlement caused the cracking, or if movement is on-going. The installation and monitoring of simple tell-tale gauges will enable observers to determine if movement is still occurring. If so, a structural engineer must be consulted. If not, the solution to correct the underlying cause of the condition may be as simple as installation of the roof and perimeter drainage system recommended in this report.

While much of the fenestration is in good condition, many wooden window openings are deteriorating because of open or otherwise absent storm windows. Like North Hadley Village Hall, no effective system exists to control rainwater runoff. This issue has had a detrimental effect on the fine wood work details, such as the columns of the eastern and western porches. On the west side, one decorative column on the corner is grossly askew while another is missing altogether. These columns serve the structural role of the supporting the roof above. Temporary posts, or “lally columns,” should be installed immediately and remain in place until such time as proper restoration work can occur. Entry to the building is via three sets of locally-quarried stone steps. While the runoff and subsequent heaving has had a relatively minor effect on the western steps, the damage to the stone at the northern and eastern locations is extensive.

These stair systems use brick masonry, or “stringers,” as structural supports. After years of water intrusion, these brick supports have failed and collapsed because the stone joints have not been maintained by either re-pointing or caulking. As a result of this failure, as well as the stone’s inability to bend, several treads have snapped. Similarly, the metal anchors used to hold the railings in place have rusted and expanded causing the stone treads to split. These dramatic, very expensive problems are the result of poor or no maintenance and a failure to control rainwater runoff. While new drainage systems will mitigate the continuing erosion of mortar joints affecting the brick walls and stone foundation, as well as the painted wood and trim and stairways, they are not the end-all solution. The new drainage system will need to be maintained and monitored through biannual inspections and the removal of debris from the gutters. Failure to do so will simply add a new system to the list of problems at Russell School.

Russell School is a well-designed and solidly constructed municipal building. Aside from the maintenance required, its original slate roof is in good condition and the masonry of the envelope has held up well despite a failure to keep the systems in order. While originally designed as a school, it has the physical presence, interior spaces, natural lighting and desirable location that would suit other uses equally as well. Maintaining the use of an existing structure within its site significantly lessens its carbon footprint and the material waste, energy and cost required to replace or demolish it.

#### Hadley Town Hall

The exterior of Hadley Town Hall is in very good condition. Aside from some relatively minor exterior work, routine maintenance is all that is required to maintain the integrity and prolong the service life of the building. The interior finishes of Town Hall are neither historic nor significant as defined by the Secretary of the Interior’s historic preservation standards; but they are performing well and are in very serviceable condition.

An exterior maintenance plan should be created and funds appropriated to keep the building in its current condition. With relatively little money (approximately \$20,000) all systems can be improved to a maintenance-level condition. This should be the Town’s goal for all of its owned buildings. Maintenance is the single most critical treatment for extending the life of any

property. It will slow the process of deterioration and extend the service lives of the historic fabric and systems of the building envelope. When evaluated and measured in context, the costs associated with maintaining a building like Hadley Town Hall is far less than the cost to rehabilitate or replace the building systems and materials. It also mitigates the potential for business interruption and minimizes the disruption to normal operations in and around the building. The Town may elect to develop a Phased Interior Renovation Plan that will guide it in future interior renovations when the finish systems fail and funds become available.

## PRIORITIZATION OF TASKS

During the conditions assessments, the various systems of the buildings were examined for existing condition and performance. Each was evaluated in context relative to its importance as an element of the envelope, assessed based on known, acceptable standards, and described according to subjective terminology. Loosely defined, these terms are:

Excellent	<i>the brief moment that a system is brand new or completely restored; this Condition descriptor is symbolic only</i>
Very good	<i>the next moment, after the new or restored system is completed; regular Inspections will suffice until maintenance is required</i>
Good	<i>a system that is functioning properly and routine maintenance is needed; Painting, replacing slates and repointing masonry are maintenance tasks</i>
Fair	<i>a system that is functioning adequately but work is needed, beyond Routine maintenance, to improve system performance</i>
Poor	<i>a system that is not functioning adequately; significant work will be Needed to restore the system to an acceptable condition</i>
Very Poor	<i>a system that is not functioning or absent; wholesale replacement of some or all of the components of the system are necessary</i>

Using the above-described criteria for evaluating necessity, the various tasks to bring all systems to a ‘good’ or better condition were assigned a level of criticality. For example, while the chimney stack of Russell School is in poor condition, it is of relatively low criticality because it is neither adversely affecting the performance of the heating system nor is it posing a danger to the structure or persons below. Conversely, the repair of storm windows at Russell School has been given a high priority of importance because open and missing storm windows are allowing otherwise ‘good’ windows to be destroyed. Minimal effort and cost will stop a process that is causing thousands of dollars in damage.

The recommendations of the Plan have been prioritized accordingly and categorized by the following timetable:

Immediate	<i>within twelve months</i>
Intermediate	<i>within one to three years</i>
Mid-Range	<i>within four to six years</i>
Long Term	<i>within seven to ten years</i>

Additionally, certain tasks were identified under a fifth, unclassified category as routine maintenance. While roof and flashing assemblies generally top such lists, there were no active leaks detected in Russell School and investigation indicates that North Hadley Village Hall leaks at only one location during certain conditions. The greatest concerns are centered on the wide-reaching effects of poor roof and site drainage at Russell School and at North Hadley Village Hall. Also, there are potential structural issues at each that warrant further investigation. The prioritized tasks were grouped, where appropriate, and correlate with the phased timeline for implementation of recommendations.

#### SUMMARY OF COST ESTIMATES

North Hadley Village Hall	<b>\$ 636,000</b>
Russell School	<b>\$ 839,000</b>
<u>Hadley Town Hall</u>	<b>\$ 23,000</b>
<i>Total</i>	<b>\$ 1,498,000</b>

Estimates of cost assume that all work is performed at prevailing wage rates in compliance with the Davis-Bacon Act and state regulations. The estimates include the costs to perform the itemized tasks and 20% for a general contractor's fee for project management over a ten-year period. An additional 20% has also been identified to account for the costs of an architect and/or engineer's design services. Design service fees, estimated to be \$300,000, are not covered by some funding sources so are not included in the overall costs. Design fees can fluctuate by 5%, and will tend to be higher if the work is phased as opposed to a single project. Similarly, each time a contractor mobilizes there will be associated startup costs- contracting for multiple projects will cost more than a single project.

Labor costs were calculated and based on published data in the R.S. Means Guides for facility and commercial construction. Labor rates were then adjusted to the prevailing local wage rates for each task. It should be noted that the Means Guide projects a 25% increase in labor pricing for restoration work. Further, there is a scarcity of contractors who are skilled and trained to successfully undertake historic preservation projects. A 10% contingency was factored in to account for unforeseen conditions that are typically uncovered during the restoration of historic properties.

Material and labor costs are subject to uncontrollable economic conditions. Tax rates and workers compensation insurance rates show no sign of decline. It can only be assumed that these costs will continue to increase. A 3% inflation factor, compounded annually, was assumed for the purpose of projecting costs over the ten-year timeframe of the Plan. As mentioned in the *Sources of Funding* section following, bonding against future CPA revenues in the near future will provide the Town with the financial ability to restore entire structures at once. Hence, the many and varied risks and unpredictable factors discussed, which are inherent to a ten year plan, may be avoided completely.

There is potential for additional costs associated with State Building Code and Architectural Access Board regulations (780 CMR and 521 CMR) that may be triggered by the work recommended in this Plan.



## SOURCES OF FUNDING

### Local, State, Regional, Federal, and Foundation Grants

This portion of the Plan is the result of research to identify local, regional, state, federal, foundation and other funding sources potentially available to complete the restoration of each building. Existing municipal resources are examined and presented as well as a discussion of allowable Community Preservation Act uses. This section, when coupled with the *Prioritization of Tasks* section lays out the groundwork for the *Timeline for Phased Implementation of Recommendations*. With the exception of the Massachusetts Historical Commission's Massachusetts Preservation Projects Fund (MPPF), few grants are available to municipalities. The MPPF is a state-funded, 50% reimbursable matching grant program established in 1984 to support the preservation of properties, landscapes, and sites (cultural resources) listed in the State Register of Historic Places which these three buildings qualify for. In addition, the MPPF provides funds to make historic properties, landscapes and sites universally accessible when historic fabric is affected. Applicants must be a municipality or nonprofit organization. Between the CPA and MPPF, funding approximately \$1.5 million in restoration work over ten years should be viewed as a readily attainable goal.

### Bonding Against Future CPA Revenues

Alternatively, the Town may elect to bond against future CPA revenues to finance public-purpose projects. The Community Preservation Act (MGL c. 44B, Section 11) provides that "a city or town ... may issue, from time to time, general obligation bonds or notes in anticipation of [CPA] revenues to be raised ... the proceeds of which shall be deposited in the Community Preservation Fund." The benefits of bonding to complete CPA projects include:

- Larger, more expensive projects can be financed than if funded solely through the CPA funding cycle;
- Economies of scale can be achieved with the financial ability to restore an entire structure at once. The cost to specify and design and mobilize nine separate projects is significantly greater than one or two;
- Change orders for new work that becomes necessary over a long time span can be avoided;
- Rising labor and material costs are avoided;
- Future payments over the life of the bond are cheaper relative to the value of today's dollar;
- Current, historically low interest rates make bonding highly advantageous; and
- A portion of the annual revenue stream remains available for other worth projects.

Numerous communities have utilized this tool to issue bonds against their future CPA revenue stream to fund projects with budgets that exceed annual CPA appropriations. The Massachusetts Department of Revenue maintains a database of all CPA projects, including bond-funded projects. As of March 2008, over 40 communities have issued bonds for 71 different CPA projects, raising roughly \$112 million through bonding.<sup>1</sup> If CPA is revoked at some point

<sup>1</sup> Community Preservation Coalition, "Bonding CPA Projects" March 2008 newsletter  
[http://www.communitypreservation.org/enews/Bonding\\_CPA.htm](http://www.communitypreservation.org/enews/Bonding_CPA.htm)

afterward, MGL c. 44B, Section 16(b) requires that the local surcharge remain in effect until all obligations incurred prior to revocation are fully discharged.

## TIMELINE FOR PHASED IMPLEMENTATION OF RECOMMENDATIONS

This portion of the Plan is a product of the *Sources of Funding* and *Prioritization of Tasks* sections described above. It indicates the timeline for phased implementation of all recommendations, identifying the applicable year, cost estimate and funding source. This is the road map for the Town to follow to successfully facilitate the preservation of Hadley Town Hall as well as the restoration of Russell School and North Hadley Village Hall over a ten year period. The tasks listed for the three buildings during Year One should be implemented regardless of the funding methods. The work at Town Hall will significantly reduce the potential for future costly repairs. The results of the probes recommended for Village Hall may significantly impact the overall timing of the work and its costs and the monitoring of Russell School's foundation may have similar effect. Shoring-up Russell School's West porch roof is a matter of public safety.

## MAINTENANCE

The most important component of any plan to preserve a historic structure is maintenance. As soon as a building is constructed or rehabilitated, the natural process of deterioration begins. Preservation has been 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 on-going maintenance and repair of historic materials and features rather than extensive replacement and new construction."<sup>2</sup> Maintenance is the most important preservation treatment for extending the life of an historic property. It will slow the natural process of deterioration and prolong the natural service lives of the historic fabric of the envelope. Indeed, obtaining certain grant money is contingent on the building owner establishing a long-term maintenance fund. When considered in the long term, the cost to maintain historic structures is significantly less than the restoration of historic systems and materials, and it creates far less disruption to building occupants. When creating a maintenance program for a historic building, it is strongly recommended that a preservation specialist and/or experienced contractor be consulted. The maintenance program should clearly identify and describe courses of action that are specific to the building:

- Lists and schedules for periodic inspections of each system. These should be set-up in a 'checklist' format, to ensure uniformity of procedures over time;
- Blank elevations of the building to be marked up during inspections and after any work takes place;
- A full set of actual photographs that comprehensively document the conditions of the entire structure as well as a digital copy of each. This album will grow over time;

<sup>2</sup> National Park Service, Nationwide Programmatic Agreement Toolkit for Section 106 of the National Historic Preservation Act, glossary of terms

- An emergency list of contractors who can be called upon in an emergency, especially HVAC, electrician, plumber, and roofer;
- Individualized procedures for the historically appropriate handling of the individual systems and materials of the building; and,
- Hard copies of completed reports that document all work and inspections. Include copies of estimates, contracts, warranty cards, paint colors, mortar recipes, materials sources, and any other information that will be needed by future stewards of the structure.

It is strongly recommended that the Town assess its capacity to maintain all municipally-owned properties. Personnel resources engaged in maintenance activities should be allocated as needed to regularly inspect and service the systems of all Town-owned buildings. Nearly all issues at Russell School and North Hadley Village Hall are a direct result of deferred maintenance. As good stewards of their assets, the Town has an obligation to protect and maintain all of its buildings, historic and otherwise. Building maintenance must be a line item in the Town budget each year with a realistic amount of funds appropriated.

#### INCREASING PUBLIC AWARENESS OF HISTORIC PRESERVATION

Increasing public awareness of historic preservation in Hadley will require a dynamic approach and multi-pronged initiative to be successful. Some of the recommended actions are relatively involved, such as creating an annual Olde Towne Festival, and involve others from the community in planning, coordination and execution. Others, such as the creation of social media and websites, are low-hanging fruit: ready, accessible, inexpensive—often free—methods to reach a wide audience quickly and easily. Increasing public appreciation of historic resources that contribute to the heritage of the built environment requires that people develop a connection with place. These ideas can all be implemented by motivated individuals who are dedicated to promoting the goals and objectives of the Hadley Historical Commission and largely without great expense. Some involve integrating the historic buildings into community members' life experiences. Through such association, people will realize an intrinsic value in the structures as they become a part of their memories. Pride of place is critical.

## **PART 2**

### **CONDITIONS ASSESSMENTS AND DETAILED ESTIMATES OF COSTS**



## NORTH HADLEY VILLAGE HALL

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#### Conditions Assessment

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## **CONDITIONS ASSESSMENT**

### **EXECUTIVE SUMMARY**

The present condition of North Hadley Hall is primarily a result of lack of maintenance and inappropriate repairs. However, the problems look worse than they are. Much of the original fabric of the exterior is sound and serviceable, considering its age. Most deterioration is a result of water infiltration caused by a poor roof system, failed paint and improper drainage around the perimeter of the building. The structure is made from old growth wood and many of the building's components have held up well against water and sun damage. North Hadley Village Hall is a wonderful example of a hand crafted wood structure and stopping the deterioration now will allow North Hadley Village Hall to last another 150 years.

The following estimate of costs is summarized by systems:

<i>Foundation</i>	\$ 49,200
<i>Clapboard replacement</i>	\$ 11,290
<i>All roof systems</i>	\$188,312
<i>Windows</i>	\$ 54,084
<i>Chimneys</i>	\$ 11,280
<i>Cupola</i>	\$ 12,902
<i>Carpentry</i>	\$ 27,187
<i>Paint</i>	\$173,850
<i>Contingency</i>	\$ 52,810
<i>Total:</i>	<b><u>\$580,915</u></b>

The prioritized recommendations in this preservation plan are listed below. They take into consideration the importance of controlling the water penetration into the structure and reversing the trend of deferred maintenance. The actions recommended are categorized in the following order by criticality:

#### **IMMEDIATE (WITHIN THE NEXT 12 MONTHS)**

- Probes of possible structural issue at foundation
- Roof – Installation of new roof and flashing systems
- Gutters – New roof drainage system installation
- Carpentry – Repairs identified, as needed to complete roof/gutter work
- Chimney Repairs – coordinated with roof installation

#### **INTERMEDIATE (IMPLEMENTATION IN YEARS 1 TO 3)**

- Foundation – Repairs to brick and stone, including porch steps
- Cupola – Installation of bird netting
- Carpentry – Restore clapboard and other wood trim and plates, as needed
- Paint – Scrape, prime and paint, as needed

#### **MID-RANGE (IMPLEMENTATION IN YEARS 4 TO 6)**

- Windows – Complete restoration per window schedule

## LONG-TERM (IMPLEMENTATION IN YEARS 7-10)

Window – Installation of storm windows

## INTRODUCTION

This report evaluates the historic and non-historic exterior elements of North Hadley Village Hall. The Village Hall was originally built in 1864 as a two-room schoolhouse. Today, it serves as a Parks and Recreation Center and Firehouse Garage for the town. It is listed on the National Register of Historic Places as part of the North Hadley Historic District and is on the Connecticut River Scenic Byway.

Our team has reviewed existing documents and reports, surveyed the structure in detail and prepared documentary photographs and exterior elevations. Included in this report are physical conditions assessments, recommended strategies and a budget estimate for repairs.

All surveys were hands on, visual assessments; no invasive probes were used. The report is organized by building systems. Overall conditions and a discussion of materials usage is followed by an examination of general issues and specific system failures. Areas of deterioration and the causes are examined and the means to mitigate or eliminate further failures and degradation are recommended. The repairs within each system are broken out and categorized according to priority. Specific repair recommendations are provided to address the issues identified in a historically appropriate manner. An estimate of costs to perform the preservation work is provided for budget purposes.

Various addenda accompany this report. Drawings illustrate the context and location of repair recommendations. Together with the detailed cost estimates they provide a qualitative and quantitative graphic representation of the preservation needs of the building. (Annotated photos within the text are keyed to detailed drawings of the North Hadley Village Hall's elevations and illustrate the state of the conditions.)

The prioritized list of physical repairs is based on condition and historical significance. Recommended strategies are based on the Secretary of the Interior's Standards for the Treatment of Historic Properties.

## BUILDING DESCRIPTION

Hadley North Hadley Village Hall retains architectural integrity and is significant as an example of the Italianate style in Hadley. It is located on the east side of River Road in the center of the village of North Hadley. It is a 2-story structure with a basement and attic. The L shaped footprint consists of a main building 63' x 38' x 43' high and a 39' x 32' x 41' high ell. It is located in and a contributing structure of the North Hadley Historic District (National Register of Historic Places reference no. 1993-001475.) The main structure and ell have gabled roofs. Both gables have closed pediments with large raking cornices. The building has retained all its Italianate features: a symmetrical bell tower or cupola, arched and hooded window openings, cornices with large eaves and paired brackets, and elaborate architrave with casement moldings around doors and windows.

The front facing, west façade of the main building features a tripartite window on the second floor. Windows on the First Floor are rectangular and those on the Second Floor have segmental arches. The main entry has a hooded portico with elaborate brackets. The original front and side doors are paneled and all have transom windows.

Three chimneys project above the roofline. A large, square cupola also sits prominently on the pressed metal roof above the main entrance. Paired, fully arched and louvered openings on each side of the cupola are topped with a four-way, cross-gabled roof. Four elaborately carved brackets sit on each gable and appear to be cradling a wooden spire high above the roof.

## **CONSTRUCTION**

The original building was constructed in 1864 as a two-room schoolhouse, with a community center on the second floor. The ell was added in 1871 to accommodate a third class room.

The original foundation is mortared rubble stone topped by several courses of mortared brick above grade. The brick is faced on the outside of the west, south and north elevations of the main building with cut stone. The brick is exposed and painted red at the east elevation and on the ell. The 1871 addition's cellar was buttressed and filled with concrete in 1963 to accommodate the heavy fire trucks that are now housed in the firehouse garage. Concrete buttresses are visible on the exterior.

North Hadley Village Hall is a square-ruled, timber-framed structure. The rafters of the roof frame are skip-sheathed with wood battens. The roof is covered with pressed metal tiles fastened to the battens which is not its original roof (an early photo shows a standing seam metal roof). Wood clapboard clads the entire structure. More than half of the clapboard appears to be original, as evidenced by the square-head nails. Most of the decorative trim is original to the structure and painted.

There are fifty-two (52) window openings. Eleven different types of windows have been identified; however, most are single hung, six-over-six and operated by rope and pulleys. The original window sashes are of mortise and tenon construction with wood pegs for fasteners. Vinyl, tilt-out windows were recently used to replace twenty-five (25) of the original windows.

Exterior changes were made to the 1871 addition in 1963 with the firehouse conversion. A small bump out extension was added to the front west façade and two large, metal garage doors were installed. In addition, a hollow metal door was added as a side entrance to the fire station. Most original material was permanently removed from the interior of the space and Ground Floor West Façade. The cupola was restored in 2000. It originally held the school bell and, today, is a haven for pigeons.

## **MATERIALS USAGE**

Stone is used in three different applications at North Hadley Village Hall. Rubble stone is used structurally for the foundation wall. Much of the rubble stone appears to be granite, with sizes ranging from small clinkers to large boulders. The stone of the foundation is set in a lime-based mortar. Slabs of 5" thick stone measuring approximately 24" x 60" comprise the finished foundation above grade and large, honed blocks of granite are used for the main entry steps and porch. The slabs are backed



with brick above the rubble foundation of the basement walls. The stone appears to be Pelham or Monson gneiss obtained from local quarries. The same stone can be seen in buildings on the Amherst College campus, Hadley Town Hall and Hadley's Russell School. Soft brick is used structurally in the foundation that is above grade. The brick creates a level shelf for the wood frame. It is not protected on the east elevation by a capstone as it is on the west, south and north elevations. Harder, well-fired brick is used in the three chimneys that protrude through the roofline. The brick is laid in common bond in a lime-based mortar.

North Hadley Village Hall is constructed entirely of wood, most likely eastern white pine. The frame, sheathing, clapboard, windows, doors, trim and all of the elaborate Italianate details are made from old growth wood. Old growth wood is very durable, due to the closeness of the growth rings, abundant tannins and absence of sapwood. The durability of the wood used during construction is the reason why so much of the original fabric has survived in spite of a lack of maintenance. Glass is used in the windows and door transoms. Many of the original windows still have their original lights. These glass lights were hand-made of crown or cylinder glass. Early 20<sup>th</sup> century replacements would be made from cylinder glass. Both types show the polish and imperfections that are typical of hand-made glass.

The entire roof of North Hadley Village Hall, including the portico roof, is sheathed in 12" x 18" embossed sheets of tin coated iron. Tin roofs were meant to be painted for durability; however there is little evidence of paint on the roof. Snow guards have been installed to prevent snow from sliding off the roof and creating injury below. Snow guards were also designed to prevent the banking of snow and ice at the eaves. Square cut, ferrous nails have been used for fasteners throughout the structure. The west facing shed roof off the new ell is covered with asphalt shingles.

## **PROBLEMS OF REPAIR**

### *Foundation*

The rubble stone foundation is typical of a 150-year-old timber structure. It has lost much of its mortar; but is structurally sound according to previous structural evaluations (see References). The top brick shelf has deteriorated in places, most likely caused by capillary action from ground water and splash back from the roof. The bricks have spalled and, in some locations, are missing. Brick dust is prevalent on the interior of the cellar and between the exterior capstones. [Figure 1]

The stone facing on the exterior is sugaring (a breakdown of the matrix of the stone) from the use of deicing salt and the action of freeze/thaw cycles. The stone has moved slightly, creating a slight serpentine effect across the bottom of the structure. [Figure 2] This may be due to natural building settlement and over time. The problem is slight and does not threaten the structural integrity of the building.

Where the brick is exposed to the weather at the foundation and chimneys there are several areas of deterioration caused by water penetration and freeze/thaw cycles. This is worsened by the latex paint coating that traps moisture inside the material and does not allow it to breathe and the water to evaporate.

## *Walls*

North Hadley Village Hall is clad with wood clapboards. More than half of the clapboard appears original, as evidenced by the square-head nails. Due to the loss of protective paint cover, there are large cracks and extreme cupping from an alternating cycle of soaking and surface drying. Many of the nails that secure the cladding are forcing their way out- a result of “jacking” where the ferrous nails rust, causing the nail holes to expand and the nails to loosen their grip. [Figure 3]

Biological growth is found at several localized areas, particularly on the east side of the building. The problems posed by deteriorated wood and biological growth must be addressed and wood allowed to dry thoroughly before repairs are carried out.

## *Roofs and Flashing*

Roof tiles are rusting and their corners and edges are turned down. There are no drip edges present anywhere on the structure, causing water to work its way around, under and along the cornice. The turned-down roof edges are directing runoff back toward the building instead of away from it. [Figure 4] The most serious issues are the areas near the valleys and flashings where the roof of the 1871 addition meets the original structure. However, this construction detail is channeling water across the entire façade, which is the primary cause for the paint, wood and stone deterioration throughout the building. The roofing tiles are lapped and seamed to adjoining tiles and nailed at the top of the battens. Because of the manner in which the pressed metal roof tiles are installed, repair or replacement is not possible. Removal of a tile would destroy adjoining units because of the now-brittle seams and destructive means necessary to free the tiles from the fasteners.

The west facing shed roof of the ell is covered with asphalt shingles that have a limited life span and are beginning to show wear.

North Hadley Hall has three chimneys. All three are composed of modular 4 x 2 x 8 inch bricks running 36 courses tall from where they protrude through the roof plane. Each is corbeled at the top, a detail that adds decoration to the stack while serving the functional role of helping to shed water. All chimneys have a red paint coating. The chimneys show serious deterioration at the top courses where bricks are broken and the paint is hiding other areas where repointing is needed. There is lichen on each chimney, particularly the northwest and southwest chimneys. Flashing assemblies are curled and pulling away from the brick/roof connection. [Figure 5]

## *Windows*

Twenty-five (25) of the original wood windows were replaced with modern vinyl tilt-out types. These replacements do not match the originals in style or color and are inappropriate for an historic building of this architectural character and significance. They were installed recently but are already showing signs of failure- window tracks are deforming and sashes are beginning to warp from UV deterioration making them difficult to open, close and lock.

Generally, the remaining original wood window sashes are sound and serviceable. Except for the basement sash, both top and bottom sash and their frames show no signs of deterioration, and are not separating from their rail/stile connections. The original rope and pulley systems are no longer



Figure 1- North Elevation at basement showing brick spalling.



Figure 2- West Elevation showing minor shift of capstone, washed-out mortar and brick dust.



Figure 3- East Elevation showing just jacking at clapboard nails.



Figure 4- West Elevation of Ell showing poor roof edge detail.



Figure 5- North Elevation showing roof flashing at chimney.

working and most sashes are painted or nailed shut. There are several broken muntins and the glazing of every window needs replacement. Paint is peeling and much of the wood is exposed. In several cases, plastic sheeting and plexi-glass have been installed on the interior as storm windows. This causes condensation and accelerates the deterioration process. [Figure 6] There are several broken lights which are covered by plywood or plastic. Locks are missing or broken on all of the windows.

The window frames, architraves and moldings are in sound, serviceable condition and need only proper wood preparation and painting. Deterioration is limited to a few locations that require Dutchman-type repairs (insertion of a wood piece to replace a deteriorated or missing section) or full replacement.

### *Doors*

There are nine exterior doors and eight different types at Village Hall. Building access is gained through the large double doors at the West Façade and the single door on the South Façade. These doors are sound and in serviceable condition although they do allow extensive air infiltration. The firehouse has two entries but one door is inoperable, according to a source within the fire department. The overhead garage doors are in very good working order. The East Elevation has two boarded-up, inoperable doors that provide egress from the basement.

### *Wood Trim Details*

Wood details at Village Hall are in fair to good condition. Most of the wooden elements show signs of weathering but are quite sound. As expected, limited deterioration is found in localized areas where water constantly drips and collects, unable to drain away.

The Italianate style of Village Hall features a large and elaborate entablature where the façade meets the roofline. The raking cornices at the gabled ends have staining from the rusted, metal roof, peeling paint and limited wet rot. The double-bracketed cornice that encircles the entire structure shows deterioration in places, particularly on the South Elevation. Several of the soffit boards are failing and not properly secured to the sub-structure. Some molding profiles are missing or have become detached. Most of the double brackets are sound.

The decorative architraves and moldings for all the windows are in sound condition. There are few signs of deterioration and only a few locations that need repair or replacement. Some window sills exhibit splitting and checking, typical signs of age in window assemblies.

The West Portico is in sound condition except for the roof, eave and cornice. The roof is sheathed in flat-lock seamed metal sheets of galvanized (zinc-coated) steel, similar to the main roof. They are rusted and deteriorated and allow water to penetrate the roof structure and cornice. The eave and cornice of the portico roof have rotted and collapsed. The Portico's large brackets are a distinguishing architectural feature. The lower right bracket has been damaged and part of its original profile has been lost.

There is a 4x4 replacement post at the one-story covered porch on the South Elevation. The post is leaning and deteriorating from the bottom up.

The entire structure of North Hadley Village Hall is surrounded by a prominent water table, which consists of a large bull-nose molding above a fascia board. The water table is solid and secure in place. One small area—the north facing wall of the 1871 ell—shows signs of deterioration. Water from the eaves and valleys above is pouring down the exterior wall and causing the deterioration.

### *Paint*

North Hadley Village Hall's appearance and condition is mostly due to poor maintenance. The condition of the exterior paint is causing more deterioration to the underlying wood than if there were no paint because it is holding moisture against the wood rather than shedding it. Every type of paint failure is present—crazing, cracking, peeling—exposing bare wood. Every wood element (clapboard, windows, trim, window hoods, cornice, doors, and water table) needs to be stripped of all remaining paint, properly prepared and painted.

Exposure to sun and water are the main causes of wood deterioration. The primary purpose of paint coatings is to exclude moisture and UV radiation. Proper coatings slow the deterioration of the exterior cladding and decoration and, ultimately, the structural members and interior finishes.

Based on age, lead is most likely present in the paint on the exterior of Village Hall. Precautions must be taken with respect to lead dust and the proper disposal of lead paint residue while adhering to state and federal laws. All actions that involve the handling of painted wood must be performed in full compliance with the EPA's *Renovation, Repair and Painting* (RRP) regulations by a certified contractor if the presence of lead is detected.

### *Cupola*

The cupola was restored in 2000. Although the cupola is still sound, there are signs of deterioration because of deferred maintenance- primarily painting touch-up. Corner boards are beginning to split and rot and paint is starting to peel in several areas. [Figure 7] Pigeons are roosting inside the cupola, coming and going at will through the louvered openings.

## **CAUSES OF DETERIORATION**

Because of poor maintenance, most of the deterioration is a direct result of water infiltration. Uncontrolled moisture is the most prevalent cause of decline in older buildings. It leads to erosion, corrosion, rot, and the destruction of materials and finishes. Unchecked, moisture infiltration into building systems will lead to the eventual failure of structural components and interior finishes.

Several visits were conducted during rainy days and one day with extreme snow and ice melt. No standing water or moisture of any kind was observed in the basement of North Hadley Village Hall. Exterior moisture is causing damage to the building from above and from below grade. Deteriorated portions of the roof system, failing flashing assemblies and inappropriate construction detailing; compounded by peeling and missing paint allows rain water to infiltrate cornices, pour down the sides of the building and enter through cracks near the windows and doors and washed-out stone mortar joints.





Figure 6- Interior window damage from condensation due to interior storm window.



Figure 7- South Elevation of Cupola showing water damage from roof run-off.

Below grade, saturated soil at the base of the building is wicking moisture up and causing deterioration of the rubble stone foundation and brick through capillary action. Called "rising damp," it has caused a whitish stain of efflorescence to appear on the interior and exterior bricks where the excess moisture has evaporated from the wall. The residue left behind is soluble salt and contributes to the deterioration of the brick. Left unaddressed, this may lead to sill rot and other structural issues.

The North and West Elevations are surrounded by an asphalt parking area that abuts the foundation. At the South and East Elevations, invasive vines and shrubs have taken root along the foundation, and the lawn is in contact with the brick foundation. Freeze thaw cycles and a high ground water table may be the reasons that the grade of the parking area now slopes toward the building instead of away from it. This has created a situation where water from both the roof and the parking area infiltrate the ground at the base of the building. The hardscape around the building is also causing severe splash-back against the building from roof run-off, probably the main cause for the mortar loss at the capstones. The exterior stone slabs are exhibiting evidence of salt crystallization in the form of stress cracking and powder fragmentation. Sodium chloride and sodium sulfate, two salts heavily used in de-icing, are readily absorbed into stone and brick. The mortar loss from between the stone slabs is permitting water and salt to penetrate the soft brick back-up behind the stone. Freeze thaw cycles, water infiltration at the building base, splash-back from the roof combined with heavy salt usage on the driveway, have exacerbated the problem particularly on the southwest corner and at the front entry portico.

## RECOMMENDATIONS

### GENERAL

The Secretary of the Interior provides four distinct but interrelated approaches to the treatment of historic properties. Each is defined, below, so that the recommendations of this conditions assessment can be weighed and considered in context:

- *Preservation* focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time;
- *Rehabilitation* acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character,
- *Restoration* is undertaken to depict a property at a particular period of time in its history, while removing evidence of other periods; and,
- *Reconstruction* re-creates vanished or non-surviving portions of a property for interpretive purposes.

The general recommendation of this report is to preserve and maintain the structure as it appears. All recommendations are in accordance with guidelines set forth by the National Park Service of the U.S. Department of the Interior. This includes in-kind replacement of elements of the various systems that have outlived their useful life.

Keeping water away from the structure is the highest priority in the preservation plan for North Hadley Village Hall. A new roof with proper flashing details, drip edge and roof gutter must be installed as

soon as budget and planning constrictions allow. The ground and, subsequently, the building will stay much drier by redirecting rain water away from the foundation. Splash back of runoff onto foundation walls can be reduced by sloping grades and removing asphalt paving, invasive vegetation and grass around the perimeter of the structure to a two-foot depth. Replace paved surfaces with  $\frac{3}{4}$ " gravel that extends one to two feet beyond the drip edge of the roof at a slope of 4% away from the building. Installation of a curtain drain system is also recommended around the perimeter of the structure to carry roof runoff away from the building to daylight if gutters are not installed or act as a channel if they are.

Stop plant material from contacting the building on all sides. Stop the use of salt on the front steps and entry driveway. The driveway should be removed and a new drive installed that is sloped away from the building. It is recommended that a permeable surface replace the asphalt. Use calcium chloride when de-icing is necessary.

Maintenance is the most important preservation treatment for extending the life of a historic property. It will slow the natural process of deterioration and prolong the natural service life of the historic fabric. A maintenance program manual should be created to clearly identify and describe courses of action that are specific to the building materials and systems and should schedule the frequency of undertaking such actions.

### *Foundation*

Replace broken and missing bricks on the interior and exterior. A mortar analysis should be conducted and joints repointed with mortar similar to the original in composition, strength and appearance. On the exterior at the south and east sides remove paint to allow the brick to "breathe" naturally. A landscaping plan to keep water away from the building will help reduce the impact of capillary action.

### *Walls*

Cracked, split, checked, and broken clapboards must be replaced, especially at the lower levels below the windowsills. Boards that are slightly cupped and lifting can be reused after removing all protruding nails, filling holes and reinstalled using stainless steel ring shanked nails.

### *Roofing and Gutters*

The current roof is not original to the structure. Because the metal tiles are no longer commercially available; are prohibitive to reproduce; and no source of salvaged units has been identified, it is recommended that a new metal standing seam roof be installed. Metal roofing over the cornices at the gable ends must be replaced on the west side and installed on the south side. It is recommended that new roofing be constructed with 24-gauge aluminum sheet metal with a baked-on enamel coating in a historically appropriate color. Cost estimates include all side and end wall detail work, flashing of protrusions, and disposal of old roofing materials.

It is recommended that copper gutters be installed at four locations along the eaves of the main structure and the eaves of the ell and an additional run of gutters be installed at the eaves of the lower porch/fire station roof. Install slip tubes and conductor pipes at the ends of each gutter run except at the inside corner where one outlet will service the ends of two runs. This downspout will drain onto the lower porch roof. Care should be taken to pitch the gutters appropriately so that the inside corner outlet



and, subsequently, the lower porch roof, is not overburdened. When calculating drainage capabilities, one square inch of outlet opening is required for each 100 SF area of roof surface being drained. Hence, the 4" outlets are more than adequate as each can service 1,250 SF of roof surface area. Install copper wire strainers at each outlet and check them biannually. If the strainers are maintained and allowed to perform their intended function cleaning the gutters will be limited to the troughs. Otherwise, leaves and debris will find their way into and clog the conductor pipes. If not maintained, gutters will do more harm than good. The introduction of gutters will require a commitment to maintenance of the system.

## *Windows*

Remove all remaining original window sash and have an expert with demonstrated competence in historic window repairs preserve them. It is recommended that window sash preservation include:

- removal of the sash (and installation of temporary plywood boards)
- removal and cleaning of all lights
- paint stripped to bare wood, repairs to broken muntins
- reconditioning to help preserve the wood
- reglazing
- priming and painting
- rope/pulley system reinstatement
- installation of spring-bronze weather-stripping
- locks installed
- reinstallation of sash
- repairs/replacement of stops

The Window Schedule in *Addendum C* lists each window individually and specifies the required work. Reinstall original rope and pulley systems, replacing rope with a bronze chain, allowing the sash to operate again. Apply spring bronze weather stripping to stop air penetration. Basement sash and their frames are rotted and need to be replaced. Reconstruct frames and sash with cedar or treated wood to inhibit deterioration.

Exterior storm windows should be considered as part of an energy saving plan. Exterior storms also protect the original windows, allowing the newly restored windows to last another 150 years. There are several "invisible" storm window options available for historic buildings. While interior storm windows appear to be an attractive option for achieving double-glazing with minimal visual impact, the potential for damage caused by condensation must be addressed. Moisture, which becomes trapped between the layers of glass, will condense on the colder, outer original window, and has the potential to cause deterioration. The correct approach to interior storm window use requires the creation of a seal on the interior storm while allowing some vapor to escape around the prime window. In actual practice, the creation of such a durable, airtight seal is difficult and there is no protection of the historic original windows from the elements. This system requires a level of vigilance with respect to inspection and upkeep that is not conducive to institutions that fail to properly maintain their buildings. Vinyl windows have a short life. When the vinyl replacement windows fail and need to be replaced in the future, replace them with new wood windows that match the original design, materials and details found elsewhere in the fenestration.

## *Doors*

Recommendations for each door are noted on the Door Schedule in *Addendum C* and include weather stripping the three doors that are in regular use. It is unknown why the basement doors on the eastern elevation are boarded up. Replace basement doors with new doors sympathetic to the building's design. Alternately, the door openings can be bricked closed, leaving a reveal to indicate the original openings.

The overhead firehouse doors appear to be serviceable and in working order.

## *Wood Trim Detail*

Plans to restore and preserve North Hadley Village Hall's wooden components should not be undertaken until the roof is replaced and rain gutters added. Repairs will include limited, in-kind replacement and Dutchman repairs. Prime and paint new wood on all sides, miters, butt ends, and scarf joints before installation with stainless steel trim screws or other appropriate fastener.

## *Paint*

Perform a paint color analysis for wood siding, trim, casings, windows, and doors to determine original color scheme. All actions that involve the handling of wood must be performed in full compliance with the EPA's Renovation, Repair and Painting (RRP) regulations by a certified contractor if testing detects the presence of lead.

All paint must be removed to bare wood because the original oil-based coating has alligatored and is holding moisture against the wood. In order to protect the original historic fabric, the least abrasive method possible must be used for paint removal. Pressure washing and sandblasting are inappropriate methods of removal. After paint removal, apply a high quality oil primer followed by two coats of exterior latex paint.

## *Chimneys*

Clean chimneys of paint and biological materials, being careful to use appropriate low acid/alkali cleaners and lowest abrasive method possible. Deteriorated bricks must be replaced with new brick similar in dimension and appearance. Perform a mortar analysis so that repointing work will employ the use of a mortar that matches the original in color, texture and strength. Coordinate the roofing work and repair of the chimneys to ensure that the protrusions are flashed correctly.

## *Cupola*

Pigeons in the cupola are a health hazard and must be dealt with right away. Remove the pigeons and their droppings by installing a barrier such as commercial grade bird netting or landscape cloth. Stainless Steel bird spikes can be installed on flat areas of the cupola to discourage landing.

## DETAILED RECOMMENDATIONS FOR EACH LOCALIZED CONDITION

### West Elevation

#### *Front Portico*

- Replace eaves and cornice.
- Replace roof with a new EPDM membrane roof. [Figure 8]
- Reset and repoint front entry steps. [Figure 9]

*Corner Boards* The corner boards at the southwest corner of the building are split and deteriorating [Figure 10] because water is being absorbed by the end grain of the boards. This is prevalent in other corner boards, especially around the garage doors.

- Replace corner boards at the west and south elevations.
- Boards must be back primed and end grain sealed to help prevent the same problem in the future.

#### *Window #W2*

- Repair center mullion.

#### *Window #W5*

- Replace left broken bracket [Figure 11]

*South West Eave* Figure 12 shows deterioration where the ell meets the original 1864 building.

- Reconstruct 4 feet of cornice to either side, including soffit and molding profiles.

### South Elevation

*Bowed Wall on South Elevation* There is a slight outward bowing of the clapboards between window # S-6 and window # S-7 on the South Elevation. [Figure 13] There is a similar bow on the corresponding interior wall. The brick shelf directly below the timber sill at this location appears to have collapsed. (It is visible inside the basement.) Brick spalling is evident inside the basement and appears as dust between the stone slabs on the exterior where the mortar is missing.

- It is recommended that a probe be carried out by a structural engineer to determine the cause of the bowing wall. The probe would involve removing and reinstalling the capstone on the outside to see the condition of the brick and wood sill in that area.
- Clapboard between the two windows must also be removed for further investigation.
- It is recommended that additional probes performed at one location on the West and North Elevations to determine the condition of the brick back up of the foundation generally.

#### *Porch Post*

- Replace the post with an appropriately sized one, using the pilaster next to the side entry as a model for reproducing the molding profiles. [Figure 14]

#### *Window #S5*

- Repair corner trim detail on hood.



Figure 8- West Porch roof deterioration at eave and cornice.

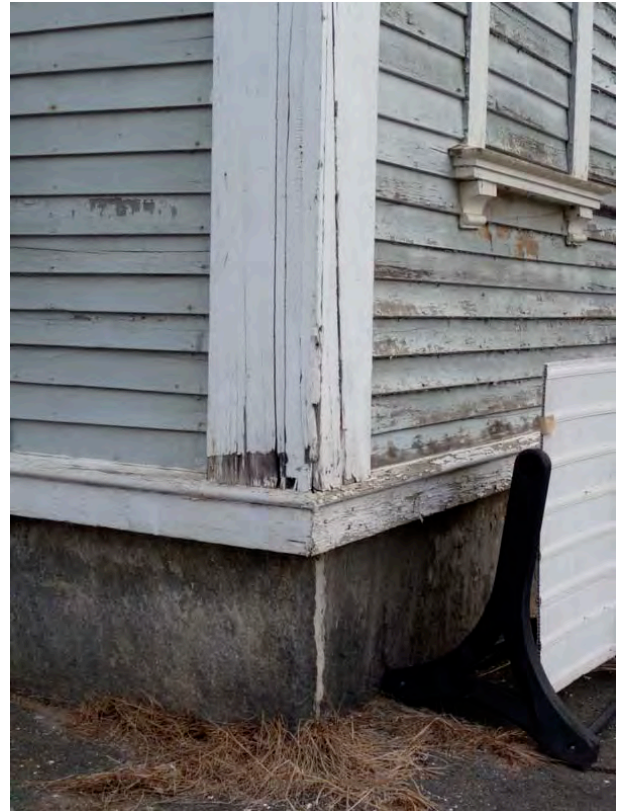


Figure 10- Southwest corner post deterioration from roof run-off and splash-back.

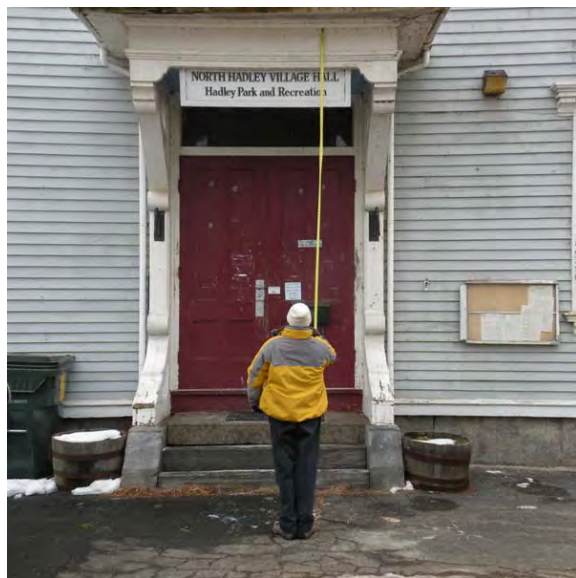


Figure 9- West Porch steps with differential settlement.



Figure 11- West Elevation window bracket requiring Dutchman repair.





Figure 12- Cornice and soffit deterioration from roof run-off at the Southwest corner elbow.



Figure 13- South Elevation showing bow in exterior clapboards.



Figure 15- South Elevation at Ell showing deteriorated cornice and soffit at pediment.



Figure 14- South Porch Elevation showing dislodged and deteriorated post.

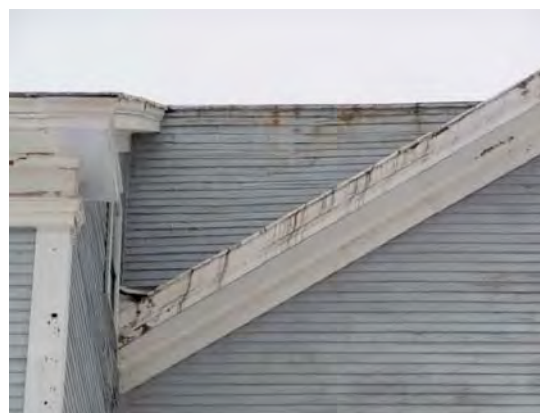


Figure 16- East Elevation at roof intersection showing poor construction detailing and deterioration from roof run-off.

*South facing gable of the Ell* Figures 15 shows a deteriorated soffit and rotted moldings along the lower part of the closed pediment.

- Replace sheet metal in the roof, running up behind the clapboards of the end wall.
- Reconstruct soffit and moldings for this section of the pediment.

*Foundation Brick* There are several areas where brick has cracked and spalled.

- Strip red paint.
- Repoint and as needed.
- Replace seriously deteriorated brick or re-use salvaged brick as appropriate.
- 

#### East Elevation

*Roof Intersection* [Figure 16] During the design and specification phase, a detail must be developed for the water to be diverted away from this corner and away from the building. All of the clapboard on the vertical wall must be replaced.

- Rebuild valley and flashing.
- Add detail to direct water away from the vertical wall.
- Reflash and reroof original main building where it meets the vertical wall.
- Replace 4 feet of raking cornice and eave.

*Window Hood* Window # E8 is missing its decorative hood. [Figure 17]

- Create and install new hood to match existing.

*Foundation* About one third of the brick foundation on this side of the structure is in need of repair. . Figure 18 shows the northeast corner with cracks, spalled brick, efflorescence, and inappropriate earlier repairs at the capstone.

- Remove red paint
- Repoint
- Replace spalled brick
- Rework previous repair by removing Portland cement, resetting stone and re-point with a hydraulic lime-based or natural cement mortar.
- Repairs to the brick foundation must be sympathetic in dimension and appearance to original masonry units and laid and pointed in with a hydraulic lime-based or natural cement mortar.

#### North Elevation

*Ell* Water runoff coming over the roof at the eaves is causing damage to several areas on the north side of the ell.

- Replace clapboard where needed.
- Reconstruct water table [Figure 19].



Figure 17- East Elevation showing missing window hood.



Figure 19- North Elevation showing deterioration at water table from roof run-off.



Figure 18- East Elevation at Northeast corner showing spalled brick, efflorescence and inappropriate repair at capstone.



## PRIORITIZATION OF TASKS

The recommendations of this preservation plan have been prioritized according to criticality. The immediate concern is to keep water away from the structure. The actions recommended are grouped in the following order:

### IMMEDIATE (WITHIN THE NEXT 12 MONTHS)

- Probe of possible structural issue on three elevations
- Roof – Installation of new roof and flashing systems
- Gutters – New roof drainage system installation
- Carpentry – Repairs identified, as needed to complete roof/gutter work
- Chimney Repairs – coordinated with roof installation

### INTERMEDIATE (IMPLEMENTATION IN YEARS 1 TO 3)

- Foundation – Repairs to brick and stone, including porch steps
- Cupola – Installation of bird netting
- Carpentry – Restore clapboard and other wood trim and plates, as needed
- Paint – Scrape, prime and paint, as needed

### MID-RANGE (IMPLEMENTATION IN YEARS 4 TO 6)

- Windows – Complete restoration per window schedule

### LONG-TERM (IMPLEMENTATION IN YEARS 7-10)

- Window – Installation of storm windows

## ESTIMATE OF COSTS

Pricing includes the costs associated with actions necessary to perform the itemized tasks (i.e., scaffolding, lift rental, dumpsters, temporary facilities, etc.) in today's dollars.

Foundation	<u>\$49,200</u>
<i>Probes</i>	<i>\$ 6,000</i>
<i>Patch and repoint brick foundation, as needed.</i>	<i>\$25,200</i>
<i>Repoint stone foundation in its entirety.</i>	<i>\$ 7,920</i>
<i>Front entry landing and stairs.</i>	<i>\$10,080</i>
Walls	<u>\$11,290</u>
<i>Cedar clapboard replacement, as needed.</i>	<i>\$11,290</i>



Roofing	<u>\$188,312</u>
<i>Replace sheet metal roof with new standing seam roofing.</i>	<i>\$130,099</i>
<i>Sheet metal roofing over the cornice to be replaced.</i>	<i>\$ 15,360</i>
<i>Reroof with new, flat-lock copper detail to shed water.</i>	<i>\$ 11,760</i>
<i>Replace asphalt shingle roofing with new asphalt shingles.</i>	<i>\$ 3,284</i>
<i>Install new copper gutters and accessories</i>	<i>\$ 14,916</i>
<i>Install new copper conductor pipes and accessories.</i>	<i>\$ 10,560</i>
<i>Replace flat roof over front entry with EPDM.</i>	<i>\$ 2,333</i>
Windows	<u>\$54,084</u>
<i>Preserve all existing original windows per window schedule.</i>	<i>\$37,800</i>
<i>Replace cellar windows with new.</i>	<i>\$ 3,684</i>
<i>Add exterior storm windows to existing original windows.</i>	<i>\$12,600</i>
Carpentry and Trim	<u>\$27,187</u>
<i>Replace rotted sections of the water table.</i>	<i>\$ 5,054</i>
<i>Replacement of rotted sections of fascia.</i>	<i>\$ 7,637</i>
<i>Replacement of rotted sections of soffit.</i>	<i>\$ 9,926</i>
<i>Replacement of rotted molding profiles within the cornice.</i>	<i>\$ 4,570</i>
Chimneys	<u>\$11,280</u>
<i>Repaint chimneys, price includes set-up to access each.</i>	<i>\$11,280</i>
Cupola	<u>\$12,902</u>
<i>Installation of bird netting within cupola.</i>	<i>\$12,902</i>
Paint	<u>\$173,850</u>
<i>Prep, prime and paint exterior.</i>	<i>\$173,850</i>
Contingency	<u>\$ 52,810</u>
<b>Total: <u>\$580,915</u></b>	

Alternative roofing material choices and pricing:

20 oz/SF red copper ...	\$189,235
20 oz/SF lead-coated copper ...	\$218,803
20 oz/SF tin-zinc alloy coated copper ...	\$248,371
24 gauge terne-coated stainless steel ...	\$295,680

Estimates of cost assume that all work is performed at prevailing wage rates in compliance with the Davis-Bacon Act (40 U.S.C. 3141-3148) and state regulations. Cost estimates include a general contractor's fee for overhead and profit, bonding, and the restrictive payment terms associated with certified payroll (aka "rate" work) of 20%. Architects' and engineers' fees are estimated as a separate line item (for funding purposes) and included in the *Timeline*, Part 4. Estimates of cost are for work performed as specified in the *Recommendations* section, above. Refer to that section for a detailed understanding of what each line item cost includes. Unit costs and quantities are included in *Table 1*, following.

Table 1- Unit Costs

<u>System</u> Task	Units	Price per Unit	Cost for Task	Sub- Totals	Total \$580,915
<u>Foundation</u>				\$49,200	
Probes	one	\$6,000	\$6,000		
Patch and repoint brick foundation, as needed	500 SF	\$50.40/LF	\$25,200		
Repoint stone foundation in its entirety	300 SF	\$26.40/SF	\$7,920		
Front entry landing and stairs	one	\$8,400	\$10,080		
<u>Walls</u>				\$11,290	
Cedar clapboard replacement, as needed	735 SF	\$15.36/SF	\$11,290		
<u>Roofing</u>				\$156,927	
Replace sheet metal roof with new standing seam roofing	4928 SF	\$26.40/SF	\$130,099		
Sheet metal roofing over the cornice to be replaced	one	\$15,360	\$15,360		
Reroof with new, flat-lock copper detail to shed water	one	\$11,760	\$11,760		
Replace asphalt shingle roofing with new asphalt shingles	311 SF	\$10.56/SF	\$3,284		
Install new copper gutters and accessories	226 LF	\$66/LF	\$14,916		
Install new copper conductor pipes and accessories	160 LF	\$66/LF	\$10,560		
Replace flat roof over front entry with EPDM	40 SF	\$58.32/LF	\$2,333		
<u>Windows</u>				\$54,084	
Preserve all existing original windows per window schedule	21 units	\$1,800	\$37,800		
Replace cellar windows with new	5 units	\$737	\$3,684		
Add exterior storm windows to existing original windows	21 units	\$600	\$12,600		
<u>Carpentry and Trim</u>				\$27,187	
Replace rotted sections of the water table	54 LF	\$93.60/LF	\$5,054		
Replacement of rotted sections of fascia	74 LF	\$103.20/LF	\$7,637		
Replacement of rotted sections of soffit	94 LF	\$105.60/LF	\$9,926		
Replacement of rotted molding profiles within the cornice	34 LF	\$134.40/LF	\$4,570		
<u>Chimneys</u>				\$11,280	
Repoint chimneys, price includes set-up to access each	200 SF	\$56.40/SF	\$11,280		
<u>Cupola</u>				\$12,902	
Installation of bird netting within cupola	128 SF	\$100.80/SF	\$12,902		
<u>Paint</u>				\$173,850	
Prep, prime and paint exterior	9500 SF	\$18.30/SF	\$173,850		
<u>Contingency</u>				\$52,810	
Hidden conditions	one	10%	\$52,810		

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## **ADDENDA**

## **ADDENDUM A**

### **INTERIOR VISUAL SURVEY**

#### **Introduction**

The purpose of the interiors assessment is to give a broad overview of the existing interior finishes and their state of repair from a historic preservation perspective. The finish systems reviewed in this report are flooring, wall treatment, doors, decorative trim, built-in elements such as millwork, and ceilings. The assessment was conducted using visual surveys. No destructive probes or dismantling of systems were performed. In limited cases, it was possible to inspect inside the false ceilings and obtain partial information on the finishes behind the present ones. This section of the report will provide a basis for establishing a scope of services for a future historic interiors conditions assessment. Where feasible, this report endeavors to provide a preliminary determination of the original finish scheme of the historic interior.

Building code and accessibility compliance reviews have been performed in the past in feasibility studies by James Bright and Associates, Architects and Bradley Architects, Inc and are not the focus of this report. Review of building systems such as electrical service, HVAC and fire protection would be strongly recommended once the Town of Hadley determines the long-term use of the building. The Engine Room of the Firehouse is not included in this report.

For purposes of clarity, the term “new” refers to present finishes applied over other finishes; “existing” is used to describe finishes covered by the new; and “original” is used to describe period 19th and/or early 20th c finishes.

#### **Summary**

Village Hall has a combination of original and new interior finishes and architectural elements. In most instances, it appears that the new finishes were applied directly over the previous (probably original) finishes which remain in place. Generally, the new finishes are in sound condition with little need for repair, except for false ceilings. The original and visible portions of existing finishes appear to be in sound condition. Destructive investigations would be required to determine the full extent and condition of the existing finishes.

The new finishes appear to have been installed at different times or for different constituencies and have no consistency of design. It is possible that by removing the new finishes the building interior could largely be returned to its authentic appearance by restoring the integrity of the original finishes.

#### **Flooring**

New finishes consist of unfinished plywood (2nd Floor Prep Room), carpet (Entrance Hall) and resilient floor tile in various spaces. It is likely that the original wood flooring exists beneath the new. Destructive investigations would be required to make that determination. The carpet and plywood appear to be in serviceable condition. The resilient floor tile is discolored, worn and cracked but has not become unglued and is in serviceable condition.

Original wide- board softwood flooring is found in support spaces. Unfinished softwood flooring can be seen in the closet below the Entry Hall stair [Figure 20] and may exist beneath the carpeted Entry Hall stair and 2nd floor landing. The Back Stair Hall and stair have painted softwood flooring. In general, the softwood flooring and painted finish are worn but sound. Narrow-strip hardwood flooring

is found in the main public rooms. The Second Floor Assembly Hall and Stage are of maple with a clear-coat finish [Figure 21]. It is in excellent condition. Narrow-strip oak and maple flooring with clear-coat finish are used on the First Floor and are in very sound condition, requiring only refinishing work. It is possible that the hardwood flooring is not original and was applied over the softwood flooring. Further investigation is required to make this determination.

### Wall Treatment

New laminate panels found throughout the major spaces of the building generally consist of thin plywood and wood-grain plastic laminate. (Newer marble-pattern plastic laminate panels can be found in the Kitchen and Toilet Rooms.) The wood-grain panels are in a variety of styles. All the laminated finishes need very little repair work. They all appear to have been laminated directly to the existing finishes below and extend only up to the height of the new false ceilings. The existing wall treatments (probably original) can be seen above the laminate in the ceiling cavities of various rooms [Figure 22]. They appear to be in sound condition. It appears likely that the original wall treatment still exists behind the applied finishes.

The predominant original wall treatment is composed of a painted, beaded wood board wainscot with chair rail and plaster above [Figure 23]. It exists or is evident in most of the main public rooms, support spaces and halls. In rooms such as the Assembly Hall the plaster has been covered with wood-grain laminate panels [Figure 24]. The wood wainscot is sound throughout. The plaster, where visible, appears to need minor work such as filling cracks. The finished surfaces, whether paint or varnish, require new coats.

The Firemen's Meeting Room, Prep Room and Kitchen appear to have floor to ceiling beaded wood boards, either painted or stained behind the new laminate panel wall treatment. The Firemen's Meeting Room is clad from floor to false ceiling with unfinished barn boards. The existing wall finish behind the barn board cladding can be seen above the ceiling line.

The First Floor Meeting Room has a variety of new wall treatments. These include floor-to-ceiling plastic laminate panels and laminated vinyl-wrapped panels above a plastic laminate wainscot. Original wood wainscot is visible behind some of the plastic laminate panels. Three integral slate blackboards, probably original, remain on the north wall and may still exist behind the new laminated finishes. Portions of a continuous painted wood tray at chair rail height around the perimeter of the entire room appear original while other sections appear to have been re-worked [Figure 25]. The tray is sound and the new finishes require restoration or repair work. The First Floor Office (Library) has original wood wainscot and two original slate blackboards with chalk trays [Figure 26].

### Doors

There are five types of interior doors used throughout the building. Approximately 40% are 4-panel that appear to be original [Figure 23]. They range from requiring restoration work to refinishing work. The others are a variety of solid-core flush, hollow flush and 6-panel. The main door to the Assembly Hall is original and has exterior door construction details.

None of the hardware appears to be original except some hinges. It is in general need of replacement.



Figure 20- Original flooring in closet.



Figure 23- Typical original wainscot, plaster and doors.



Figure 21- Maple flooring in Assembly Hall.

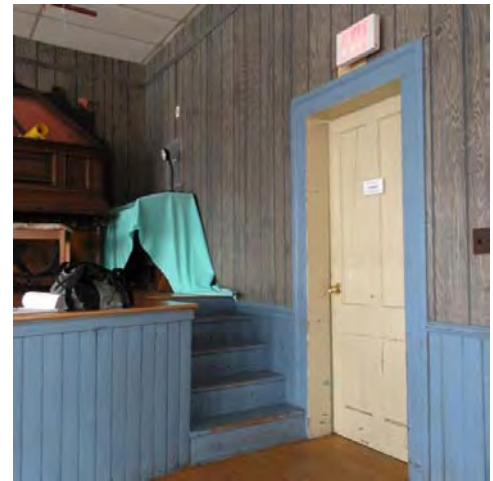


Figure 24- Assembly Hall: typical original finishes with modern paneling.



Figure 22- Original wood paneling and painted wood ceiling behind modern finishes.

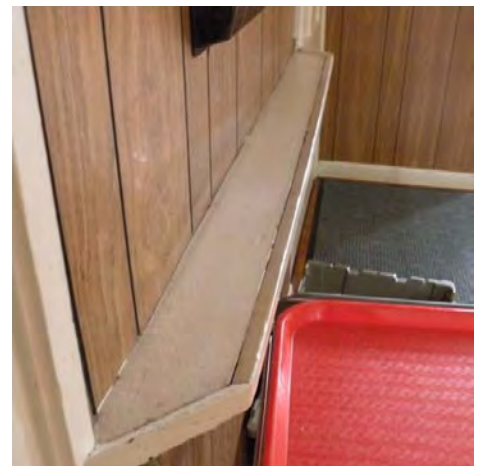


Figure 25- Original chalk tray in Classroom.

## Trim

Trim consists of interior window and door frames and stairs. Except for the Second Floor Prep and Firemen's Meeting Rooms and the Second Floor Back Stair Hall, all window frames and most door frames appear to be original and require little restoration [Figure 27]. Some window frames, such as those on the west side of the Second Floor appear to have never been painted and are in excellent condition. The Back Stair Hall railing is missing one square newel post. The handrails are recent additions. The wainscot and stairwell are clad with original painted horizontal wood boards [Figure 28]. The Entry Stair Hall and Cellar stair railings, composed of beaded wood boards that match the wainscot detailing within the rooms, appear to be original [Figure 29] and require little restoration. The handrails are recent additions.

## Built-ins

Millwork cabinets are limited to the Second Floor Prep Room and Kitchen. They have been (relatively) recently added. They are of similar generic design and finish. They're made from clear-coated unstained plywood and have plastic laminate counter tops. Both rooms are in serviceable condition.

## Ceilings

Except for the Entry Hall, Back Stair Hall and First Floor Corridor all rooms have 2x4 mineral fiber ceiling tiles resting on steel T-bars suspended 30" below the structure above. In general, the hung ceilings need removal or replacement: ceiling tiles are stained, sagging and mismatched, some are missing; the grid is discolored throughout.

On the Second Floor it appears that original ceilings remain in place above the hung ceilings. The sections of the original ceilings that are visible are of beaded wood boards and are variously painted, stained or varnished [Figure 30]. The boards appear to be sound and the finish appears to need replacement.

The Entry Hall ceiling is plaster. It is approximately thirteen years old and sound. According to an insurance claim from 2000, the ceiling was originally plaster and beaded wood boards. (The original ceiling collapsed during renovations of the cupola above.) The Back Stair Hall has a plaster ceiling, needing only paint.

The main spaces on the First Floor appear to have been originally plastered. In the Meeting Room, the plaster appears to have been removed to accommodate the new structural work.

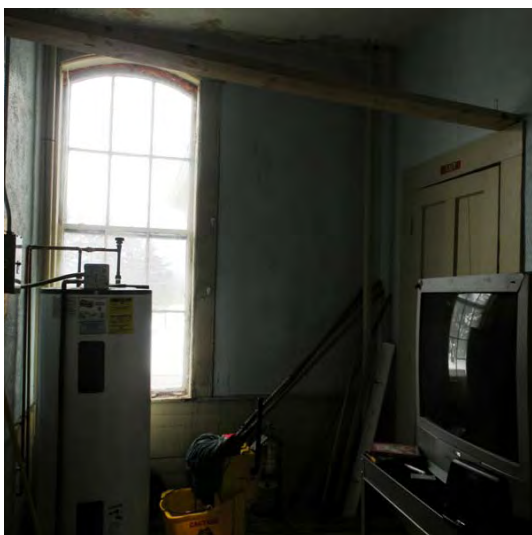
The First Floor Corridor has a panelized grid of painted wood slats and masonite or sheetrock infill panels secured directly to the structure above. There is severe water staining near the entrance door and various panels show signs of sagging. Paint needs to be replaced.

The First Floor Office (Library) has a painted pressed-tin ceiling above the false ceiling [Figure 31]. It appears to be in excellent condition.





**Figure 26- Original wainscot and blackboard in Office.**



**Figure 27- Typical original window and wainscot.**



**Figure 28- Back Stair: Original flooring and wall treatment.**



**Figure 29- Front Stair: Original wainscot and railings.**



**Figure 30- Painted wood paneling and ceiling beneath modern finishes.**



**Figure 31- Pressed tin ceiling behind dropped ceiling in First Floor Office.**

## **ADDENDUM B**

### DRAWINGS

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GENERAL NOTES

- 1. REPLACE ALL EXISTING ROOFS WITH NEW.
- 2. PROVIDE PAINT COLOR ANALYSIS AT WOOD SIDING, TRIM, CASINGS, WINDOWS AND DOORS.
- 3. REMOVE ALL PAINT AND REPAINT ALL WOOD SIDING, TRIM, CASINGS, WINDOWS AND DOORS.
- 4. REMOVE ALL PAINT ON EXPOSED BRICK AT FOUNDATION AND CHIMNEYS.
- 5. PROVIDE MORTAR ANALYSIS AT BRICK AND STONE.
- 6. RE-POINT BRICK AT FOUNDATION AS REQUIRED.
- 7. RE-SET AND RE-POINT CAPSTONES AT FOUNDATION AS REQUIRED.
- 8. SEE DOOR AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
- 9. PROVIDE BIRD SCREENING AT ALL LOUVERED OPENINGS IN CUPOLA.
- 10. NO REPAIR WORK IS REQUIRED AT THE CUPOLA UNLESS OTHERWISE NOTED.
- 11. REPAIR SPALLED BRICK AT FOUNDATION AS REQUIRED.
- 12. REFER TO DETAILED COST ESTIMATES FOR QUANTITIES.
- 13. REFER TO REPORT FOR DETAILED EXPLANATIONS.

KEY NOTES

- 01 REPAIR BRICK POINTING
- 02 NEW BRICK TO ROOF FLASHING
- 03 NEW WALL TO ROOF FLASHING
- 04 REBUILD SOFFIT, CORNICE AND ROOF
- 05 REBUILD SOFFIT AND CORNICE
- 06 REPAIR BRACKET
- 07 REPLACE POST
- 08 REPAIR WATER TABLE
- 09 REPAIR/REPLACE CORNER TRIM BOARD
- 10 RE-SET AND RE-POINT STEPS
- 11 NEW CORNICE ROOFING
- 12 REPAIR CENTER POST
- 13 REPLACE DAMAGED CLAPBOARDS
- 14 REPAIR CORNICE MOLDINGS
- 15 RE-POINT CAPSTONES
- 16 PROVIDE PROBE

SYMBOLS LEGEND

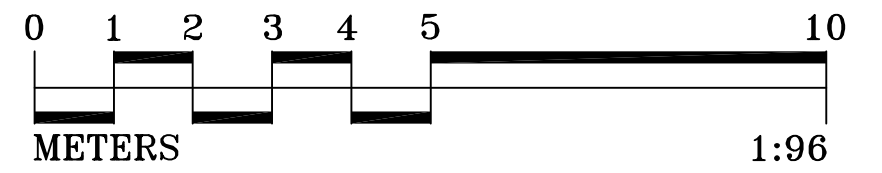
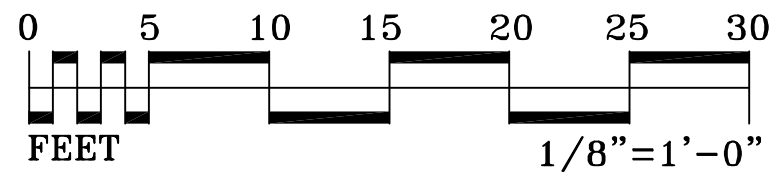
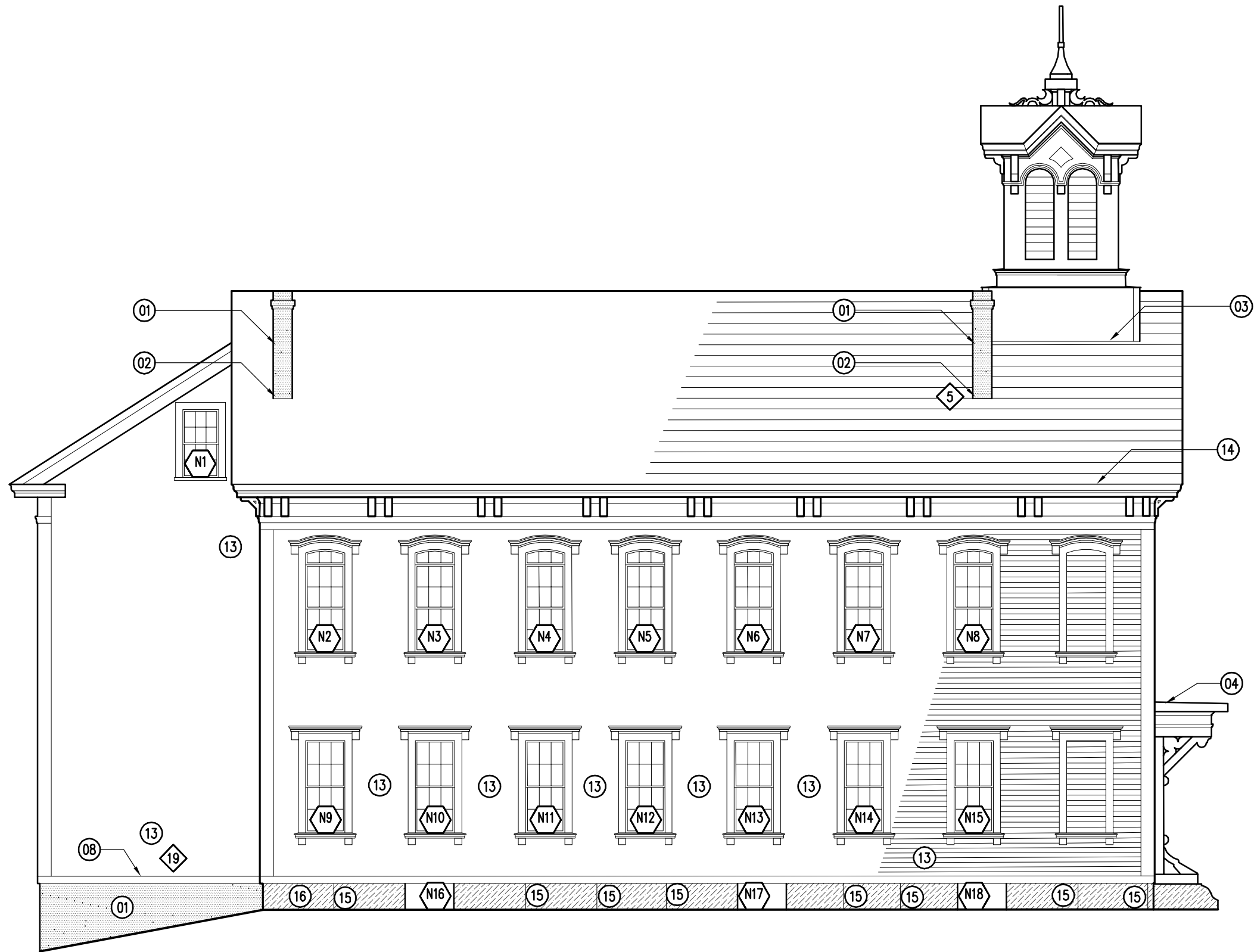
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- WINDOW NUMBER
- PHOTO KEY

MATERIALS LEGEND

- WOOD
- BRICK
- STONE

Project	NORTH HADLEY VILLAGE HALL	Number	NHVH-1
Description	DRAWING NOTES AND LEGENDS	Scale	AS NOTED
Issue/Rev	1	Date	MARCH 26, 2013

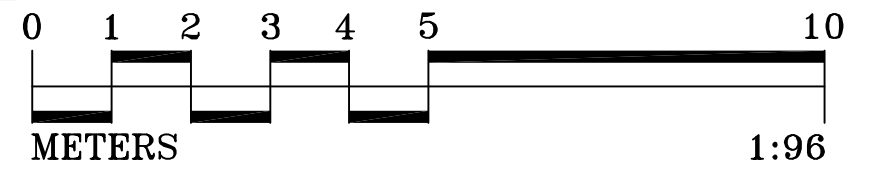
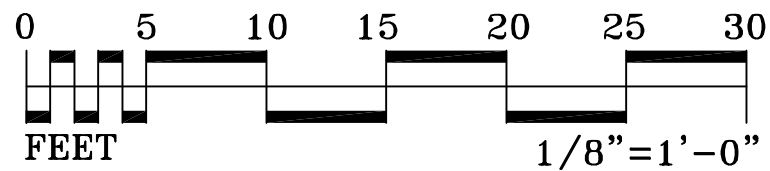
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Description	<b>NORTH FACADE CONDITIONS ASSESSMENT</b>
Issue/Rev	<b>1</b>

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Scale	<b>AS NOTED</b>
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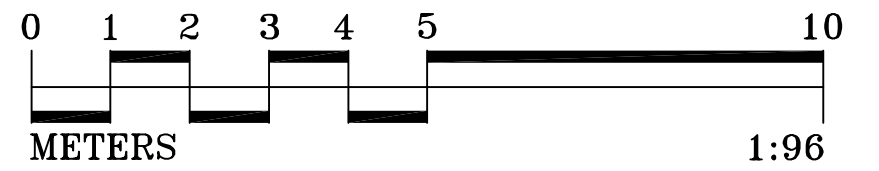
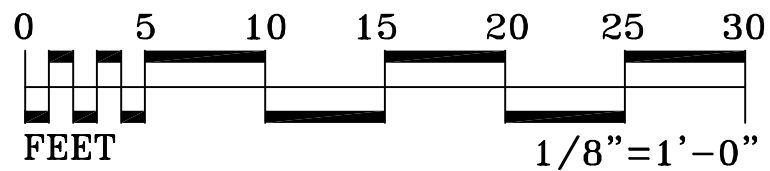
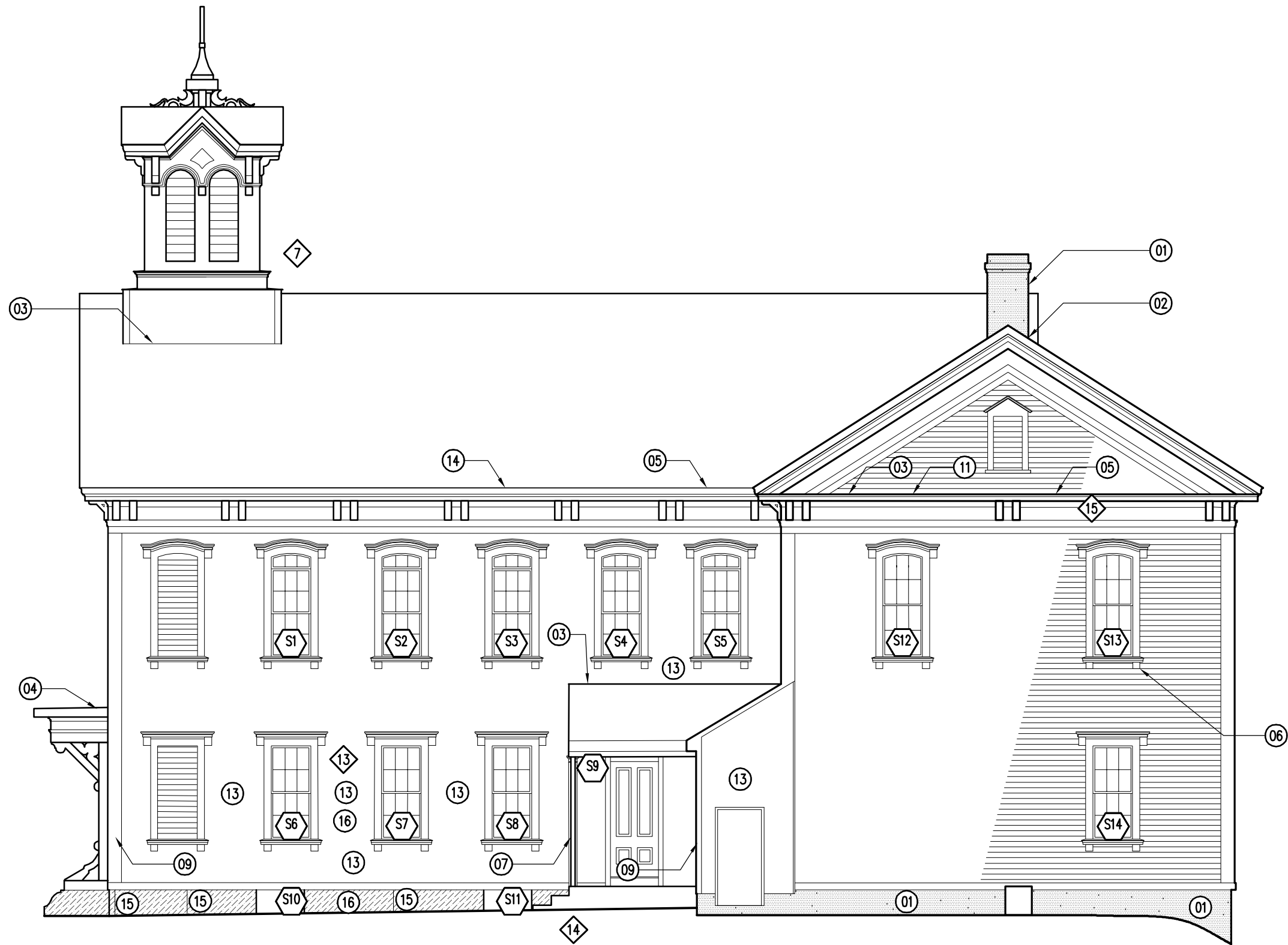
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Project	NORTH HADLEY VILLAGE HALL	
Description	EAST FACADE CONDITIONS ASSESSMENT	
Issue/Rev	1	

Number	NHVVH-3
Scale	AS NOTED
Date	MARCH 26, 2013

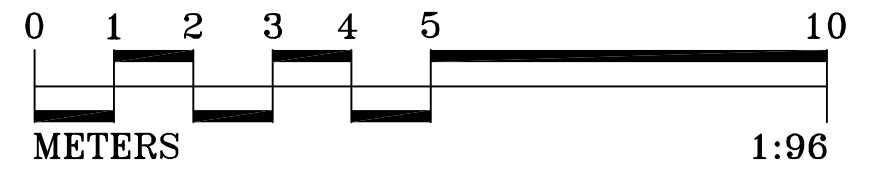
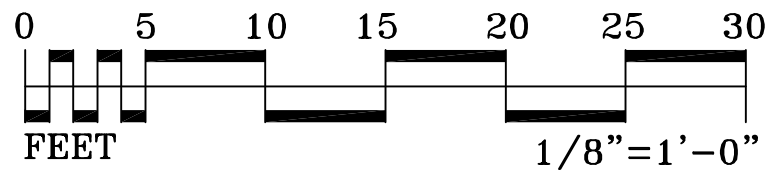
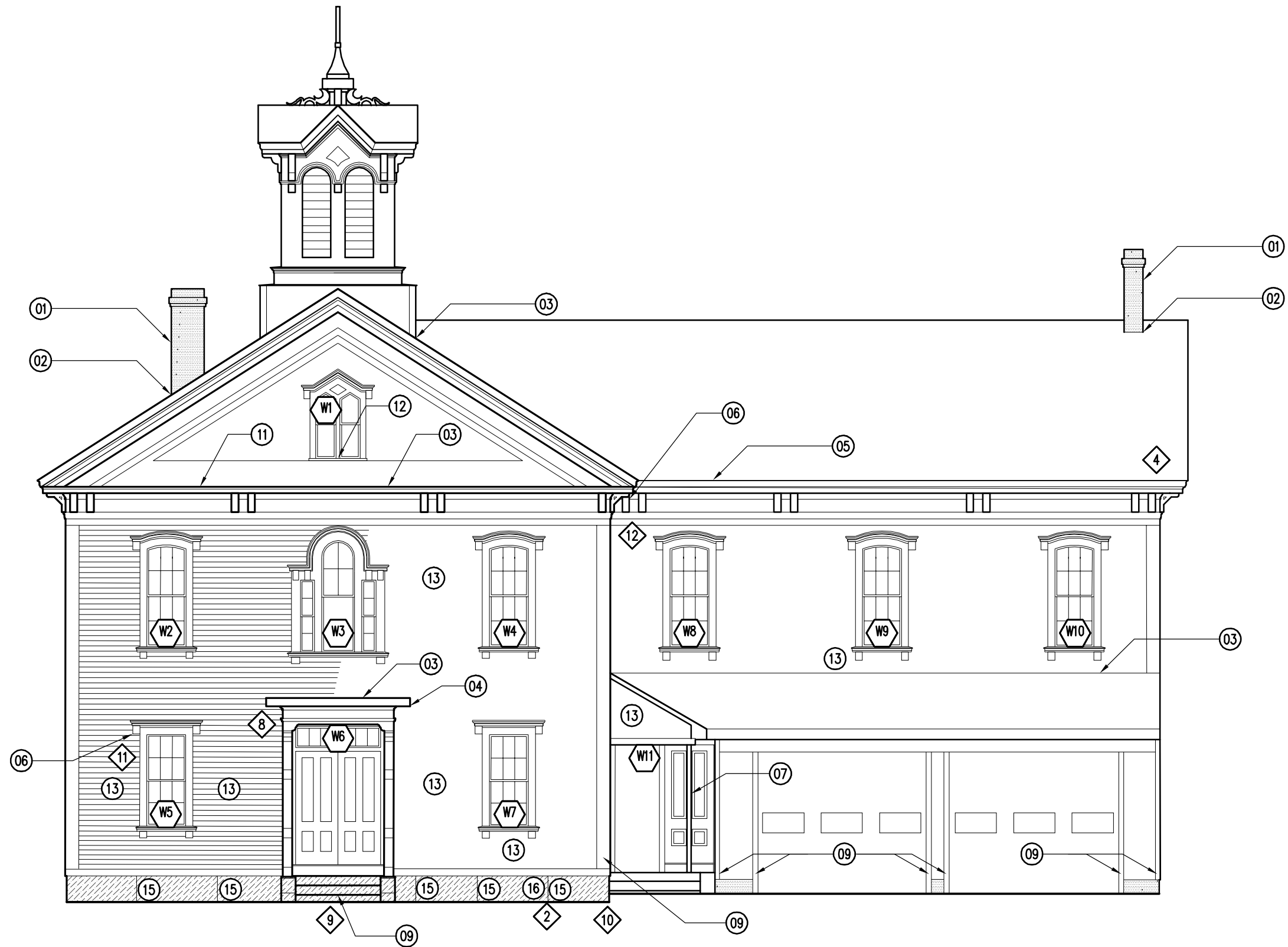
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Project	NORTH HADLEY VILLAGE HALL	
Description	SOUTH FACADE CONDITIONS ASSESSMENT	
Issue/Rev	1	

Number	NHVH-4
Scale	AS NOTED
Date	MARCH 26, 2013

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Project	NORTH HADLEY VILLAGE HALL
Description	WEST FACADE CONDITIONS ASSESSMENT
Issue/Rev	1

Number	NHVV-5
Scale	AS NOTED
Date	MARCH 26, 2013

## **ADDENDUM C**

### **SCHEDULES**

<b>DOOR SCHEDULE FOR: North Hadley Village Hall, 239 River Street, Hadley, MA</b>							
<b>DATE: 2/25/13</b>							
<b>TYPE</b>	<b>TOTAL</b>	<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>	<b>DIMENSIONS (w x ht x th)</b>	<b>HARDWARE</b>	<b>NOTES</b>
A	1	W1	Double doors 4 panels, applied moldings	West Façade Portico Entry	Left: 3" x 7'11" x 1½" Right: 2'11" x 7'11" x 1½"	Original cast iron hinges: 2" x 4½" Top closures + push bar	Mortise and Tenon Construction; middle and bottom rails have double mortises. Doors are in good condition. Recommend weather stripping.
B	1	W2	Single door 4 panel, applied moldings	West Façade Side Entry	3'4" x 7'10" x 2"		Mortise and Tenon Construction; middle and bottom rails have double mortises. Door is in good condition. Recommend weather stripping.
C	1	S3	Single door 4 panel, applied moldings	South Elevation Side Entry	3'3" x 7'9" x 2"	Original cast iron hinges: 1 ¾" x 4" Top closure + push bar	Mortise and Tenon Construction; middle and bottom rails have double mortises. Door is in good condition. Recommend weather stripping
D	1	N4	Sash Door with 9 lights, 2 panels	Firehouse, left entry	2'7" x 6'8" x n/a	n/a	Locked. Unable to enter. This door is inoperable per fireman.
E	1	S5	Metal Door	Firehouse, right entry	2'11" x 6'7" x 1 ½"		Main Entrance for fireman to enter garage. Good Condition
F	2	W6 W7	Metal roll up garage doors with 3 lights	West Façade, Firehouse	12' x 10'	n/a	Garage doors for fire truck entrance/exit. Excellent condition.
G	1	E8	Single sash door with 2 panels	Basement East elevation	2'11" x 5'6" x	n/a	All lights are missing in sash. Door is boarded from the outside.
H	1	E9	Plywood, board and batten	Basement East elevation	2'7" x 5'2"	n/a	Door is boarded from the outside.



**WINDOW TYPES FOR:** North Hadley Village Hall, 239 River Drive, Hadley Massachusetts

**DATE:** March 12, 2013

T Y P E	TOTAL	DESCRIPTION	OPERATION	SASH SIZE (W x H)		GLASS SIZE (W x H)		NOTES
				Top	Bottom	Top	Bottom	
A	10	6/6, top sash arched	Single Hung Rope/Pulley	2'10" x 3'7"	2'10" x 3'7"	10" x 20"	10" x 20"	
B	6	6/6	Single Hung Rope/Pulley	2'10" x 3"	2'10" x 3'3"	10" x 18"	10" x 18"	
C	12	3/6/6 Vinyl Replacement Window, arched top	Fixed panel + Double Hung, Tilt Out	2'5" x 2'10"	2'6" x 2'11"	Fixed Panel: 13" x 10"		Applied muntins over glass
D	13	6/6 Vinyl Replacement Window	Double Hung, Tilt Out	2'5" x 3'2"	2'6" x 3'2"			
E	1	6/6	Single Hung	2' 7" x 2'5"	2' 7" x 2'5"	9" x 13"	9" x 13"	
F	1	Tripartite	Fixed	1' x 2'7"	1' x 2'7"	8" x 14"	8" x 14"	4 over 1 window was originally 4 over 4.
		a. 2/2						
		b. 4/1	Single Hung Rope/Pulley	2'4" x 3'11"	2'4" x 3'11"	12" x 22"		
		c. 2/2	Fixed	1' x 2'7"	1' x 2'7"	8" x 14"	8" x 14"	
G	1	Twin	Single Hung	1'5" x 2'4"	1'5" x 2'6"	14" x 26"	14" x 28"	
		a. 1/1						
		b. 1/1	Single Hung	1'5" x 2'4"	1'5" x 2'6"	14" x 26"	14" x 28"	
H	1	7 light transom	Fixed	6' x 19"	n/a	9" x 15"	n/a	
I	2	3 light transom	Fixed	3' 4" x 14"	n/a	12" x 10"	n/a	
J	5	2 light, basement	Fixed	3'2" x 1'5"	n/a	16" x 10"	n/a	
K	4	Pair louvered openings in cupola	n/a	n/a				

# WINDOW SCHEDULE FOR: North Hadley Village Hall

## Page 1

### CONDITIONS ASSESSMENT

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash				Bottom Sash				NOTES	FRAME and ARCHITRAVE
				Frame	Broken Muntin	Broken Light	Glazing	Frame	Broken Muntin	Broken Light	Glazing		
W1a	Pediment	G	Repair	Fair	No	No	Poor	Fair	No	No	Poor		Reinstate/repair mullion
W1b	Pediment	G	Repair	Fair	no	No	Poor	Fair	1	No	Poor		
W2	2 <sup>nd</sup> Floor	A	Repair	Fair	1	no	Poor	Fair	no	No	Poor	Bottom Sash: exterior muntin, repair with Dutchman	
W3a	2 <sup>nd</sup> Floor	F	Repair	Fair	1	no	Poor	Fair	1	1	Poor		
W3b	2 <sup>nd</sup> Floor	F	Repair	Fair	1	no	Poor	Fair	All	See note	Poor	Top Sash: Broken muntin, repair with Dutchman. Bottom Sash: All muntins missing. Replace in kind and reinstate 4 lights.	
W3c	2 <sup>nd</sup> Floor	F	Repair	Fair	no	No	Poor	Fair	No	No	poor		
W4	2 <sup>nd</sup> Floor	A	Repair	Fair	1	No	Poor	Fair	no	No	Poor	Top Sash: Muntin Repair	
W5	1 <sup>st</sup> Floor	B	Repair	Fair	no	1	Poor	Fair	no	None	Poor	Remove exterior plexi glass panel. Top Sash: Replace light.	Repair left bracket under window hood
W6	1 <sup>st</sup> Floor. Door Transom	H	Repair	Fair	no	1	Poor	n/a	n/a	n/a	n/a	Replace broken light	
W7	1 <sup>st</sup> Floor	B	Repair	Fair	1	1	Poor	Fair	no	Painted	Poor	Top Sash: Repair muntin Bottom Sash: Remove black paint from glass or replace all 6 lights	
W8	2 <sup>nd</sup> Floor	A	Repair	Fair	No	No	Poor	Fair	No	No	Poor	Remove insulation at top for proper fit. Remove plexi glass interior panel.	
W9	2 <sup>nd</sup> Floor	A	Repair	Poor	No	No	Poor	Fair	No	No	Poor	Top sash: Bottom rail is bowed, replace rail.	
W10	2 <sup>nd</sup> Floor	A	Repair	Fair	No	No	Poor	Fair	No	No	Poor		
W11	1st Floor Side door transom	I	Repair	Fair	No	No	Poor	n/a	n/a	n/a	n/a		

# WINDOW SCHEDULE FOR: North Hadley Village Hall

## Page 2

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	TOP SASH (w x h)				BOTTOM SASH (w x h)				NOTES	FRAME AND ARCHITRAVE
				Frame	Broken Muntin	Broken Light	Glazing	Frame	Broken Muntin	Broken Light	Glazing		
S1 thru S5	2 <sup>nd</sup> Floor	C	Vinyl replacement windows										
S6 thru S8	1 <sup>st</sup> Floor	D	Vinyl replacement windows										Repair right bracket under window hood
S9	1 <sup>st</sup> Floor, Side door transom	I	Repair	Fair	No		Poor	n/a	no	n/a	n/a		
S10	Cellar	J	Rebuild	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Cellar window removed and boarded. Replace in kind.	Rebuild window frame
S11	Cellar	J	Rebuild	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Cellar window removed and boarded. Replace in kind.	Rebuild window frame
S12	2 <sup>nd</sup> Floor	A	Repair	Poor	Some repairs necessary	1	Poor	Poor	Some repairs necessary	1	Poor	Remove plastic sheeting Top Sash: Replace light Bottom Sash: Replace light	
S13	2 <sup>nd</sup> Floor	A	Repair	Fair	No	No	Poor	Fair	No	2	Poor	Bottom Sash: Repair broken lights	Repair exterior sill bracket
S14	1 <sup>st</sup> Floor Garage	B	Repair	Fair	No	No	Poor	Fair	No	No	Poor		
E1	2 <sup>nd</sup> Floor	A	Repair	Poor	No	1	Poor	Fair	No	No	Poor	Top Sash: Replace light. Remove insulation at top for proper fit	
E2	2 <sup>nd</sup> Floor	A	Repair	Poor	No	1	Poor	Poor	No	No	Poor	Remove plastic film. Top Sash: Replace light.	
E3	2 <sup>nd</sup> Floor	A	Repair	Poor	1	No	Poor	Fair	No	No	Poor	Top Sash: Missing muntin, repair in kind	
E4	1 <sup>st</sup> Floor Garage	B	Repair	Fair	No	no	Poor	Fair	No	1	Poor	Remove plastic sheeting Bottom Sash: Replace light	

**WINDOW SCHEDULE FOR: North Hadley Hall**  
**Page 3**

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	TOP SASH (w x h)				BOTTOM SASH (w x h)				NOTES	FRAME AND ARCHITRAVE
				Frame	Broken Muntin	Broken Light	Glazing	Frame	Broken Muntin	Broken Light	Glazing		
E5	1 <sup>st</sup> Floor Garage	B	Repair	Poor	3	No	Poor	Poor	1	No	Poor	Remove plastic sheeting; Repair interior/exterior muntins on both sash using Dutchman repair	
E6	1 <sup>st</sup> Floor	B	Repair	Fair	No	2	Poor	Fair	No	No	Poor	Top Sash: Replace lights	
E7 thru E9	1 <sup>st</sup> Floor Office	D	Vinyl Replacement Windows									E32 shows water stain on inside head casing.	E-31: Missing window hood, replace in kind.
N1	Attic	E	Repair	Poor	1	no	Poor	Poor	No	no	Poor	Broken muntins in top sash; divided lights replaced with 1 larger light; silicone caulking holding 2 lights in place	
N2 thru N8	2 <sup>nd</sup> Floor	C	Vinyl Replacement Windows										
N9 thru N15	1 <sup>st</sup> Floor	D	Vinyl Replacement Windows									N43 shows water stain on inside head casing	
N16	Cellar	J	Replace	Very Poor	No	2	Very Poor	n/a	n/a	n/a	n/a	Covered with board on exterior. Serious deterioration. Replace in kind.	Frame deteriorated. Rebuild frame
N17	Cellar	J	Replace	Very Poor	No	No	Very Poor	n/a	n/a	n/a	n/a	Only basement window still in situ and not covered by board. Serious deterioration. Replace in kind.	Frame deteriorated. Rebuild frame
N18	Cellar	J	Replace	Very Poor	No	No	Very Poor	n/a	n/a	n/a	n/a	Covered with board on exterior. Interior stuffed with insulation. Serious deterioration. Replace in kind.	Frame deteriorated. Rebuild frame.

**ADDENDUM D**

**ROOF REPORT**

# Aerial Measurement Report

Prepared by Olde Mohawk Masonry & Historic Restoration



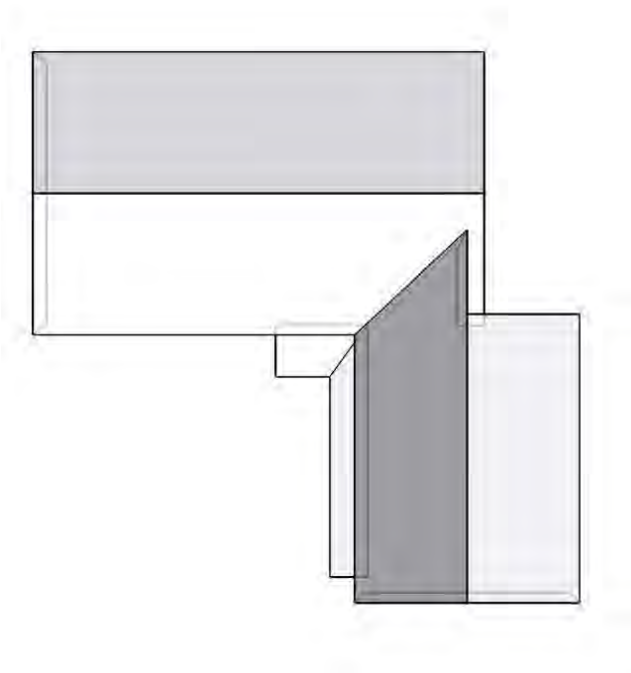
239 River Dr, Hadley, MA 01035-9638



Olde Mohawk Masonry & Historic Restoration  
PO Box 9268  
Niskayuna, NY 12309

Ward Hamilton  
tel. 877.622.8973  
email: [OldeMohawkInc@gmail.com](mailto:OldeMohawkInc@gmail.com)  
[OldeMohawk.com](http://OldeMohawk.com)

239 River Dr, Hadley, MA 01035-9638



In this 3D model, facets appear as semi-transparent to reveal overhangs.

Report Details	Roof Details	Report Contents
Report:5668488 Claim: North Hadley Village Hall	Total Roof Area =5,370 sq ft Total Roof Facets =8 Predominant Pitch =8/12 Number of Stories >1 Total Ridges/Hips =109 ft Total Valleys =35 ft Total Rakes =173 ft Total Eaves =321 ft Total Penetrations =7 Total Penetrations Perimeter = 127 ft Total Penetrations Area = 204 sq ft	Images. ....2 Length Diagram.....5 Pitch Diagram.....6 Area Diagram. ....7 Notes Diagram .....8 Penetrations Diagram .....9 Report Summary.....10 Additional Property Information ....12

Contact: Ward Hamilton  
Company: Olde Mohawk Masonry & Historic Restoration  
Address: 1174 Van Antwerp Road  
Niskayuna, NY 12309  
Phone: 781-686-6999

Measurements provided by [www.eagleview.com](http://www.eagleview.com)



Certified Accurate  
[www.eagleview.com/Guarantee.aspx](http://www.eagleview.com/Guarantee.aspx)

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## Images

The following aerial images show different angles of this structure for your reference.

Top View



Report: 5668488  
Claim: North Hadley  
Village Hall

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North Side



South Side



Report: 5668488  
Claim: North Hadley  
Village Hall

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East Side



West Side

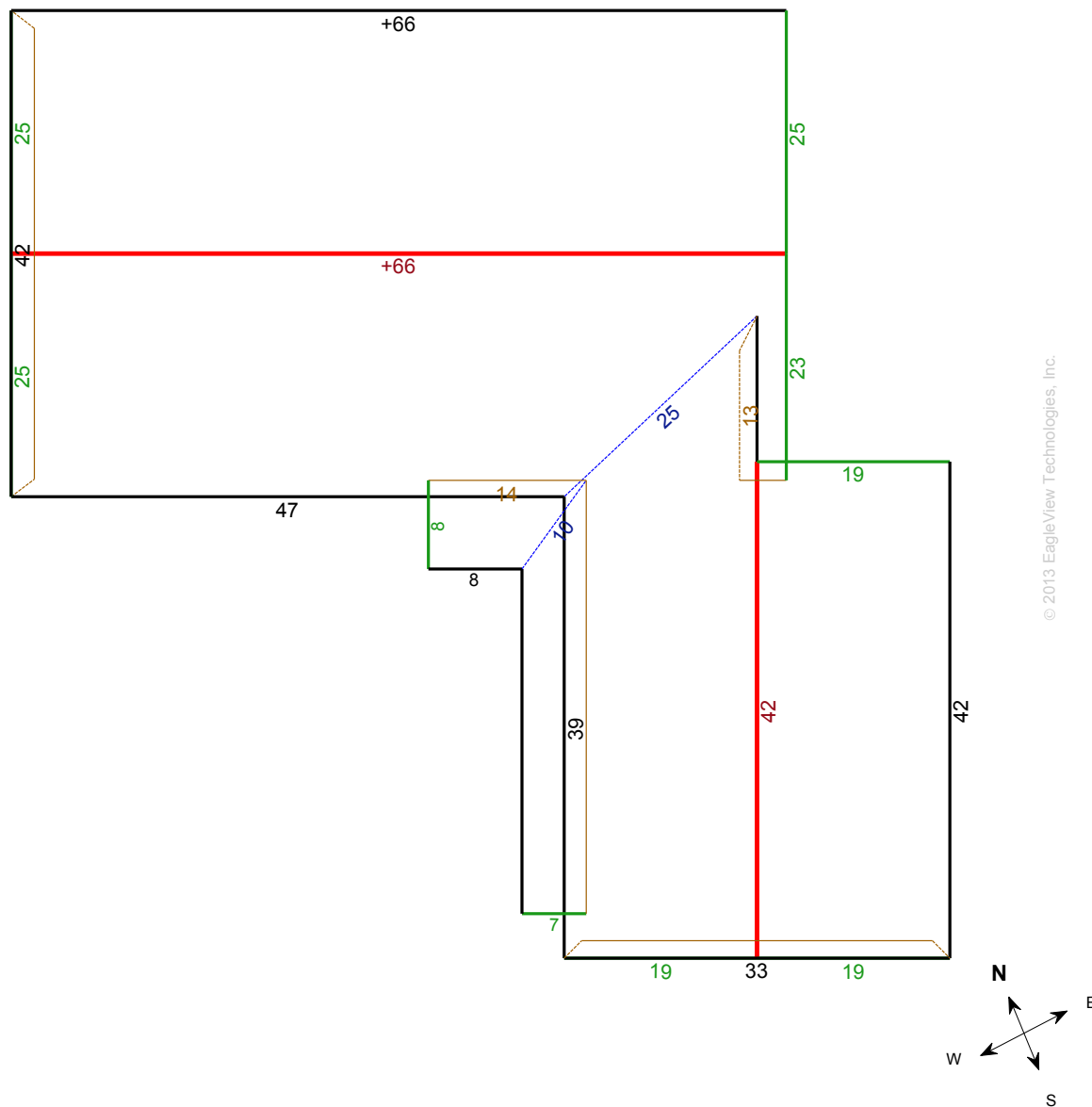


Report: 5668488  
Claim: North Hadley  
Village Hall

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**Length Diagram**

Total Line Lengths:

**Ridges = 109 ft****Hips = 0 ft****Valleys = 35 ft****Rakes = 173 ft****Eaves = 321 ft****Flashing = 124 ft****Step flashing = 27 ft****Parapets = 0 ft**

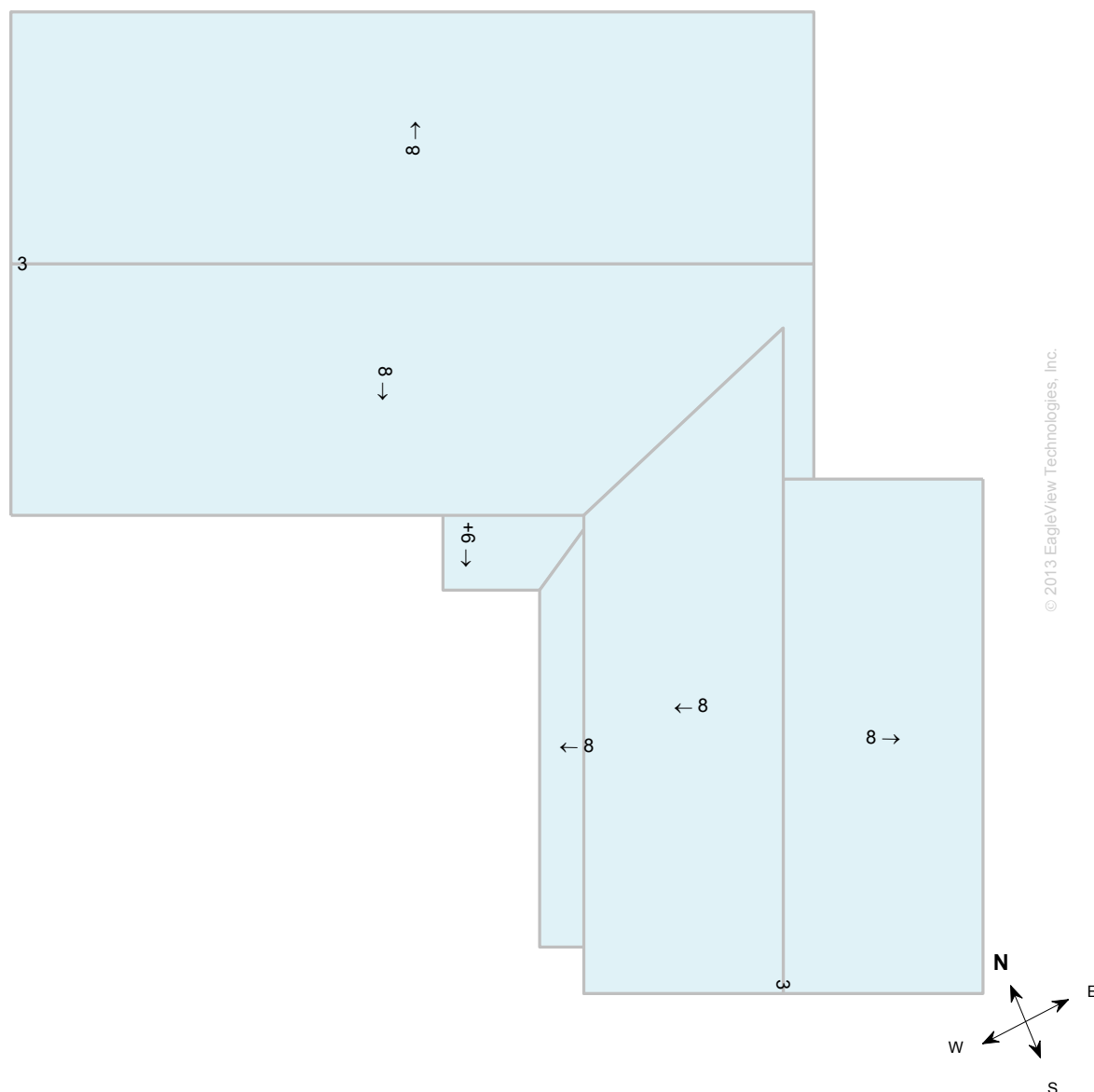
**Note:** This diagram contains segment lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).




Report: 5668488  
Claim: North Hadley  
Village Hall

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Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 8/12.



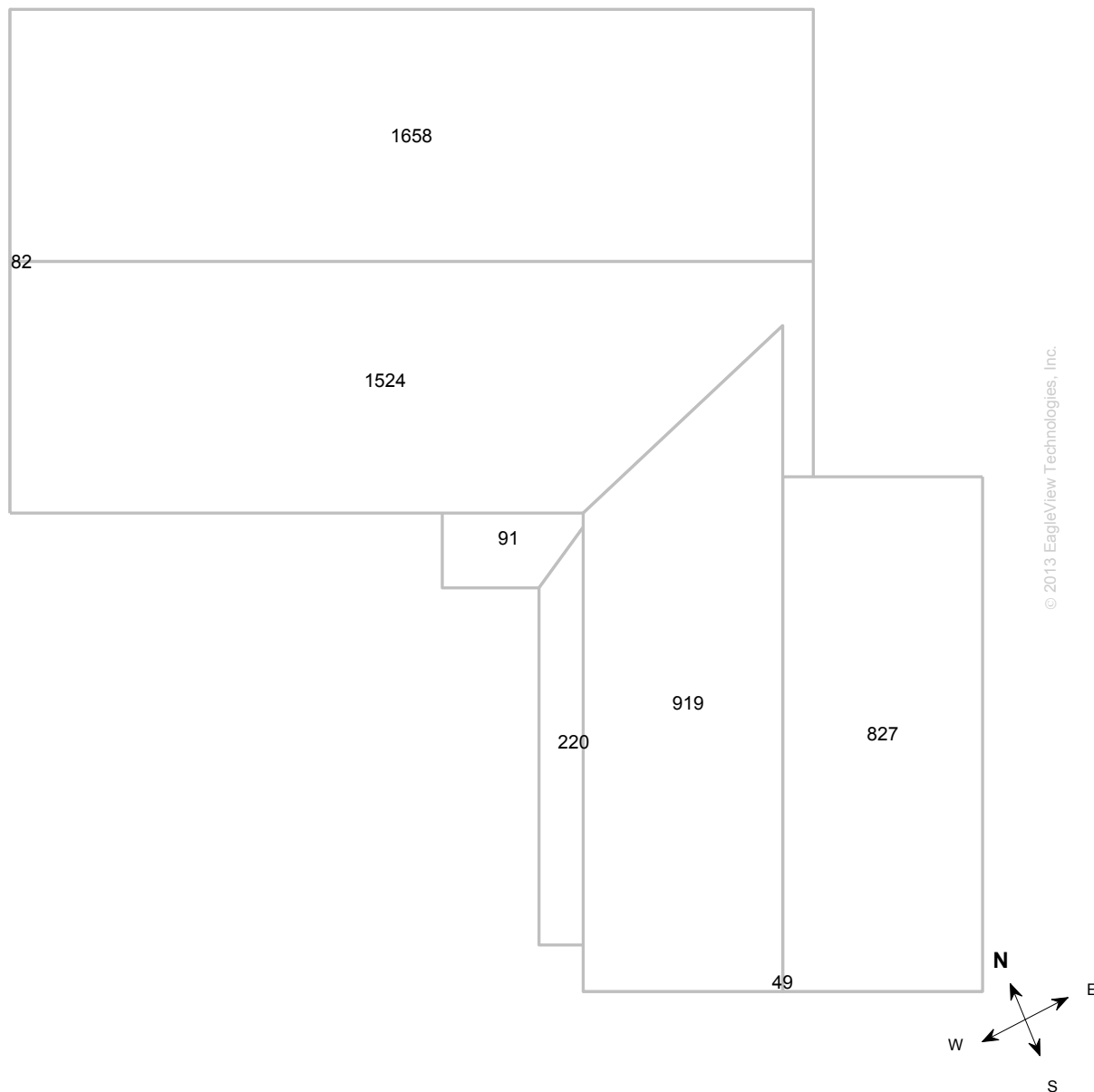
 Report: 5668488  
Claim: North Hadley  
Village Hall

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## Area Diagram

Total Area = 5,370 sq ft, with 8 facets.



**Note:** This diagram shows the square feet of each roof facet (rounded to the nearest foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).

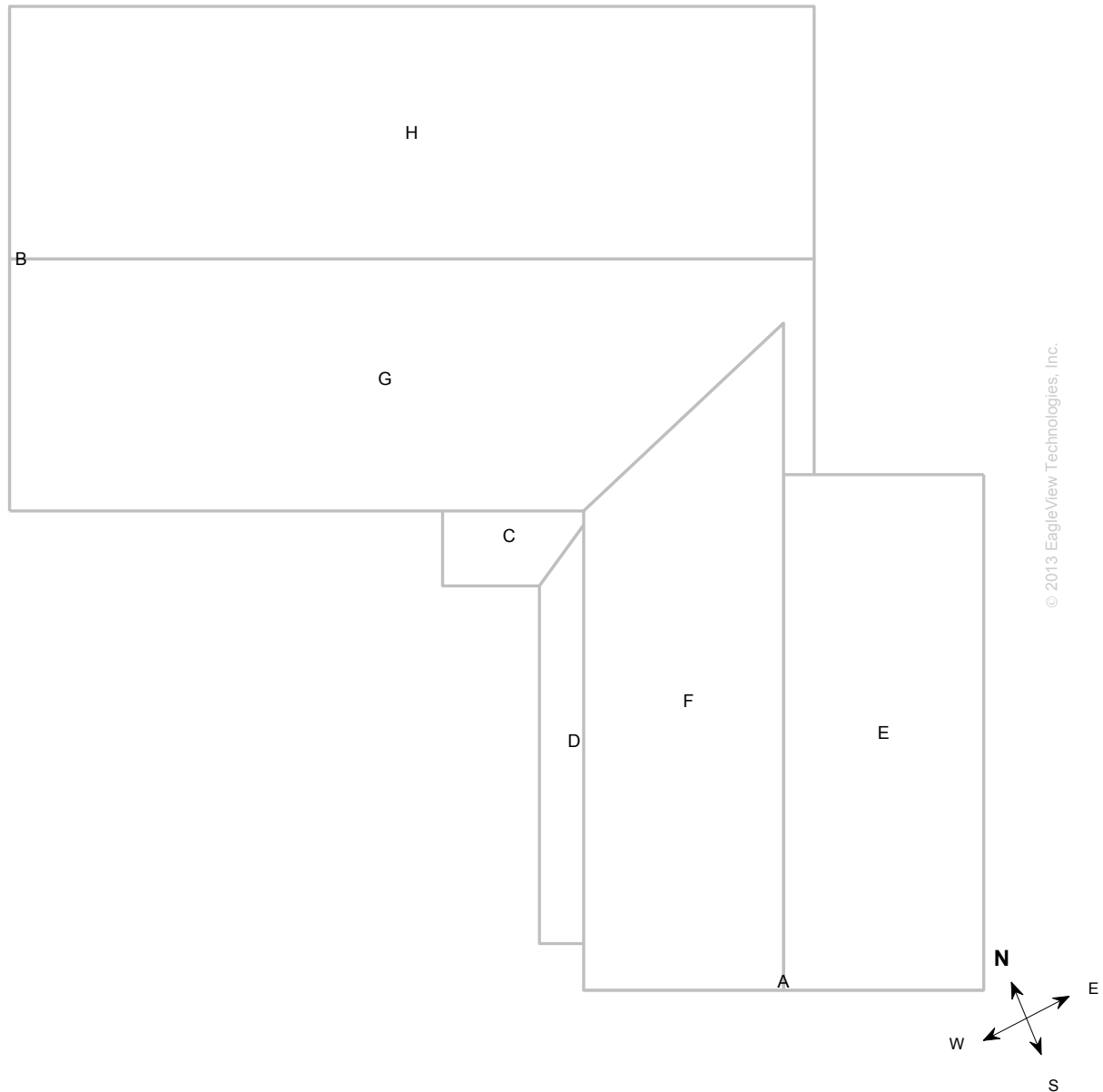


Report: 5668488  
Claim: North Hadley  
Village Hall

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## Notes Diagram

Roof facets are labeled from smallest to largest (A to Z) for easy reference.



Report: 5668488  
Claim: North Hadley  
Village Hall

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## Penetrations Notes Diagram

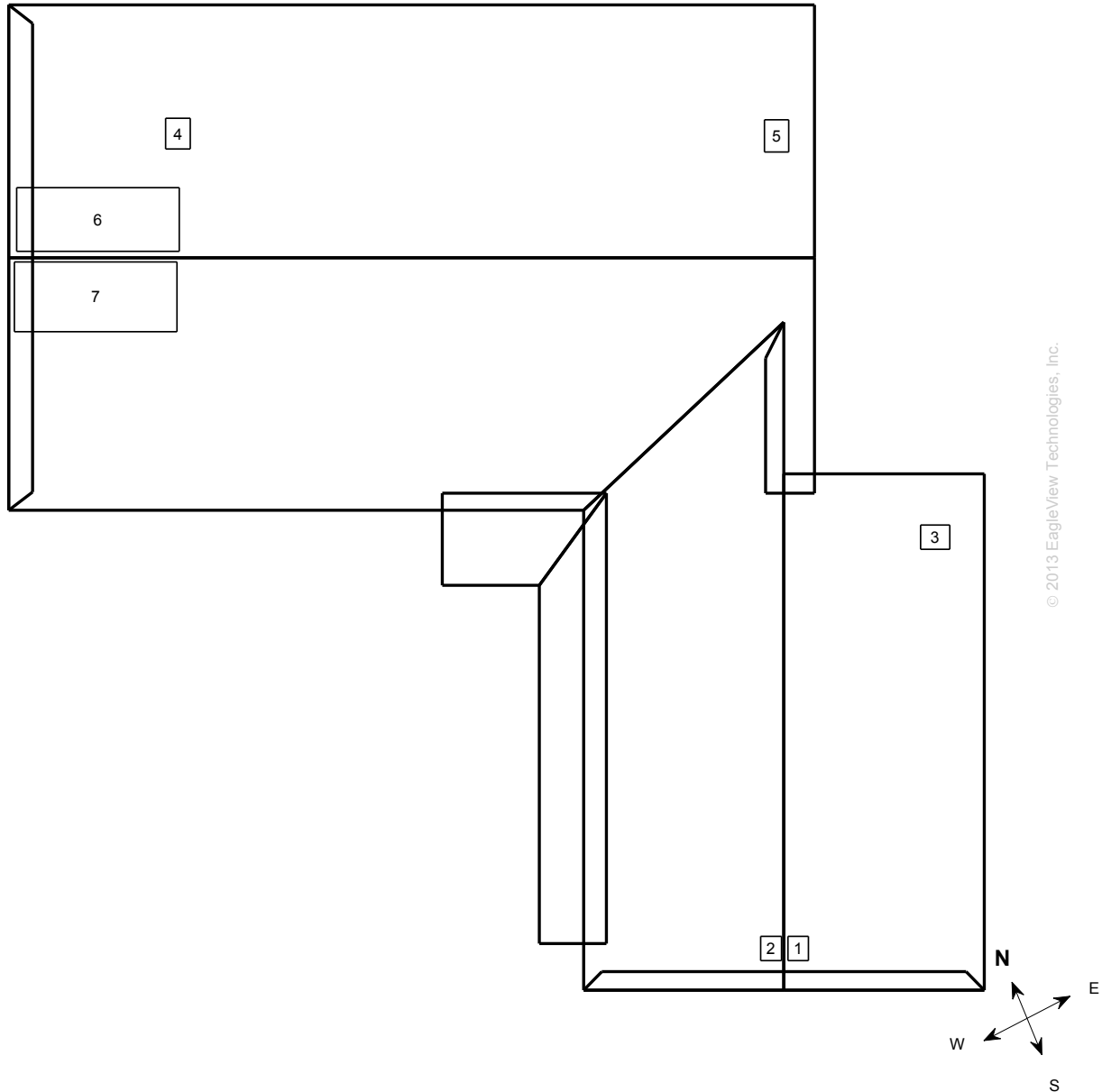
Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 7

Total Penetrations Perimeter = 127 ft

Total Penetrations Area = 204 sq ft

Total Roof Area Less Penetrations = 5,167 sq ft



Report: 5668488  
Claim: North  
Hadley Village

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## Report Summary

Below is a measurement summary using the values presented in this report.

### Areas per Pitch

Roof Pitches	3/12	6/12	8/12
Area (sq ft)	131.2	90.7	5148.2
% of Roof	2.4%	1.7%	95.9%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

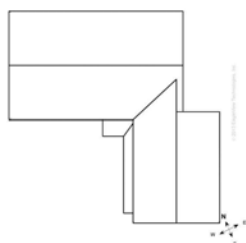
### Waste Calculation Table

Waste %	0%	10%	12%	15%	17%	20%	22%
Area (sq ft)	5,370	5,908	6,016	6,177	6,284	6,445	6,553
Squares	53.7	59.1	60.2	61.8	62.8	64.5	65.5

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The waste factor is subject to the complexity of the roof, individual roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Ridge, hip, valley, and starter lengths may require additional material.

Penetrations	1-2	3	4	5	6	7				
Area (sq ft)	4	5.6	6.1	6.3	84.6	92.6				
Perimeter (ft)	8	9.6	10.2	10.4	39.4	40.6				

Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.



Total Roof Facets = 8  
Total Penetrations = 7

### Lengths, Areas and Pitches

Ridges = 109 ft (2 Ridges)  
Hips = 0 ft (0 Hips)  
Valleys = 35 ft (2 Valleys)  
Rakes\* = 173 ft (9 Rakes)  
Eaves/Starter\*\* = 321 ft (9 Eaves)  
Drip Edge (Eaves + Rakes) = 494 ft (18 Lengths)  
Parapet Walls = 0 (0 Lengths)  
Flashing = 124 ft (5 Lengths)  
Step flashing = 27 ft (6 Lengths)  
Total Area = 5,371 sq ft  
Total Penetrations Area = 204 sq ft  
Total Roof Area Less Penetrations = 5,167 sq ft  
Total Penetrations Perimeter = 127 ft  
Predominant Pitch = 8/12

### Property Location

Longitude = -72.5810237  
Latitude = 42.3878620

### Notes

This was ordered as a commercial property. It was reported to be single structure. There were no changes to the structure in the past four years.

\* Rakes are defined as roof edges that are sloped (not level).

\*\* Eaves are defined as roof edges that are not sloped and level.



Report: 5668488  
Claim: North Hadley  
Village Hall

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RUSSELL SCHOOL

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- Building Description
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- Causes of Deterioration
- Specific Problems Description
- Recommendations
- Prioritization of Tasks
- Estimate of Costs
- References

### Addenda

- Addendum A – Interior Visual Survey
- Addendum B – Drawings
- Addendum C – Window Schedule
- Addendum D – Roof Report

## EXECUTIVE SUMMARY

Russell School is generally in sound condition. Because of an overall lack of maintenance, exterior issues have evolved into costly work rather than routine maintenance. The building was constructed with materials that are of the highest quality and durability and are environmentally responsible—slate roofing and masonry. Estimate of repair costs, broken down by system, follow:

<i>Foundation</i>	\$112,980
<i>Walls</i>	\$57,024
<i>Roofing</i>	\$97,921
<i>Carpentry</i>	\$92,640
<i>Windows</i>	\$68,818
<i>Trim</i>	\$62,220
<i>Chimney</i>	\$17,568
<i>Stairways and Porches</i>	\$144,420
<i>Contingency</i>	\$65,358
<i>Total:</i>	<b><u>\$718,950</u></b>

The recommendations of this preservation plan are prioritized according to criticality. While the roof and flashing assemblies generally top such lists, there were no active leaks detected in the attic of Russell School. Further, slate repairs were performed in late 2012. The greatest repair concerns are centered on the potential of movement at the corners of the foundation and the wide-reaching effects of poor roof and site drainage. The repair recommendations are categorized in the following order:

### IMMEDIATE (WITHIN THE NEXT 12 MONTHS)

- Foundation – Installation of tell-tale gauges
- Windows – Replace/repair storm windows, as needed
- Porch – Install temporary supports at West Porch

### INTERMEDIATE (IMPLEMENTATION IN YEARS 1 TO 3)

- Roofing – Installation of 20 oz/sq’ “red” copper gutters
- Roofing – Installation of 20 oz/sq’ “red” copper leaders
- Stairway – Rebuild eastern porch stairs
- Stairway – Rebuild northern porch stairs
- Foundation – Repointing work
- Roofing – Replacement of cricket flashing assembly
- Roofing – Replace stepped side-wall flashing details
- Foundation – Installation of epoxy (or low shrinkage grout)
- Chimney – Rebuild top of chimney and repoint remainder
- Chimney – Install new copper sheet metal cap

### MID-RANGE (IMPLEMENTATION IN YEARS 4 TO 6)

- Stairway – Rebuild western porch stairs
- Carpentry – Wood repairs to east and west porch columns, ceilings and architraves, cornice, panels, trim, and other wood members, as needed
- Walls – Repointing work

## LONG TERM (IMPLEMENTATION IN YEARS 7 TO 10)

Roofing – Replace rolled ridge on hips

Windows – Restore original sash/window trim, as identified in the conditions assessment of the window schedule

Trim – Scrape, prime and paint all wooden elements

Stairway – Fire escape, prep, prime and paint

Foundation – Masonry cleaning, application of poultice

## INTRODUCTION

The Russell School was designed by Boston architect Charles E. Parks in the Romanesque style and constructed in 1894. The school was built on the site of the Edward Stebbins homestead and served as the 4th home of Hopkins Academy until 1909. It was renamed Russell School and served as an elementary school until 1996. Since that time the building has been leased to various charter schools.

The following report evaluates the exterior conditions of the Russell School as per the Hadley Historic Commissions request. In accordance with the Secretary of the Interior's Standards for Treatment of Historical Properties, an extensive exterior survey of the structure is focused on current material conditions. All surveys were hands on, visual assessments; no invasive probes were used. The interior of the structure was also surveyed from a historic preservation perspective. A record of observations follows this report. State Building Code and MAAB/ADA accessibility compliance are not in the scope of this report.

The report is organized by systems. Overall conditions and a discussion of materials usage is followed by an examination of general issues and specific system failures. Areas of deterioration and their causes are examined and recommendations to mitigate or eliminate further failures and degradation make up the bulk of this part of the report. The various tasks within each system are broken out and categorized according to priority. Specific repair recommendations are provided to address the issues identified in a historically appropriate manner. An engineered estimate of costs to perform the preservation work is provided for budget purposes.

Annotated site photographs accompany this report. They document the existing conditions and illustrate the state of the various systems. The photos are keyed to detailed drawings of the Russell Schools elevations. Together they provide a graphic presentation of the qualitative preservation needs of the building. *Table 1* provides the quantitative preservation needs of the building.

## BUILDING DESCRIPTION

Russell School is a large, rectangular masonry structure, two stories high, with full basement and attic. The building faces north to Russell Street and is bounded on the east by Middle Street. It is located in and is an important part of the Hadley Center Historic District (NRHP reference no. 1977-000185.) The building is constructed with a stone foundation and brick walls. It is crowned with a bold, bracketed wood entablature and a hipped slate roof. Dimensions of the

structure are 58'x65'x48' high. The main design feature on the principal, North Façade is a 16'x16'x54' high bell tower that projects forward of the main building. The belfry was once an open arcade that housed a large cast bronze school bell and is now boarded up. The base of the tower is an open arcade that protects one of the three entrances. The tower and main roofs are hipped; the main roof has a large, flat section in the center.

There are two one story entry porches to the east and west. Ionic columns support flat roofs above a classic architrave. The building facades are dominated by large two story arch top punched openings with decorative masonry archivols and painted wood in-fill windows. The building was originally designed and built as a school and continues with this use today.

## **CONSTRUCTION**

Russell School appears to be a masonry bearing wall structure composed of stone and brick. The floors and roof are framed in wood. Interior bearing walls, supported by cast iron columns in the basement, are used to support the long structural spans of the floors above. The fenestration is principally supported by semi-circular and flat masonry ("jack") arches. Wood windows are used as infill of the masonry openings. The belfry has independent steel and cast iron frame to support the swinging load of the bell- this isolates the dynamic force from the brittle masonry structure.

## **MATERIALS USAGE**

Stone and brick are the dominant materials that comprise Russell School. The first story is constructed of battered, quarry faced gneiss laid in an ashlar bond pattern. The same stone appears to have been used on all three buildings in this report. Historical research indicates that this stone may have been quarried in nearby Monson or Pelham. Masonry walls of red sand struck brick laid in common bond rise from the first story window sill level to the second story cornice. The mortar is Portland cement-based and tinted red to match the brick. The cornice is wood as are the window frames, trim, porch columns, porticoes, doors, door frames and architraves. All of the wood is painted white. Entry doors have been replaced with commercial style aluminum with glass lights. The pitched portion of the hipped roof is Vermont sea green slate, the flat portion is modified bitumen. Flashing materials are copper sheet metal.

## **PROBLEMS OF REPAIR**

The workmanship and materials of Russell School are of the highest quality. They have weathered well over the previous 120 years. The materials used in Russell School are showing the types of deterioration that can be expected of stone, brick and wood located in the Northeast. At the time of this conditions assessment, the deterioration has accelerating past what routine maintenance could have prevented. The problems of repair can be categorized generally as accelerated deterioration due to water infiltration.

Poor drainage has contributed to the deterioration of the mortar joints of the brick and stone masonry surfaces and may be causing heaving at or below grade. The stone and brick joints have lost mortar which is allowing excess moisture to penetrate the materials. In addition to accelerating the deterioration of the mortar, this is beginning to affect the integrity of the wall. Open joints and cracks are prevalent in the stone foundation. The freeze/thaw cycle of water trapped inside the wall appears to be the cause of most of the cracking of stone joints, dislodgement of stone units and spalling of brick. Now begun, the condition will worsen rapidly.

With the exception of the porch columns and basement windows, the wood used throughout the building is generally sound but has begun to deteriorate to the point of replacement. This is due to the deterioration (flaking and peeling) and of the protective paint film that is intended to keep moisture out of the wood.

The slate roofing is in sound condition but the flashings have reached the end of their useful service life. Copper, used in a roofing application, has a service life of 80 to 100 years. The cricket roof detail behind the north tower and sidewall flashings have failed and been covered with tar and roofing mastic. The rolled ridge of the hips has oxidized and pitted and have reached the end of their service life.

The East, West and North Facades are each accessed by stone stairways and porches. Several stair treads have cracked and spalled from rust-jacking caused by rusted railing mounts [figure 1]. Each stairway has heaved and the brick masonry support structure beneath has deteriorated to the point of failure.

## **CAUSES OF DETERIORATION**

The causes of deterioration at Russell School are a lack of maintenance, poor site drainage and poor roof drainage.

Traditional masonry construction relies on mortar to unify individual units such as brick into a structural whole. The mortar acts as a sacrificial component of the construction by allowing moisture from rain to drain through it and out of the brick. Over time, the mortar joints need routine maintenance in the form of re-pointing to continue to keep the building envelope water-tight. Paint on wood acts in a similar way in that it protects the wood from moisture and deterioration from UV radiation. The paint film requires routine touch-up to protect the underlying wood.

The roof of Russell School is large and it directs concentrated amounts of water against the porch roofs, facades and building foundation. This condition accelerates the deterioration of the mortar, brick, stone, wood and paint. Additionally, it is undermining the sub-structure and grade at the steps and appears to be the cause of the deterioration of the wood columns supporting the porch roofs.

The hardscape around the building in the form of asphalt and concrete paving is not draining the roof run-off away from the building and is causing water to pond near the foundation. It also forces the run-off to splash back against the stone and basement windows causing delamination of the stone, mortar loss, biological growth and deteriorated windows [figure 2].

As a result of poor drainage, frost heaving and the compounded action of freeze/thaw cycles within the building materials are the primary causes of deterioration of Russell School's building fabric.

## **SPECIFIC PROBLEMS DESCRIPTION**

The condition of the quarry faced gneiss that compromises the foundation is very sound with a few localized, exceptions. At these locations, steps need to be replaced and some portions of walls rebuilt [figures 3, 4, 5]. Mortar joints have mostly worn evenly and need to be re-pointed [figure 6, 7]. At the corners of the building, continuous cracks that run through the stone units in places suggest the possibility of movement [figure 8].

The walls of the Russell School above the stone belt course are composed of a red brick laid in common bond. The mortar joints have worn relatively evenly and sections where deterioration has occurred such as brick spalling are limited but spread over a variety of locations [figure 9].

The sloped roofing is covered in a Vermont semi-weathering, gray-green ("Sea Green") slate [figure 10]. Aside from some non-matching repair slates which are aesthetically displeasing, the slate on the roof is in sound condition with minor exceptions [figure 11].

Two of the porches have wood columns and architraves that support the roof and are in very poor condition [figures 12, 13, 14]. Columns are missing and askew. Moldings at the base and capital have rotted and are displaced.

The hips of the roof are clad in a copper, rolled ridge flashing that has outlived its service life. Where the slate roof abuts the brick masonry sidewalls of the tower the step-flashing assembly is original to the construction of the building [figure 15]. At the cricket detail behind the tower [figure 16] the sheet metal cladding has outlived its service life. Modified bitumen covers the roof at the top of the structure. A roof scuttle (hatch) [figure 17] provides access from the attic. The roof is hip-framed with 2x10 rafters set on a double sill plate atop the brick knee wall [figure 18]. The rafters are spaced irregularly 16" and 24" on center and sheathed with 1" tongue and groove wood planks. No deflection was detected in the structural framework of the roof. The chimney stack needs partial rebuilding, total repointing, and a new sheet metal cap [figure 19]. The chimney protrusion is finished with a termination bar. The east and west side porch roofs are covered with an EPDM (ethylene propylene diene monomer) membrane and detailed at the end wall with a termination bar.

The fenestration of Russell School is largely comprised of the original sash with later-added, aluminum storm windows. Broken glazings in the sash and glass in the storm windows are found at limited locations. The condition of each, individual window has been assessed and recommendations are contained in the *Window Schedule, ADDENDUM C*. The original doorways on the North, East and West Elevations have been replaced with commercial, aluminum-framed doors [figure 20]. The multi-light, wooden transoms are still in place. At grade, on the west side, a door has been replaced with an inappropriate, residential-grade door. On the southern elevation, at the top of the fire escape, an original wooden, four-paneled door provides an egress point from the second floor. The wood plates of the cornice and panels are in sound condition. The crown profile and dentils of the cornice need some limited repair and



Figure 1. Several stair treads have been destroyed by rusted railing mounts that were not maintained and caused the stone to crack. Each stairway has heaved, treads have cracked and failed because moisture was allowed in and, over decades, the brick masonry support structure beneath deteriorated and failed.



Figure 2. Algae and other biological growth is evidence of roof and site drainage issues, particularly on the northern side of the building. The introduction of gutters will alleviate this issue. The growth can be safely cleaned with any number of commercially-available, anti-microbial solutions.



Figure 3. The stairs and abutting walls of the eastern porch. Failure to maintain mortar joints, particularly with cap stones, has allowed moisture to infiltrate. The infill freezes, expands, and forces facing stones to bulge outward.





Figure 4. Sections of the eastern porch have been repointed with an inappropriate material by an unskilled person or persons. Improper installation and later maintenance of the railing system has allowed the wrought iron to rust and expand. This has caused wholesale destruction of the stair treads.



Figure 5. The stairs of the northern porch have failed. Beneath the steps are stringers, typically made of brick. When the joints between the treads are not kept pointed or closed with appropriate adhesive mastic, water gets inside. The bricks supports are destroyed and, over the years, the less-supported treads sag. The stone steps crack and become askew.



Figure 6. A failure to keep cap stones pointed or closed off with appropriate adhesive mastic will allow water inside. That water, during freeze-thaw cycles, will destroy mortar joints and, ultimately, the structural integrity of the wall will be compromised.





Figure 7. Water infiltration, detailed in the preceding photo, has compromised the mortar joints on this side of the porch. Without proper attention, in short time this side will start to bulge out and rebuilding will be necessary. Note the exposed portions of the once sub-grade rubble foundation wall. Erosion and/or settlement has presumably lowered grade since the date of original construction.



Figure 8. Extensive cracking is visible through the mortar joints at the southeast corner of the building (typ.) The installation and monitoring of tell-tales will help determine if movement is occurring or not. Cellar window. (\$15b) is missing storm inserts. Two panes of glass are broken and “boarded closed.” The missing storms are allowing precipitation to rot the sill and window.



Figure 9. Detail of the deterioration of the mortar joints on the north porch. Some minor pitting of the face of the brick is detected, but not enough to warrant replacement of the masonry units. Again, the repointing of masonry facades is a maintenance-level action that will promote the longevity of the wall system.



Figure 10. The semi-weathering, Vermont gray-green "Sea Green" slate is in good condition. It is not possible to determine how long the slate will last. This slate has been quarried for less than 170 years and many of the earliest buildings slated with it still retain their original roofs. Maintenance is the key to the longevity of this roof system.



Figure 11. Broken slate at the eaves allowed water runoff to damage the cornice. The damage to the slate may have initially been caused by icy snow sliding off the tower roof, above.



Figure 12. While the western porch requires the most carpentry-related work, its masonry is in better overall condition than the other two. The volutes of the capitals are missing or in poor condition some are askew from their plinths. One column is completely missing.



Figure 13. Detail of the column bases. Decades of neglect have allowed the columns to deteriorate to this condition. The fact that they have survived, even in this condition, is a testament to the quality of materials. Note the “alligatoring” (crazed and cracking) of paint in the flutes, an indicator of lead-based paint.

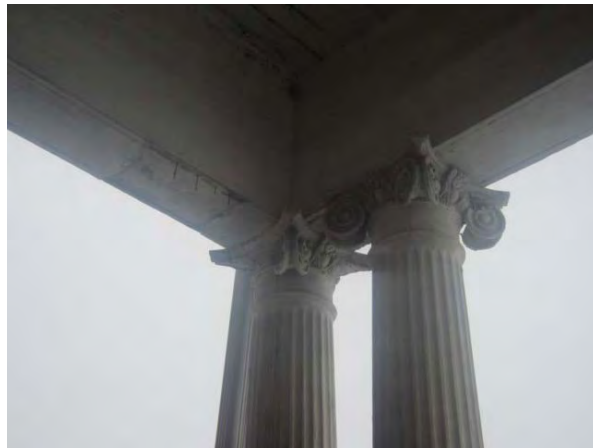


Figure 14. Missing column. While the capital of the corner column is missing two volutes, its neighbor, to the left, is missing altogether. These columns support the super structure of the porch roof above them.



Figure 15. This picture details the stop gap measures that have been employed at the masonry sidewall and cricket. The roofing tar contains bituminous by products that actually accelerates the deterioration of the copper sheet metal. The repairs are inappropriate, unsightly, and destroying adjoining slate.



Figure 16. The cricket behind the tower. Like the sidewall detail discussed in photo two, above, inappropriate materials and methods have been employed in an effort to prevent water infiltration. Slate roofs will last for hundreds of years. Replacement of sheet metal flashing assemblies, like this, after one hundred years of service life are considered part of the maintenance of a slate roof system.



Figure 17. The roof hatch, curbing, protrusions, and condition of the modified bitumen roof all appear to be in good condition. These elements should be inspected quarterly for leakage and potential failures from the roof and the attic, underneath.



Figure18. Roof structure. The structural members of the roof frame are in very good condition. No deflection or rotting was detected. Water staining, as shown in this image, was most likely incident specific or related to a missing slate which has since been replaced.





Figure 19. The chimney stack has not been maintained. A section of the sheet metal cap is missing and has allowed the top three courses of brick to fall into disrepair. These courses must be re-laid and sections of the stack repointed with an appropriate mortar.



Figure 20. The aluminum entry doors on the west porch are functional. Windows, panels and trim are in need of restoration.

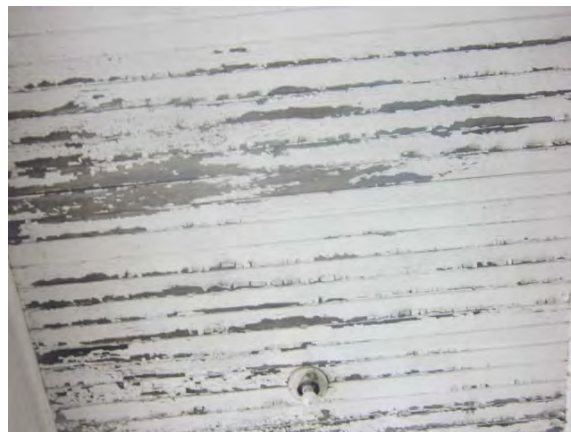


Figure 21. Underside of the west porch roof. The once-leaking roof was repaired or replaced but the ceiling was never prepped and repainted. The "alligatored" appearance of the failed coatings is indicative of lead in the paint.

reconstruction. Paint is peeling and fading at most locations. The undersides of the soffit and porch roofs show evidence of years of water damage that was stopped when roofing issues were addressed [figure 21]. Subsequent to this work, however, the soffits and ceilings were not scraped and painted. The steel fire escape has not been maintained and, as a result, the brick and stone masonry are rust-stained.

## RECOMMENDATIONS

The Secretary of the Interior provides four distinct but interrelated approaches to the treatment of historic properties. Each is defined, below, so that the recommendations of this conditions assessment can be weighed and considered in context:

- *Preservation* focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time;
- *Rehabilitation* acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character,
- *Restoration* is undertaken to depict a property at a particular period of time in its history, while removing evidence of other periods; and,
- *Reconstruction* re-creates vanished or non-surviving portions of a property for interpretive purposes.

The general recommendation of this report is to preserve and maintain the structure as it appears. All recommendations are in accordance with guidelines set forth by the National Park Service of the U.S. Department of the Interior. This means replacement of elements of the various systems that have outlived their useful life. For example, the sheet metal roof flashings are approximately 115 years old and should be replaced. But they must be replaced in kind, with new copper sheet metal that is installed in the same form and dimension as the details and assemblies it replaces. The issues of mortar joint deterioration with the brick and stone masonry, and paint and wood failures with the windows, carpentry and trim is exacerbated by the lack of roof drainage. For that reason, we are recommending the installation of a gutter system.

### Specific Recommendations

#### *Foundation*

There are cracks in at the four corners of the building and a handful of other specific locations that may be directly attributed to building settlement [figure 8]. Tell-tale gauges should be installed and monitored through four seasonal changes to detect any movement. Each week the gauges are manually inspected and findings recorded. For the sake of continuity and consistency, every effort should be made to minimize the number of individuals performing the inspections. Given the lack of roof and site drainage it is possible that heaving is occurring and causing movement in the foundation. Detection of movement is an indicator that a structural engineer should be consulted. Once it has been established that there is no movement, the cracks in the stone [figures 22, 23, 24] should be filled with an epoxy or low-shrinkage grout to prevent further water infiltration.



Figure 22. A failure to maintain the mortar joints of the belt course allowed precipitation to infiltrate on the northern elevation and exacerbating movement. Note crack in the stone of the foundation.



Figure 23. The cause of the crack in this cap stone, on the northern porch, is not immediately evident. There are no signs of failure elsewhere in the tower, and one corner is supported above this section of the porch. The use of tell-tales will indicate if any movement is taking place. It is most likely that some minor settlement occurred during or soon after construction. The result caused the crack in the cap to appear thereafter.



Figure 24. The porch side view of the crack discussed in Figure 23, above. Note the general deterioration of the brick mortar joints. Masonry will last for centuries if properly maintained. The repointing of mortar joints is critical to the longevity of a masonry structure.

Empty or failing mortar joints should be repointed as needed. The mortar should be tested for composition and appropriate recipe specified for repointing according to ASTM C-1324-03 *Standard Test Method for Examination & Analysis of Hardened Masonry Mortar* by a qualified materials conservator. The material must also be sympathetic in texture, color, strength and appearance to that in adjoining areas. All stone surface areas of Russell School must be repointed.

Prior to wholesale use of the new replacement mortar, a mock-up sample should be installed by a qualified craftsperson who understands the curing and application details of restoration masonry work. Once the mock-up sample is installed, appropriate precautions should be taken to ensure that the mortar is protected from wind, sun, rain and frost to enable slow curing to take place. The sample should be allowed to cure in the wall for a minimum of seven but preferably fourteen days before final color match is approved.

The failing and deteriorated mortar joints should be cleared by skilled masons with hand tools—not grinders and powered chisels. Joints should be cleared to a depth of roughly twice the height or width of the opening (i.e., a 3/8" joint should be 3/4" deep before repointing takes place.) The mortar should be tooled into the joints in 1/4" lifts and allowed to set up until pressing with force is required to leave a fingerprint.

Joints should be struck flat, revealing slightly the edge of the facing stone. Any mortar or residue left behind should be cleaned with a brush or sponge and clean, warm water. The new work should be protected from direct sunlight as it cures. Dampened burlap works well to shade the surfaces, and should be wetted regularly to prevent drying out.

### *Masonry Cleaning*

Prior to attempting to remove the rust stains from the brick and stone, the fire escape must be properly addressed. Cleaning of the masonry surfaces should not be undertaken until after rectifying the deficiencies in the fire escape that are causing the rusting. The surface areas should be inspected after several episodes of precipitation to confirm success of the treatments.

Thoroughly rinse the area to be treated with mineral water to prevent too deep a penetration of the chemical cleaning agent. Wet the affected area with a solution of 1 part sodium citrate and 6 parts water. Mix sodium hydrosulfite or sodium hypochlorite with filler material such as attapulgate clay to form a thick paste. Using a wooden or plastic spatula, apply the poultice to the stained area in layers no more than 1/4 inch thick.

The poultice should extend well beyond the stain to prevent forcing the stain into previously clean stone. Check the coating for air pockets or voids. Cover the poultice with plastic sheeting and seal with masking tape in order to prevent too quick of an evaporation. Re-wet the poultice with clean water as needed and leave in place for only 30 minutes. Remove the poultice with a wooden or plastic spatula to avoid scratching the surface.

Flush surface immediately with sodium citrate. Rinse the cleaned area with mineral water, blot with clean towels and allow the surface to dry. Once the surface has dried completely, check for remaining residue and repeat the treatment if necessary. Because the gneiss and brick are porous, many applications may be necessary.



## *Walls*

Like the foundation, above, empty or failing mortar joints should be repointed as needed. The mortar should be tested for composition and appropriate recipe specified for repointing according to ASTM C-1324-03 *Standard Test Method for Examination & Analysis of Hardened Masonry Mortar* by a qualified materials conservator. The material must also be sympathetic in texture, color, strength and appearance to that in adjoining areas. Approximately 30% of the brick surface areas need to be repointed.

Prior to wholesale use of the new replacement mortar, a mock-up sample should be installed by a qualified craftsperson who understands the curing and application details of restoration masonry work. Once the mock-up sample is installed, appropriate precautions should be taken to ensure that the mortar is protected from wind, sun, rain and frost to enable slow curing to take place. The sample should be allowed to cure in the wall for a minimum of seven but preferably fourteen days before final color match is approved.

The failing and deteriorated mortar joints should be cleared by skilled masons with hand tools—not grinders and powered chisels. Joints should be cleared to a depth of roughly twice the height or width of the opening (i.e., a 3/8" joint should be 3/4" deep before repointing takes place.) The mortar should be tooled into the joints in 1/4" lifts and allowed to set up until pressing with force is required to leave a fingerprint.

Joints should be struck flat with a slicker, revealing slightly the edge of the facing brick. Any mortar or residue left behind should be cleaned with a brush or sponge and clean, warm water. The new work should be protected from direct sunlight as it cures. Dampened burlap works well to shade the surfaces, and should be wetted regularly to prevent drying out.

## *Roofing*

The flashing assemblies of the cricket, stepped side-wall details, and rolled ridge over the hips should be replaced, in kind, with 20 oz/sq' cold-rolled, "red" copper sheet metal. In the event that asbestos materials are detected in the roofing mastic during demolition, care will be taken to abate said materials in compliance with state and local laws. Details specified for replacement flashing assemblies should be consistent with those found in the National Slate Association's *Slate Roofs: Design and Installation Manual* (2010) and SMACNA's *Architectural Sheet Metal Manual*, Sixth Edition. Any and all slate replacements should be with salvaged, Vermont semi-weathering, gray-green slate tiles.

The EPDM membranes on the porch roofs do not need to be replaced, nor does the modified bitumen roofing atop the hipped, main roof. Precedence for gutters exists at Russell School, as evidenced by the half-round gutter sections there. The 6" double-bead, half-round gutters, 4" smooth, seamless conductor pipes and accessory materials should be 20 oz/sq' "red" copper. The form of the cornice necessitates the use of brass strap hangers to ensure installation below the plane of the roof. At the porch roofs the gutters will be attached to the fascia with shanks and "C"-clamps.

Roof drainage materials to be installed to standards and specifications detailed in SMACNA's *Architectural Sheet Metal Manual*, Sixth Edition (i.e., joints soldered.) Gutters shall be installed along the eaves of the main roof, the tower roof and the east and west porch roofs. Slip tubes

and conductor pipes shall be installed at the corners of the main roof, at two locations of the tower roof, and at each end where the porch roof gutters meet the masonry wall. Leaders will connect with inlets, at grade, that connect to the site drainage system.

Care must be taken to pitch the gutters appropriately. Water will seek its own level and ¼" per ten feet in length is adequate. When calculating drainage capabilities, one square inch of outlet opening is required for each 100 SF area of roof surface being drained. Hence, the 4" outlets are more than adequate as each can service 1250 SF of roof surface area. Copper wire strainers should be installed at each outlet and checked biannually. If the strainers are maintained and allowed to perform, cleaning the gutters will be limited to the troughs. Otherwise, leaves and debris will find their way into and clog the conductor pipes.

### *Windows*

The original wood sash, sills and trim of the fenestration should be restored appropriately and re-glazed as needed. Repairs to wooden windows are usually labor intensive and relatively uncomplicated. The routine maintenance required to upgrade a window to "like new" condition normally includes: some degree of interior and exterior paint removal; removal and repair of sash (including re-glazing where necessary); repairs to the frame; weather-stripping and reinstallation of the sash; and, repainting. These steps are listed for a typical double-hung wooden window, but they are easily adapted to other window types and styles as needed.

Appropriate weather-stripping should be applied on the inside and out. All actions that involve the handling of wood must be performed in full compliance with the EPA's *Renovation, Repair and Painting* (RRP) regulations by a certified contractor if testing detects the presence of lead. Missing/broken glass of the aluminum storms should be replaced as needed. Some of these actions, such as the basic repairs to the storms, can probably be performed by Town building maintenance employees at minimal cost.

### *Doors*

The Town may consider replacing the entry doors at the three porches with historically appropriate doors. No recommendation is made as to do so would represent a reconstruction of details rather than a preservation of existing. At grade, on the west side, a door has been replaced with a historically inappropriate, residential-grade door. Again, no recommendation is made as to do so would represent a reconstruction of details rather than a preservation of existing. On the southern elevation, at the top of the fire escape, an original wooden, four-paneled door provides an egress point from the second floor. The door should be inspected and maintained as needed.

### *Carpentry and Trim*

The fascia, soffit, frieze, brackets, panels, moldings and other wood members must be scraped, primed and painted. All actions that involve the handling of wood must be performed in full compliance with the EPA's *Renovation, Repair and Painting* (RRP) regulations by a certified contractor if testing detects the presence of lead. Numerous of the architectural details which are defining features of Russell School have rotted and must be replaced, in kind, by skilled crafts persons. The fluted ionic columns boast voluted capitals that are largely rotted and gone. One column, on the western porch, is entirely missing while another is grossly askew. (Important

note: These columns support the super structure of the porch roof above them.) Temporary shoring of the West Porch roof with steel-encased concrete Lally columns is recommended as an immediate repair until the wooden column repairs are implemented.

Elsewhere, dentils of the architrave are missing, and a section of the crown profile of the cornice (northern elevation, west side of tower) has rotted. These wooden architectural materials must be replicated in kind with a sustainable wood material. Azek® and similar PVC composite materials are not acceptable according to the Secretary of the Interior's Standards as in kind materials are commercially available. Best practice generally dictates the specification of Spanish cedar or similar species. All wooden elements and the butt ends of scarf joints must be primed and painted on all sides before installation. Stainless steel finish screws are the preferred choice for exterior wood details. The second, final coat of paint will be applied to new work and repairs during acceptable weather conditions.

### *Chimney*

The sheet metal cap should be replaced in kind and several courses of brick rebuilt. An HVAC specialist should be consulted to determine if the missing portions of the cap comprised a manifold or a simpler assembly designed to shed water. Approximately 60% of the chimney has failing mortar joints and must be repointed. The chimney has belt courses comprised of molded brick. Special care should be taken to avoid damaging these details during the restoration work. Repointing work should be consistent with the recommendations detailed in the *Walls* section, above, with respect to materials and methods.

### *Stairways and Porches*

The eastern porch has a heaving section of wall that must be rebuilt. All stone surfaces need to be repointed because of failing mortar joints. The mortar used for the stone setting and repointing work should be consistent with the recommendations detailed in the *Foundation* and *Walls* sections, above. Unbroken treads should be set aside for use on the north porch. New steps should be matching in dimension and material, if possible. If Monson gneiss is unavailable, a similar granite or dolomitic limestone should be specified. New railings should be installed properly with lead filling and topped with commercial-grade mastic to prevent future spalling of the stone treads.

The northern porch stairway has heaved, cracked and failed because moisture was allowed in and the structure beneath subsequently heaved and failed. All treads should be removed and unbroken units set aside for reuse. The supporting structure beneath must be rebuilt. Combined with the salvaged units from the eastern stairway, the treads should be reinstalled to create a "new" staircase. New railings should be installed properly with lead filling topped with commercial-grade mastic to prevent future spalling. There is a crack through a gneiss cap stone on the outer portion of the east side. Tell-tale gauges should be installed and monitored to detect any movement. Once it has been established that there is no movement, the cracks in the stone should be filled with an epoxy or low-shrinkage grout to prevent further water infiltration. There is extensive mortar failure and some brick spalling within the brick surfaces of this porch.

All stone surfaces of the western porch need to be repointed because of failing mortar joints. The rubble, sub-grade portion of the foundation is visible and largely devoid of mortar. The

mortar used for the repointing work should be consistent with the recommendations detailed in the *Foundation* section, above. Failing grade and a sub-standard base has caused the stairs to become askew. A proper base must be created after excavating below the frost line. The stone of the stringer and steps can then be reset.

### *Fire Escape*

Fire escapes should be painted periodically as part of a regular maintenance plan. The paint acts as a protective barrier against moisture and other outdoor elements. If a fire escape is not properly maintained, bare metal becomes exposed and rust will form and weaken the integrity of the system.

Scrape rust and flaking paint off and pressure wash the fire escape. Allow to dry completely. Check any welding or joints and repair if necessary. Use drop cloths and tarps to protect surfaces below. Apply a coating of rust-inhibiting primer to the fire escape. Apply two coats of an enamel or oil-based paint. Wait for the fire escape to be completely dry before applying each primer and paint coating.

### *Landscaping*

With the exception of the western elevation which is built into the embankment, Russell School is sited on a relatively level parcel of land. On all elevations, at the ground level, the stone water table is bounded by blacktop that extends to the drip line of the roof and runs the perimeter of the foundation. This is in turn abutted by a poured concrete sidewalk, which also runs the perimeter of the building. Beyond the sidewalk to the road the terrain is lawn or asphalt parking areas. The blacktop around the building has been cracked and heaved over the years due to freeze thaw cycles, as has the concrete sidewalk. This process has altered the slopes of these hardscapes creating a situation where water runs towards the building envelope rather than away from it. It also has created dangerous walking conditions on the sidewalk, particularly on the Western side of the building, where the pitch is so altered that it has become impassable.

The recommendations of this section exceed the scope of this project and are provided as a courtesy. The existing asphalt edge around the perimeter of the building should be repaired to one foot beyond the drip edge at a slope of 4% towards the catch basins. Concrete sidewalks should be removed and replaced with semi permeable sidewalk at a slope of 2% away from the building. In keeping with the building materials, granite curbing and pavers could replace concrete sidewalks as they somewhat permeable if laid properly and much easier to repair when heaved by frost. The addition of a curtain drain around the perimeter of the structure will improve site drainage and remove the runoff channeled there by the conductor pipes from the gutters system.

The areas along the building between the drip edge and existing sidewalks are currently being used as gardens. It is recommended that if this practice is to be continued, plantings should be perennial ground cover such as pachysandra rather than flower beds. If it is determined to discontinue the use of these areas as planting beds, then the topsoil should be removed to three feet, a semi-permeable membrane laid and secured over subsoil and topped with ¾" gravel to grade. Finally, salt use in direct contact with the building envelope and gneiss stairs should be discontinued; calcium chloride is a cost effective alternative that will not damage the structure.

## **PRIORITIZATION OF TASKS**

The recommendations of this preservation plan have been prioritized according to criticality. While the roof and flashing assemblies generally top such lists, there were no active leaks detected in the attic of Russell School. Further, it was indicated by Town personnel that slate repairs were performed in late 2012. The greatest concerns are centered on the potential of movement at the corners of the foundation and the wide-reaching effects of poor roof and site drainage. The actions recommended are grouped in the following order:

### **IMMEDIATE (WITHIN THE NEXT 12 MONTHS)**

- Foundation – Installation of tell-tale gauges
- Windows – Replace/repair storm windows, as needed
- Stairway – Install temporary column supports at West Porch

### **INTERMEDIATE (IMPLEMENTATION IN YEARS 1 TO 3)**

- Roofing – Installation of 20 oz/sq’ “red” copper gutters
- Roofing – Installation of 20 oz/sq’ “red” copper leaders
- Stairway – Rebuild eastern porch stairs
- Stairway – Rebuild northern porch stairs
- Foundation – Repointing work
- Roofing – Replacement of cricket flashing assembly
- Roofing – Replace stepped side-wall flashing details
- Foundation – Installation of epoxy (or low shrinkage grout)
- Chimney – Rebuild top of chimney and repoint remainder
- Chimney – Install new copper sheet metal cap

### **MID-RANGE (IMPLEMENTATION IN YEARS 4 TO 6)**

- Stairway – Rebuild western porch stairs
- Carpentry – Wood repairs to east and west porch columns, ceilings and architraves, cornice, panels, trim, and other wood members, as needed
- Walls – Repointing work, as needed

### **LONG TERM (IMPLEMENTATION IN YEARS 7 TO 10)**

- Roofing – Replace rolled ridge on hips
- Windows – Restore original sash/window trim, as identified in the conditions assessment of the window schedule
- Trim – Scrape, prime and paint all wooden elements
- Stairway – Fire escape, prep, prime and paint
- Foundation – Masonry cleaning, application of poultice

## **ESTIMATES OF COSTS**

Estimates of cost assume that all work is performed at prevailing wage rates in compliance with the Davis-Bacon Act (40 U.S.C. 3141-3148) and state regulations at today’s rates. Pricing includes the costs to perform the itemized tasks (i.e., scaffolding, dumpsters, temporary facilities,

etc.) Cost estimates include a general contractor's fee for overhead and profit, bonding, and the restrictive payment terms associated with certified payroll (aka "rate" work) of 20%. Architects' and engineers' fees are estimated as a separate line item (for funding purposes) and are included in the *Timeline, Part 4*. Estimates of cost are for work performed as specified in the *Recommendations* section, above. Refer to that section for a detailed understanding of what each line item cost includes. Unit costs and quantities are included in the *Table 1*.

<i>Foundation</i>	<u>\$112,980</u>
Repointing work, as needed.	\$87,360
Installation of tell-tale gauges.	\$8,160
Installation of epoxy (or low shrinkage grout).	\$8,100
Masonry cleaning, application of poultice.	\$9,360
<i>Walls</i>	<u>\$57,024</u>
Repointing work, as needed.	\$57,024
<i>Roofing</i>	<u>\$97,921</u>
Installation of 20 oz/sq' "red" copper gutters.	\$26,862
Installation of 20 oz/sq' "red" copper leaders.	\$21,120
Replacement of cricket flashing assembly.	\$13,939
Replace stepped side-wall flashing details.	\$13,728
Replace rolled ridge on hips.	\$22,272
<i>Windows</i>	<u>\$68,818</u>
Restore original sash/window trim, as needed.	\$67,896
Replace missing glass of the storms, as needed.	\$922
<i>Carpentry and Trim</i>	<u>\$154,860</u>
Scrape, prime and paint all wooden elements.	\$62,220
Wood repairs to East and West Porch columns, ceilings and architraves, cornice, panels, trim, and other wood members, as needed.	\$92,160
Install temporary Lally columns at West Porch	\$480
<i>Chimney</i>	<u>\$17,568</u>
Install new copper sheet metal cap.	\$1,440
Rebuild top of chimney and repoint remainder.	\$16,128
<i>Stairways and Porches</i>	<u>\$144,420</u>
Rebuild eastern porch stairs.	\$39,120
Rebuild northern porch stairs.	\$45,840
Rebuild western porch stairs.	\$53,760
Fire escape, prep, prime and paint.	\$5,700
<i>Contingency</i>	<u>\$65,359</u>

*Total:* **\$718,950**

Table 1- Unit Costs

<u>System</u> Task	Units	Price per Unit	Cost for Task	Sub- Totals	Total \$718,950
<u>Foundation</u>				\$112,980	
Repointing work, all stone surface areas	2600 SF	\$33.60/SF	\$87,360		
Installation of tell-tale gauges	20 UNITS	\$408/EA	\$8,160		
Installation of epoxy (or low shrinkage grout)	50 LF	\$162/LF	\$8,100		
Masonry cleaning, application of poultice	65 SF	\$144/SF	\$9,360		
<u>Walls</u>				\$57,024	
Repointing work, as needed	1,320 SF	\$43.20/SF	\$57,024		
<u>Roofing</u>				\$97,927	
Installation of 20 oz/sq' "red" copper gutters	407 LF	\$66/LF	\$26,852		
Installation of 20 oz/sq' "red" copper leaders	320 LF	\$66/LF	\$21,120		
Replacement of cricket flashing assembly	48 SF	\$290.40/SF	\$13,939		
Replace stepped side-wall flashing details	44 LF	\$312/LF	\$13,728		
Replace rolled ridge on hips	180 LF	\$123.60/LF	\$22,248		
<u>Windows</u>				\$68,818	
Restore original sash/window trim, as needed	123 units	\$552/EA	\$67,896		
Replace missing glass of the storms, as needed	12 units	\$76.80/EA	\$922		
<u>Carpentry and Trim</u>				\$154,860	
Scrape, prime and paint all wooden elements	3,400 SF	\$18.30/Sf	\$62,220		
Wood repairs to east and West Porch columns, ceilings and architraves, cornice, panels, trim, and other wood members, as needed	one proj.	\$92,160	\$92,160		
Install temporary Lally columns at West Porch	2 units	\$240/EA	\$480		
<u>Chimney</u>				\$17,568	
Install new copper sheet metal cap	one unit	\$1,440	\$1,440		
Rebuild top of chimney and repoint remainder	one proj.	\$16,128	\$16,128		
<u>Stairways and Porches</u>				\$144,420	
Rebuild eastern porch stairs	one proj.	\$39,120	\$39,120		
Rebuild northern porch stairs	one proj.	\$45,840	\$45,840		
Rebuild western porch stairs	one proj.	\$53,760	\$53,760		
Fire escape, prep, prime and paint	200 SF	\$28.50/SF	\$5,700		
<u>Contingency</u>				\$65,359	
Hidden conditions	one unit	10%	\$65,359		

## REFERENCES

American Society for Testing and Materials ASTM C-1324-03 “Standard Test Method for Examination & Analysis of Hardened Masonry Mortar”

Weeks, Kay D., and Grimmer, Anne E. “The Secretary of the Interior's Standards for the Treatment of Historic Properties with Illustrated Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, Washington, D.C.: U.S. Government Printing Office, 1995

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Russell School, Form B - Building, MHC, 1985

“Hadley Center Historic District,” National Register of Historic Places, Nominating document of multiple resource area (NRHP reference no. 1977-000185)

National Slate Association, “Slate Roofs: Design and Installation Manual,” 2010

Letter from Harvey & Tracy, Inc., Engineers to Superintendent of Schools regarding structural integrity of interior bearing walls dated January 25, 1990

Letter from Harold L Eaton & Associates, Inc., Land Surveyors to Superintendent of Schools regarding floor level elevations dated June 12, 1990

Russell School Feasibility Study, Margo Jones Architects, 1990.



## **ADDENDA**

## **ADDENDUM A**

### **INTERIOR VISUAL SURVEY**

#### **Introduction**

The purpose of the interiors assessment of Russell School is to give a broad overview of the existing original interior finishes and their state of repair from a historic preservation perspective. The finish systems reviewed in this report are flooring, wall treatment, doors, decorative trim and ceilings. The assessment was conducted using visual surveys. No destructive probes or dismantling of systems were performed. This report endeavors to provide a description of the original finish scheme of the historic interior. New finishes, such as resilient flooring, gypsum wallboard walls and flush wood doors are relatively limited in scope and are not part of this interior assessment. This section of the report will provide a basis for a detailed historic interiors conditions assessment.

Building code and accessibility compliance reviews are not the focus of this report. Review of building systems such as electrical service, HVAC and fire protection would be strongly recommended once the Town of Hadley determines the long-term use of the building.

#### **Summary**

Russell School has more or less been in continuous use as a school for 120 years. The original interior partition layout of Russell school remains largely intact. Where rooms have been subdivided, new spaces created and corridors partitioned-off, new construction is obvious from its method of construction and use of materials [figure 25]. In most instances, it appears that original construction was not removed.

Russell School retains the vast majority of its original interior finishes. There are limited areas such as the Second Floor Main Hall where original finishes have been removed or altered to accommodate newer construction [figure 26]. In general, the original finishes are sound and appear to need only routine repairs such as painting.

It is evident that the original school building was well designed and considerate of its intended occupants. There is excellent natural daylight in all the classrooms. The scale of the rooms is intimate due to the wall treatment and the high ceilings give a very open and airy feel. The uses of materials are well employed to withstand the wear and tear on the architecture by students.

#### **Flooring**

All main spaces within the building, including Classrooms and Main Hallways have narrow plank maple flooring with a clear-coat finish. In the Main Hallways and some Classrooms the maple is natural - these spaces have been refinished over the years. Other classrooms have either darkened with age or have been stained. In one instance the floor closely resembles in color the wood trim used throughout the building- this may have been the original design intent of the architect. There is evidence that the maple may not be the original flooring and was applied over a dark-stained southern yellow pine [figure 27]. Further investigation is required to make a final determination of the original finish floor. The maple flooring is in excellent condition; the finish coating ranges are serviceable.



Figure 25- 2nd Floor Corridor showing sheetrock wall in-filled in plaster arch.



Figure 26- 1st Floor Corridor showing newer paneling and crown molding to the right abutting original paneling and molding to the left.



Figure 27- 2nd Floor Closet with (probable) original Southern pine flooring and overlaid with maple flooring in the corridor.



Figure 28- Second Floor Corridor with typical common space wainscot, crown molding and plaster wall. Note maple flooring in foreground and pine flooring at stair landing.

Auxiliary spaces such as closets and the Main Stair have dark-stained softwood flooring where visible (the stair treads are presently covered with resilient flooring). The stain color is most likely original in that it closely resembles that of the wall paneling. The wood appears to be in sound. The wood finish, particularly at the stair landings, is worn through to bare wood.

### Wall Treatment

Wall finishes throughout the building are consistent in materials, finishes and details. They appear to be largely intact. Ceiling heights are approximately 12-14' high. In the common spaces such as stairways and halls there is a six-foot high wood wainscot designed as a durable protective surface below painted plaster to the ceiling. The wainscot is made from vertically oriented softwood double-beaded boards with dark stain and varnish finish. It is terminated with a crown molding [figure 28]. The typical classroom has an integral slate blackboard in the upper two-thirds of wainscot with the same crown molding at the six-foot level. There is a carved wood chalk tray integrated into the wainscot at the base of the blackboards. The wainscot covers every wall throughout the building, including blackboards between windows and doors in the classrooms [figure 29]. The typical offices on the north side of the Main Hallway have an approximate 30" high wainscot with chair rail that matches the details of the other wainscot [figure 30]. The typical classroom has a wood picture rail at approximately the twelve-foot level. It matches the wainscot in color and species. The wood wainscot and picture rail are very sound; the varnish finish is very worn and crackled; and the slate is sound but cracked in limited instances.

The painted plaster walls including the large arched openings in the Main Hallways (that mirror the design of the exterior windows) are articulated at all outside corners with staff beads [figure 31]. The plaster is in very sound. Paint is in poor condition.

A panelized wall surface appears to have been applied to the walls in two of the Second Floor classrooms. Further investigation is required to determine whether the original finishes remain beneath the panels.

### Doors and Hardware

Except for exterior doors and doors in new construction, all door openings and doors appear to be original. Typical doors have five flat panels [figure 32]. Classroom and office doors accessed from the main halls have an additional borrowed light glass transom. The doors are finished to match the wainscot. Door knobs, probably original, are cast bronze with cast bronze escutcheons [figure 33]. Doors are in sound condition except where hardware has been added or removed.

### Trim

Trim consists of interior window and door frames and stairs. All trim is in place and retains its original dark stain and varnish finish. Guardrails at the stair landings match the wainscot in detail, material and finish. There are unadorned square, solid newel posts with Gothic-type tapered points that appear original [figure 34]. Wall-mounted handrails appear to retain original brass escutcheons and cast brass brackets. Windows, painted on the exterior, are stained and varnished inside [figure 35]. All the wood appears in very sound. Varnish finish is crackled and darkened with age.



Figure 29- Typical Classroom with wood wainscot, slate blackboard and wood picture rail.



Figure 30- Typical Office on 2nd Floor with wood wainscot and crown molding.



Figure 31- 1st Floor Corridor- plaster arch with double-beaded edge detail.



Figure 32- Typical original door.





Figure 33- Typical bronze knob and atypical escutcheon plate.



Figure 34- 2nd Floor Stair landing with typical railings. Note floor material changes.



Figure 35- Typical 2nd Floor window trim and built-in blackboards.

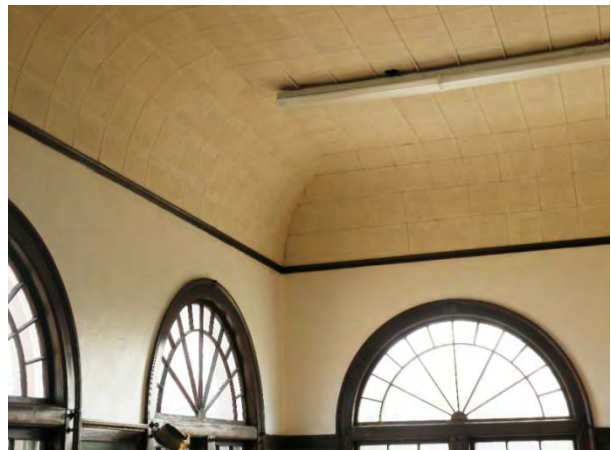


Figure 36- 2nd Floor Classroom with coved ceiling and applied acoustical ceiling tile.

## Ceilings

Typical ceilings in halls and offices are flat. Typical ceilings in classrooms are coved where they meet the walls. Both ceiling types, throughout the building, are covered with painted acoustic ceiling tiles. (The sound-absorbing property of acoustic tiles is compromised once they've been painted.) The ceiling tiles appear to have been applied directly to the original plaster ceiling [figure 36].

The structural framing for the Second Floor coved ceilings is visible in the attic; however only the East Classroom retains its cove inside the room. It appears that the flat acoustic ceiling in the other Second Floor classrooms may be suspended from the original above. (These other rooms were subdivided in the relatively recent past.) Further investigation is required to determine the condition of the original plaster ceilings and the status of the coved ceilings on the Second Floor.

## **ADDENDUM B**

### **DRAWINGS**



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GENERAL NOTES

- 1. SCRAPE, PRIME AND PAINT ALL WOOD ELEMENTS INCLUDING TRIM, WINDOWS. COLUMNS, CORNICES, BRACKETS, PANELS, SOFFITS, ETC.— 100%
- 2. PROVIDE PAINT COLOR ANALYSIS AT TRIM, CASINGS, COLUMNS, WINDOWS AND DOORS.
- 3. PROVIDE MORTAR ANALYSIS AT BRICK AND STONE.
- 4. RE—POINT BRICK AT WALLS, ARCHIVOLTS, CORBELLS, ARCHES, ETC. AS REQUIRED.
- 5. SEE DOOR AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
- 6. REPLACE SIDING IN BELFRY OPENINGS WITH LOUVERS AND BIRD SCREENS— OPTIONAL.
- 7. REPLACE SPALLED BRICK AT FIRST FLOOR INTERIOR OF BELL TOWER.
- 8. RE—POINT STONE FOUNDATION— 100%.

KEY NOTES

- 01 NEW COPPER SHEET METAL CAP/REBUILD TOP OF CHIMNEY AND REPOINT REMAINDER
- 02 REPLACE ROLLED RIDGE ON HIPS
- 03 REPLACE CRICKET FLASHING ASSEMBLY
- 04 REPLACE STEPPED SIDE—WALL FLASHING
- 05 SCRAPE, PRIME AND PAINT WOOD TRIM— 100%
- 06 REPOINT BRICK
- 07 REPOINT STONE— 100%
- 08 INSTALL LOW—SHRINK GROUT POINTING
- 09 REBUILD STONE STEPS
- 10 INSTALL TELL—TALE GAUGES
- 11 REPAIR SPALLED BRICK AT INSIDE OF PORCH
- 12 FURNISH AND INSTALL WOOD DENTIL MOLDINGS
- 13 RESET STONE KNEE WALL
- 14 FURNISH AND INSTALL NEW WOOD COLUMN
- 15 RECONSTRUCT WOOD COLUMN ELEMENTS
- 16 CLEAN BRICK AND STONE
- 17 PREPARE AND PAINT FIRE ESCAPE

SYMBOLS LEGEND

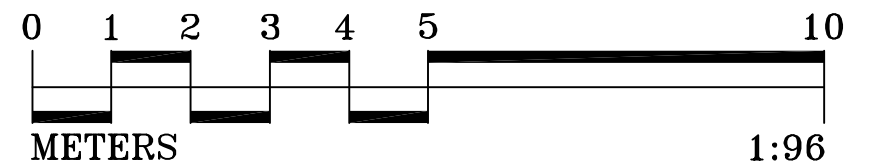
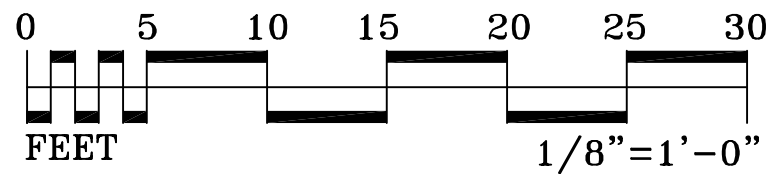
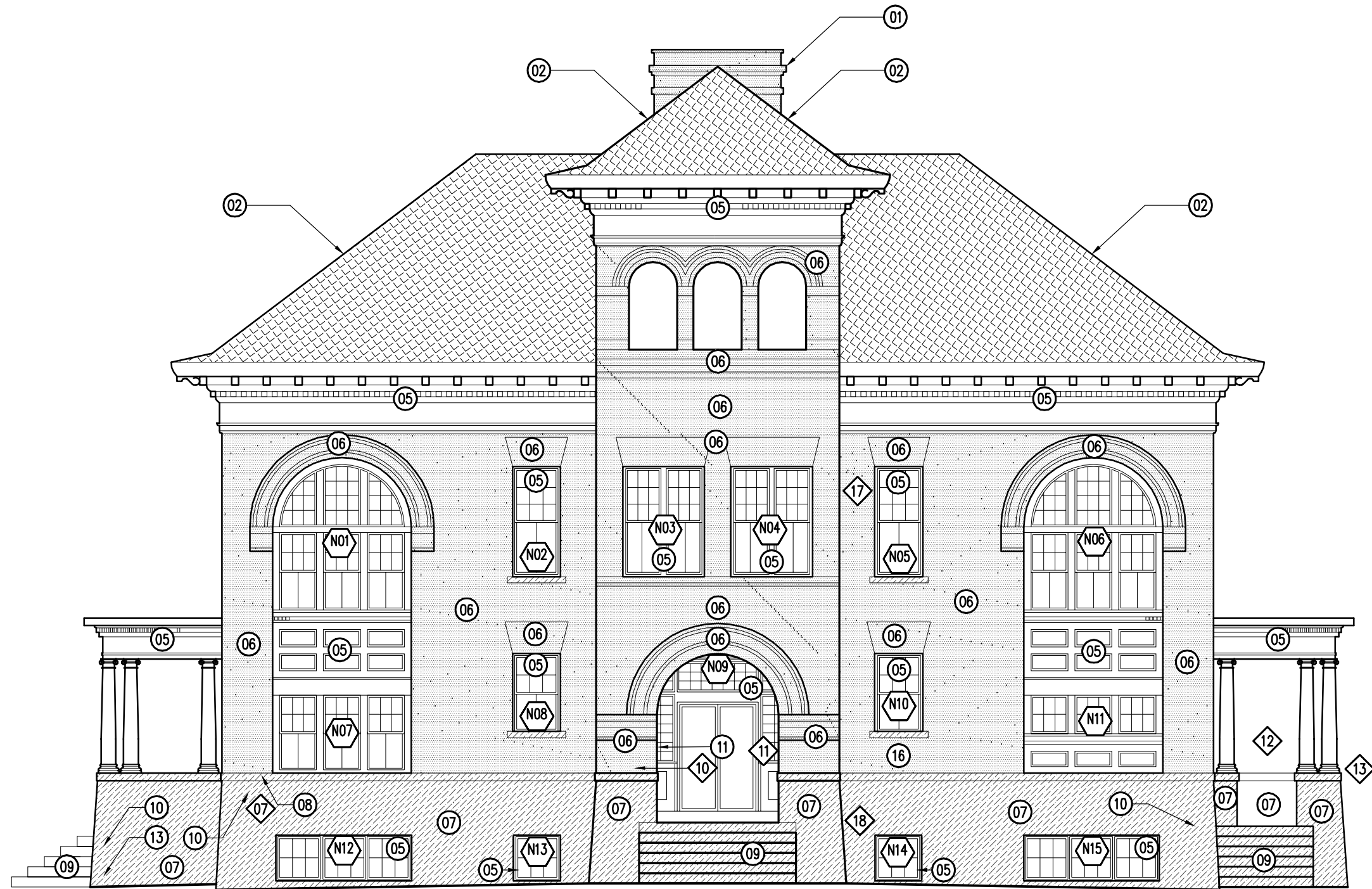
- # KEY NOTE
- # WINDOW NUMBER
- # PHOTO KEY

MATERIALS LEGEND

- SLATE
- WOOD
- BRICK
- STONE

Project	RUSSELL SCHOOL	Number	RS-1
Description	DRAWING NOTES AND LEGENDS	Scale	AS NOTED
Issue/Rev	1	Date	MARCH 12, 2013

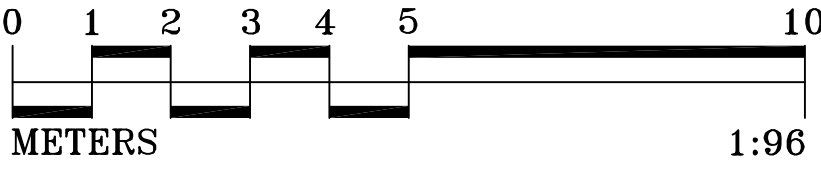
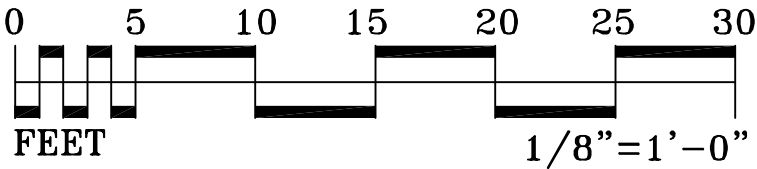
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Project	<b>RUSSELL SCHOOL</b>
Description	<b>NORTH FACADE CONDITIONS ASSESSMENT</b>
Issue/Rev	<b>1</b>

Number	<b>RS-2</b>
Scale	<b>AS NOTED</b>
Date	<b>MARCH 26, 2013</b>

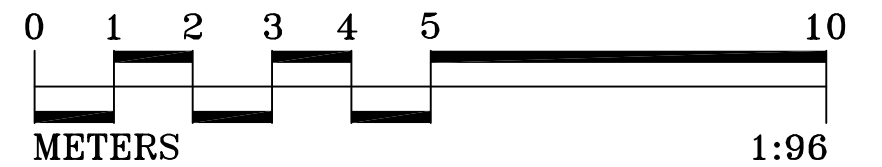
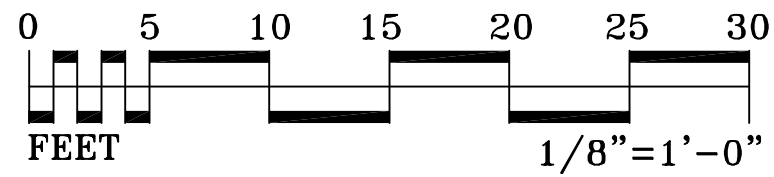
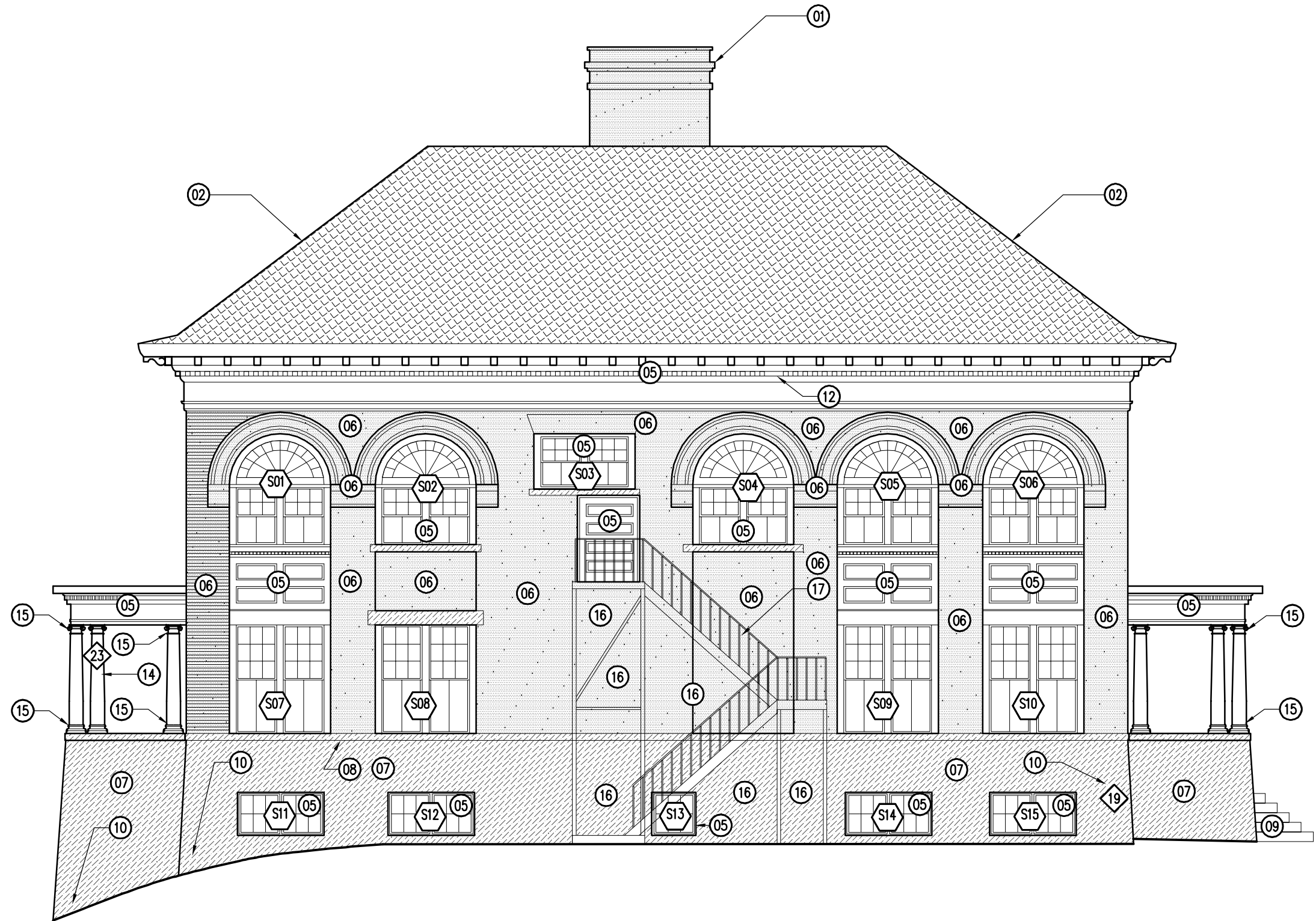
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Project	<b>RUSSELL SCHOOL</b>	
Description	<b>EAST FACADE CONDITIONS ASSESSMENT</b>	
Issue/Rev	<b>1</b>	

Number	<b>RS-3</b>
Scale	<b>AS NOTED</b>
Date	<b>MARCH 26, 2013</b>

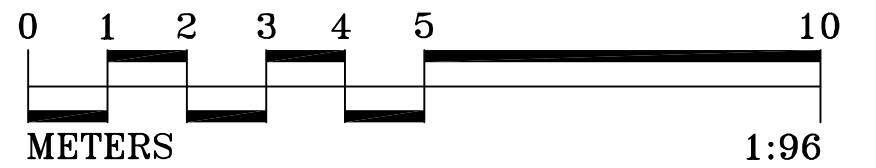
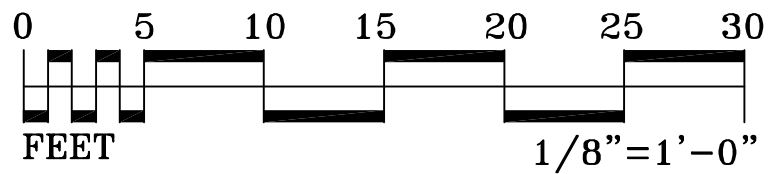
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Project	<b>RUSSELL SCHOOL</b>
Description	<b>SOUTH FACADE CONDITIONS ASSESSMENT</b>
Issue/Rev	<b>1</b>

Number	<b>RS-4</b>
Scale	<b>AS NOTED</b>
Date	<b>MARCH 26, 2013</b>

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Project	RUSSELL SCHOOL
Description	WEST FACADE CONDITIONS ASSESSMENT
Issue/Rev	1

Number	RS-5
Scale	AS NOTED
Date	MARCH 26, 2013

**ADDENDUM C****WINDOW SCHEDULE**

<b>WINDOW TYPES FOR: Russell School</b>					
<b>TOTAL</b>	<b>TYPE</b>	<b>DESCRIPTION</b>	<b>SASH SIZE (W x H)</b>		<b>LOCATION</b>
			<b>Top</b>	<b>Bottom</b>	
2	A	9 over 2	32x41	32x43	N2, N5
2	B	6 over 10	32x29	32x29	N8, N10
3	C	6 over 2	36x20	36x20	S3, E3, E8
8	D	9 over 2	36x41	36x43	S7-10, E6-7, W7-8
4	H	9 over 2	36x42	36x42	N3-4, W1, E5
12	E	Tripartite with fan light 18 lights 6 over 2	78x39 36x23	36x23	S1-2, S4-6, E1-2, E4, W2-5
3	F	Entry transoms 21 lights 9 lights 21 lights 9 lights 21 lights	31x58 31x23 31x62 31x23 31x58		N9, E9, W6
2	J	Tripartite with divided fan 6 over 2 Divided fan lights	32x29 var.	32x29	N1, N6
1	G	6 over 2	32x29	32x29	N7
1	I	6 lights	32x30		N11
21	K	6 lights	33x33		N12-15, S11-15, E10-11
3	N	9 over 2	35x37	35x37	W9-10

ADDENDUM C - WINDOW SCHEDULE: Russell School												
CONDITIONS ASSESSMENT												
NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash				Bottom Sash			NOTES	
				Frame	Broken Muntin	Broken Light	Glazing	Frame	Broken Muntin	Broken Light	Glazing	
W1a	2 <sup>nd</sup> Floor	H	N/A	Good	No	No	Good	Good	No	No	Good	
W1b	2 <sup>nd</sup> Floor	H	N/A	Good	No	No	Good	Good	No	No	Good	
W2a	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Poor					Reinstate/repair mullion
W2b	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Poor	Fair	No	No	Poor	Reinstate/repair mullion
W2c	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Poor	Fair	No	No	Fair	
W3a	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Fair					Frame rotted
W3b	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	Frame rotted
W3c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	
W4a	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Fair					Some wood rot
W4b	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	Some wood rot
W4c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	God	No	No	Good	Some wood rot
W5a	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Fair					
W5b	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	
W5c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	
W6a	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Poor					
W6b	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Poor					
W6c	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Poor					
W6d	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Poor					
W6e	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Poor					
W7a	1st Floor	D	Repair	Fair	No	No	Fair	Fair	No	No	Fair	Mullion and frame rot
W7b	1 <sup>st</sup> Floor	D	Repair	Fair	No	No	Good	Fair	No	No	Good	Mullion and frame rot
W8a	1 <sup>st</sup> Floor	D	Repair	Fair	No	No	Poor	Fair	No	No	Poor	Mullion and frame rot
W8b	1 <sup>st</sup> Floor	D	Repair	Fair	No	No	Fair	Fair	No	No	Poor	Mullion and frame rot
W9a	Bsmt	N	Repair	Poor	No	No	Fair	Poor	No	No	Poor	Mullion and frame rot

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash Frame	Broken Muntin	Broken Light	Glazing	Bottom Sash Frame	Broken Muntin	Broken Light	Glazing	NOTES
W9b	Bsmt	N	Repair	Poor	No	No	Poor	Poor	No	No	Poor	Mullion and frame rot
W10a	Bsmt	N	Repair	Fair	No	No	Good	Poor	No	No	Poor	
W10b	Bsmt	N	N/A									Door instead
S1a	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Fair					Sill rot
S1b	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	
S1c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	
S2a	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Fair					
S2b	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Good	Fair	No	No	Fair	
S2c	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Good	Good	No	No	Good	
S3a	2 <sup>nd</sup> Floor	C	N/A	Good	No	No	Good	Good	No	No	Good	
S3b	2 <sup>nd</sup> Floor	C	N/A	Good	No	No	Good	Good	No	No	Good	
S4a	2 <sup>nd</sup> Floor	E	Repair	Poor	No	No	Poor					Some frame rot
S4b	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Fair	Some frame rot
S4c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Fair	Good	No	No	Fair	Some frame rot
S5a	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good					
S5b	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Fair	
S5c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Fair	Good	No	No	Good	
S6a	2 <sup>nd</sup> Floor	E	N/A	Good	No	No	Good					
S6b	2 <sup>nd</sup> Floor	E	N/A	Good	No	No	Good	Good	No	No	Good	
S6c	2 <sup>nd</sup> Floor	E	N/A	Good	No	No	Good	Good	No	No	Good	
S7a	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Fair	Good	No	No	Good	Minor rot at mullion
S7b	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Fair	Good	No	No	Good	Minor rot at mullion
S8a	1 <sup>st</sup> Floor	D	N/A	Good	No	No	Good					Minor rot at mullion
S8b	1 <sup>st</sup> Floor	D	N/A	Good	No	No	Good	Good	No	No	Good	Minor rot at mullion
S9a	1 <sup>st</sup> Floor	D	N/A	Good	No	No	Good	Good	No	No	Good	Minor rot at mullion



NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash Frame	Broken Muntin	Broken Light	Glazing	Bottom Sash Frame	Broken Muntin	Broken Light	Glazing	NOTES
S9b	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Fair	Good	No	No	Fair	Minor rot at mullion
S10a	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Good	Good	No	No	Fair	Minor rot at mullion
S10b	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Good	Good	No	No	Fair	Minor rot at mullion
S11a	Bsmt	M	Repair	Fair	No	No	Poor					
S11b	Bsmt	M	Repair	Fair	No	No	Fair					
S12a	Bsmt	M	N/A	Good	No	No	Good					
S12b	Bsmt	M	N/A	Good	No	No	Good					
S13	Bsmt	L	Repair	Poor	No	No	Good					
S14a	Bsmt	M	Repair	Poor	No	No	Poor					
S14b	Bsmt	M	Repair	Poor	No	No	Fair					
S15a	Bsmt	M	Repair	Fair	No	1	Good					One broken light
S15b	Bsmt	M	Repair	Fair	No	2	Poor					Two broken lights
E1a	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Poor					Sill rot
E1b	2 <sup>nd</sup> Floor	E	N/A	Good	No	No	Good	Good	No	No	Good	Sill rot
E1c	2 <sup>nd</sup> Floor	E	N/A	Good	No	No	Good	Good	No	No	Good	Sill rot
E2a	2 <sup>nd</sup> Floor	E	Repair	Fair	No	No	Poor		No	No		
E2b	2 <sup>nd</sup> Floor	E	N/A	Good	No	No	Good	Good	No	No	Good	
E2c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Good	No	No	Good	
E3a	2 <sup>nd</sup> Floor	C	N/A	Good	No	No	Good	Good	No	No	Good	Minor mullion rot
E3b	2 <sup>nd</sup> Floor	C	N/A	Good	No	No	Good	Good	No	No	Good	Minor mullion rot
E4a	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Fair					
E4b	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Fair	Good	No	No	Fair	
E4c	2 <sup>nd</sup> Floor	E	Repair	Good	No	No	Good	Fair	No	No	Fair	
E5a	2 <sup>nd</sup> Floor	H	N/A	Good	No	No	Good	Good	No	No	Good	Reinstate mullion
E5b	2 <sup>nd</sup> Floor	H	N/A	Good	No	No	Good	Good	No	No	Good	Reinstate mullion

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash Frame	Broken Muntin	Broken Light	Glazing	Bottom Sash Frame	Broken Muntin	Broken Light	Glazing	NOTES
E6a	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Good	Good	No	No	Fair	Some frame rot
E6b	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Good	Good	No	No	Poor	Some frame rot
E7a	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Poor	Good	No	No	Good	
E7b	1 <sup>st</sup> Floor	D	Repair	Good	No	No	Fair	Good	No	No	Good	
E8a	1 <sup>st</sup> Floor	C	N/A	Good	No	No	Good	Good	No	No	Good	
E8b	1 <sup>st</sup> Floor	C	N/A	Good	No	No	Good	Good	No	No	Good	
E9a	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Poor					
E9b	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Fair					
E9c	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Fair					
E9d	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Fair					
E9e	1 <sup>st</sup> Floor	F	Repair	Fair	No	No	Poor					
E10a	Bsmt	M	Repair	Good	No	No	Fair					
E10b	Bsmt	M	Repair	Fair	No	No	Good					
E11a	Bsmt	M	Repair	Poor	No	No	Fair					
E11b	Bsmt	M	N/A									Replaced by vent
N1a	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Poor					
N1b	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Poor					
N1c	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Poor					
N1d	2 <sup>nd</sup> Floor	J	N/A	Good	No	No	Good	Good	No	No	Good	
N1e	2 <sup>nd</sup> Floor	J	N/A	Good	No	No	Good	Good	No	No	Good	
N1f	2 <sup>nd</sup> Floor	J	N/A	Good	No	No	Good	Good	No	No	Good	
N2	2 <sup>nd</sup> Floor	A	N/A	Good	No	No	Good	Good	No	No	Good	
N3a	2 <sup>nd</sup> Floor	H	N/A	Good	No	No	Good	Good	No	No	Good	Mullion rotted
N3b	2 <sup>nd</sup> Floor	H	N/A	Good	No	No	Good	Good	No	No	Good	Mullion rotted

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash Frame	Broken Muntin	Broken Light	Glazing	Bottom Sash Frame	Broken Muntin	Broken Light	Glazing	NOTES
N4a	2 <sup>nd</sup> Floor	H	Repair	Good	No	No	Fair	Good	No	No	Good	
N4b	2 <sup>nd</sup> Floor	H	Repair	Good	No	No	Fair	Good	No	No	Good	
N5	2 <sup>nd</sup> Floor	A	Repair	Good	No	No	Good	Good	No	No	Good	
N6a	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Good	Good	No	No	Good	
N6b	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Good	Good	No	No	Good	
N6c	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Good	Good	No	No	Good	
N6d	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Good	Good	No	No	Good	
N6e	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Good	Good	No	No	Good	
N6f	2 <sup>nd</sup> Floor	J	Repair	Good	No	No	Good	Good	No	No	Good	
N7a	1 <sup>st</sup> Floor	G	Repair	Good	No	No	Good	Good	No	No	Good	Mullion rotted
N7b	1 <sup>st</sup> Floor	G	Repair	Good	No	No	Good	Good	No	No	Good	Mullion rotted
N7c	1 <sup>st</sup> Floor	G	Repair	Good	No	No	Good	Good	No	No	Good	Mullion rotted
N8	1 <sup>st</sup> Floor	B	Repair	Good	No	No	Good	Good	No	No	Good	
N9a	1 <sup>st</sup> Floor	F	Repair	Good	No	No	Poor	Good	No	No	Good	
N9b	1 <sup>st</sup> Floor	F	Repair	Good	No	No	Fair	Good	No	No	Good	
N9c	1 <sup>st</sup> Floor	F	Repair	Good	No	No	Fair	Good	No	No	Good	
N9d	1 <sup>st</sup> Floor	F	Repair	Good	No	No	Fair	Good	No	No	Good	
N9e	1 <sup>st</sup> Floor	F	Repair	Good	No	No	Poor	Good	No	No	Good	
N10	1 <sup>st</sup> Floor	B	Repair	Good	No	No	Good	Good	No	No	Good	
N11a	1 <sup>st</sup> Floor	I	Repair	Good	No	No	Fair					
N11b	1 <sup>st</sup> Floor	I	Repair	Good	No	2	Fair					Two lights are a vent
N11c	1 <sup>st</sup> Floor	I	Repair	Good	No	No	Fair					
N12a	Bsmt	K	Repair	Good	No	No	Good					Rotted frame
N12b	Bsmt	K	Replace	Poor	No	1	Poor					Electrical service

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash Frame	Broken Muntin	Broken Light	Glazing	Bottom Sash Frame	Broken Muntin	Broken Light	Glazing	NOTES
N12c	Bsmt	K	Replace									Wood window is gone
N13	Bsmt	L	Repair	Poor	No	No	Good					Rotted sill
N14	Bsmt	L	Repair	Good	No	No	Good					
N15a	Bsmt	K	Replace	Poor	No	No	Poor					Extensive frame rot
N15b	Bsmt	K	Replace	Poor	No	2	Poor					Two lights are a vent
N15c	Bsmt	K	Replace									Window is gone and now boarded up

**ADDENDUM D**

ROOF REPORT

# Aerial Measurement Report

Prepared by Olde Mohawk Masonry & Historic Restoration

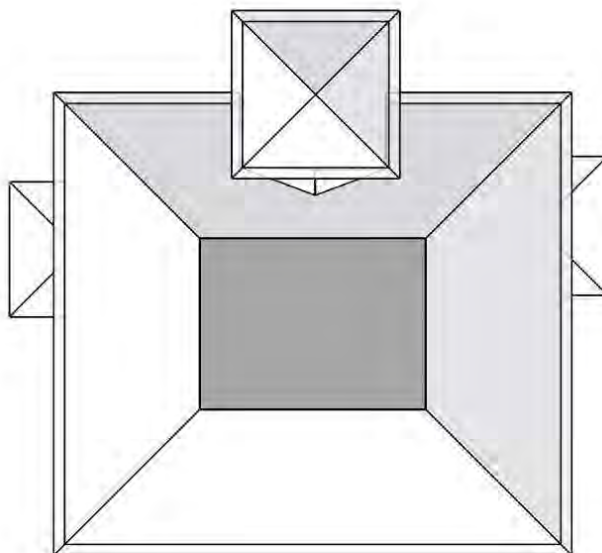


135 Russell St, Hadley, MA 01035-9428



Olde Mohawk Masonry & Historic Restoration  
PO Box 9268  
Niskayuna, NY 12309

Ward Hamilton  
tel. 877.622.8973  
email: [OldeMohawkInc@gmail.com](mailto:OldeMohawkInc@gmail.com)  
[OldeMohawk.com](http://OldeMohawk.com)

**135 Russell St, Hadley, MA 01035-9428**


In this 3D model, facets appear as semi-transparent to reveal overhangs.

**Report Details**

Report:5668492  
Claim: Russell School

**Roof Details**

Total Roof Area =5,885 sq ft  
Total Roof Facets =26  
Predominant Pitch =8/12  
Number of Stories >1  
Total Ridges/Hips =241 ft  
Total Valleys =22 ft  
Total Rakes =0 ft  
Total Eaves =407 ft  
Total Penetrations =1  
Total Penetrations Perimeter = 28 ft  
Total Penetrations Area = 45 sq ft

**Report Contents**

Images. ....2  
Length Diagram.....5  
Pitch Diagram.....6  
Area Diagram. ....7  
Notes Diagram .....8  
Penetrations Diagram .....9  
Report Summary.....10  
Additional Property Information ....12

Contact: Ward Hamilton  
Company: Olde Mohawk Masonry & Historic  
Restoration  
Address: 1174 Van Antwerp Road  
Niskayuna, NY 12309  
Phone: 781-686-6999

Measurements provided by [www.eagleview.com](http://www.eagleview.com)



**Certified Accurate**

[www.eagleview.com/Guarantee.aspx](http://www.eagleview.com/Guarantee.aspx)

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## Images

The following aerial images show different angles of this structure for your reference.

Top View



Report: 5668492  
Claim: Russell School

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North Side



South Side



Report: 5668492  
Claim: Russell School

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East Side



West Side

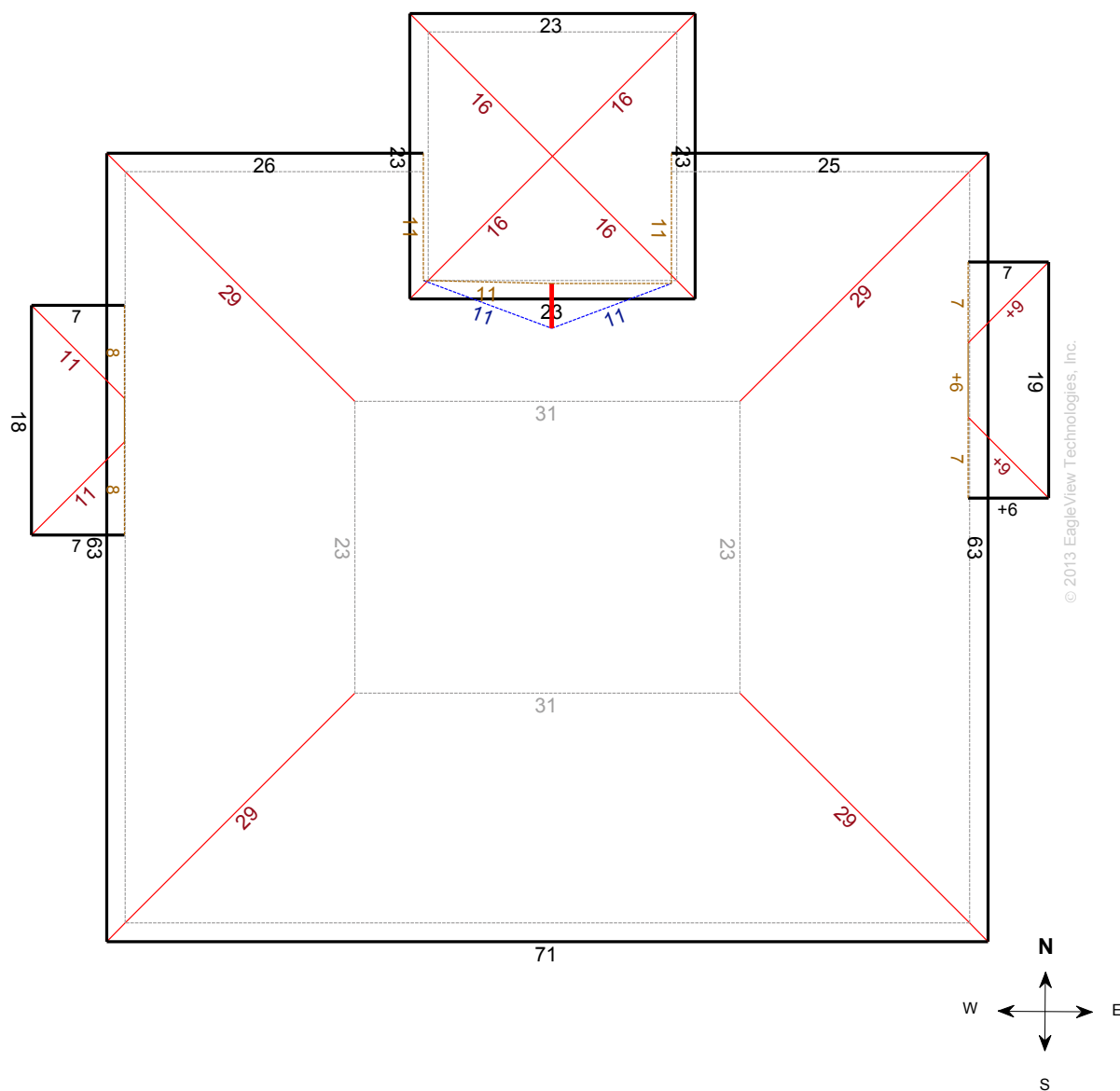


Report: 5668492  
Claim: Russell School

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**Length Diagram**

Total Line Lengths:

**Ridges = 4 ft****Hips = 237 ft****Valleys = 22 ft****Rakes = 0 ft****Eaves = 407 ft****Flashing = 10 ft****Step flashing = 76 ft****Parapets = 0 ft**

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**Note:** This diagram contains segment lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).

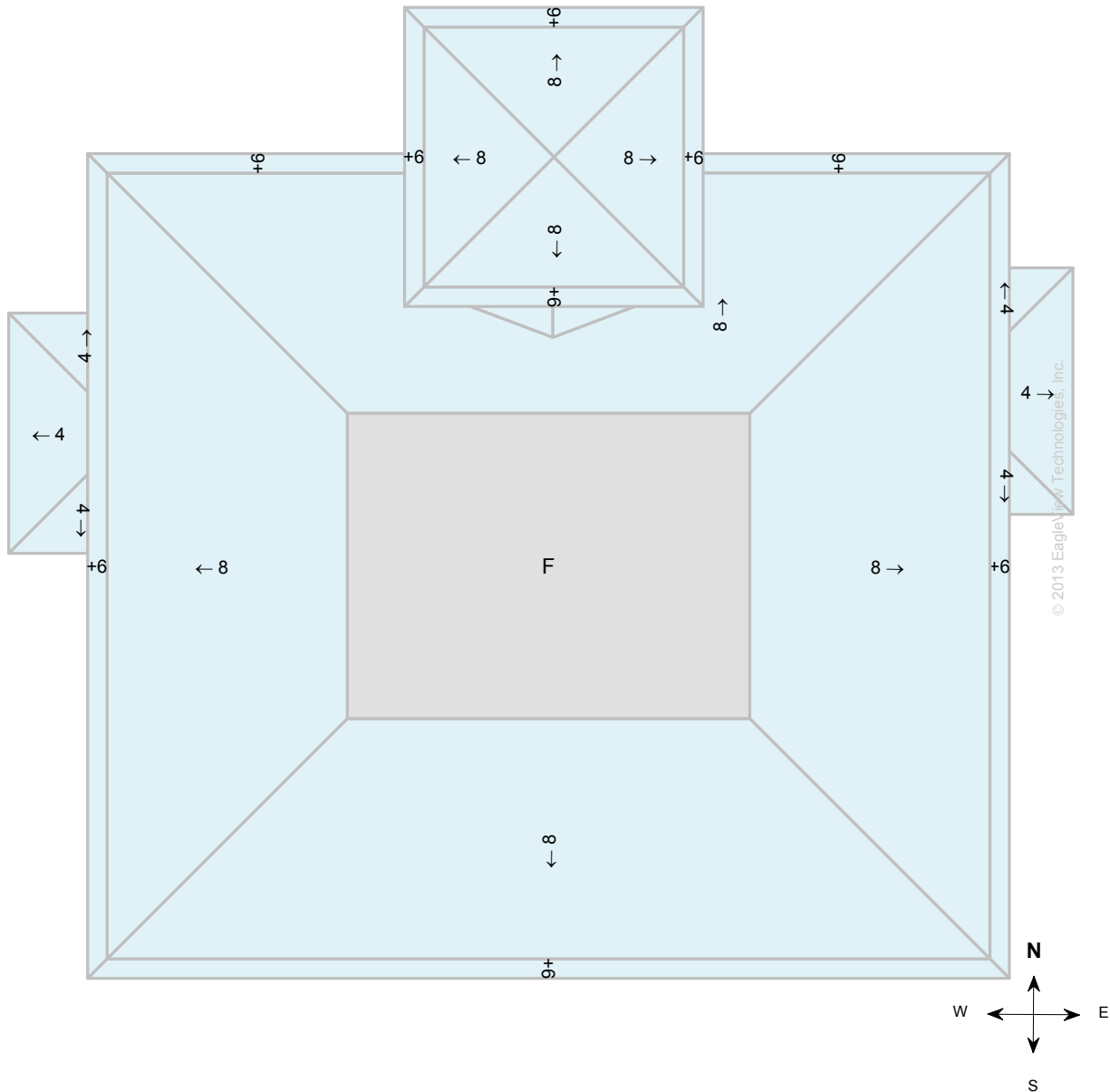


Report: 5668492  
Claim: Russell School

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## Pitch Diagram

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 8/12.



**Note:** This diagram contains labeled pitches for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Blue shading indicates a pitch of 3/12 and greater. Gray shading indicates flat, 1/12 or 2/12 pitches. If present, a value of "F" indicates a flat facet (no pitch).



Report: 5668492  
Claim: Russell School

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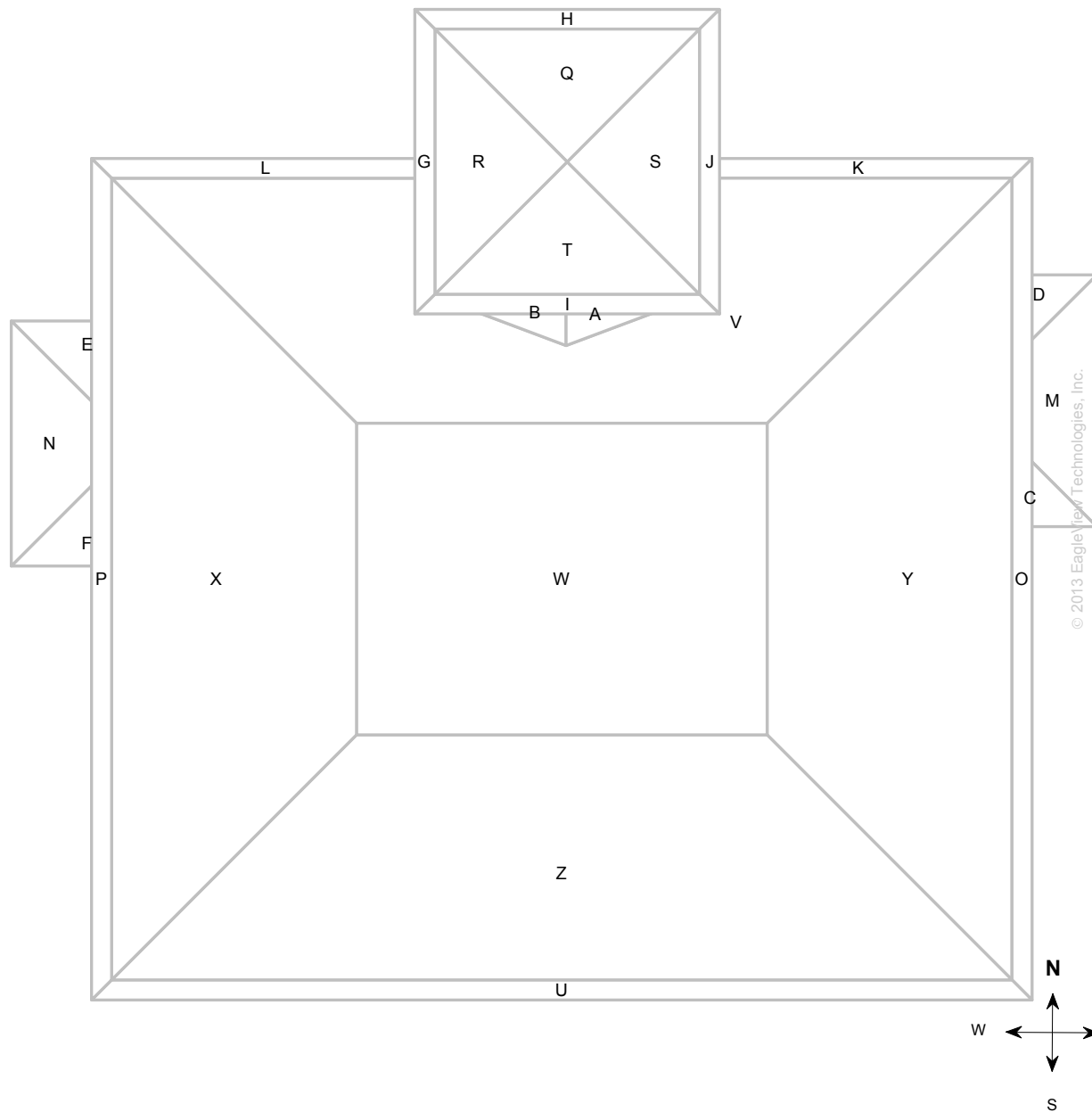
Total Area = 5,885 sq ft, with 26 facets.



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## Notes Diagram

Roof facets are labeled from smallest to largest (A to Z) for easy reference.



Report: 5668492  
Claim: Russell School

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## Penetrations Notes Diagram

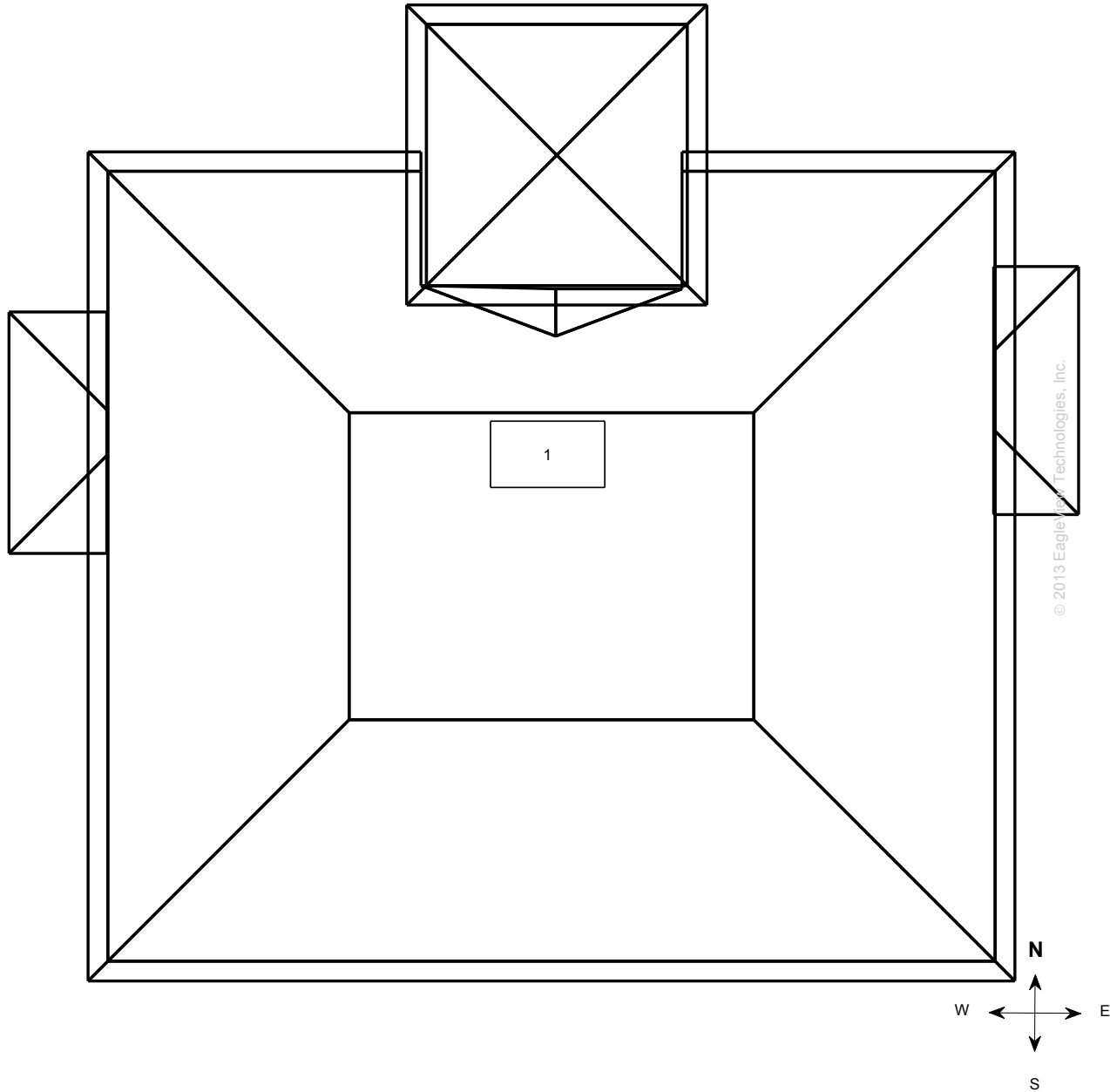
Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 1

Total Penetrations Perimeter = 28 ft

Total Penetrations Area = 45 sq ft

Total Roof Area Less Penetrations = 5,841 sq ft



Report: 5668492  
Claim: Russell  
School

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## Report Summary

Below is a measurement summary using the values presented in this report.

### Areas per Pitch

Roof Pitches	0/12	3/12	4/12	6/12	8/12
Area (sq ft)	728.5	37.4	276.4	552	4291.2
% of Roof	12.4%	0.6%	4.7%	9.4%	72.9%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

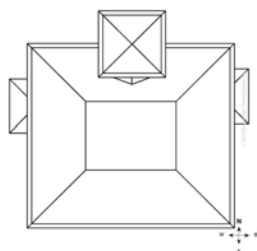
### Waste Calculation Table

Waste %	0%	10%	12%	15%	17%	20%	22%
Area (sq ft)	5,885	6,475	6,592	6,769	6,887	7,063	7,181
Squares	58.9	64.7	65.9	67.7	68.9	70.6	71.8

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The waste factor is subject to the complexity of the roof, individual roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Ridge, hip, valley, and starter lengths may require additional material.

Penetrations	1								
Area (sq ft)	44.4								
Perimeter (ft)	27.8								

Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.



Total Roof Facets = 26  
Total Penetrations = 1

### Lengths, Areas and Pitches

Ridges = 4 ft (1 Ridges)  
Hips = 237 ft (20 Hips).  
Valleys = 22 ft (2 Valleys)  
Rakes\* = 0 ft (0 Rakes)  
Eaves/Starter\*\* = 407 ft (15 Eaves)  
Drip Edge (Eaves + Rakes) = 407 ft (15 Lengths)  
Parapet Walls = 0 (0 Lengths).  
Flashing = 10 ft (2 Lengths)  
Step flashing = 76 ft (10 Lengths)  
Total Area = 5,886 sq ft  
Total Penetrations Area = 45 sq ft  
Total Roof Area Less Penetrations = 5,841 sq ft  
Total Penetrations Perimeter = 28 ft  
Predominant Pitch = 8/12

### Property Location

Longitude = -72.5896551  
Latitude = 42.3418120

### Notes

This was ordered as a commercial property. It was reported to be single structure. There were no changes to the structure in the past four years.

- \* Rakes are defined as roof edges that are sloped (not level).  
\*\* Eaves are defined as roof edges that are not sloped and level.



Report: 5668492  
Claim: Russell School

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## HADLEY TOWN HALL

### **TABLE OF CONTENTS**

#### Conditions Assessment

- Executive Summary
- Introduction
- Exterior Components
- Interior Finishes
- Prioritization of Tasks
- Detailed Estimate of Costs
- References

#### Addenda

- Addendum A – Drawings
- Addendum B – Schedules
- Addendum C – Roof Report

## **CONDITIONS ASSESSMENT**

### **EXECUTIVE SUMMARY**

The building exterior of Hadley Town Hall is in well maintained condition. Aside from some minor exterior repairs, routine maintenance like painting the railings and pointing the capstones is all that is required to maintain the integrity and prolong the service life of the building's exterior materials and components.

Considering the continuous use of the building interior as town offices, the interior finish systems are generally in very serviceable condition. The resilient flooring is worn, discolored, mismatched, chipped and cracked in isolated locations but remains well-adhered to the sub-floor and is nonfriable. It is performing well and is in very serviceable condition. Wall paneling needs only minor repairs except for a few isolated locations where work has been performed on the underlying walls. Ceiling and floor trim is missing or has been replaced in a few isolated locations. Wholesale replacement of the wall paneling is not recommended because it is performing well and is in good serviceable condition. Hardware needs only routine maintenance and doors are in excellent condition.

The Town of Hadley should develop a Phased Interior Renovation Plan that will guide it in future renovations when the finish systems fail and funds become available.

Estimate of costs for non-routine maintenance repairs are as follows:

<i>Repoint Foundation</i>	\$1,320
<i>Parge Coat Foundation</i>	\$7,410
<i>Weatherstrip Windows and Doors</i>	\$6,312
<i>Replace Cellar Windows</i>	\$3,168
<i>Miscellaneous (Welding, Concrete and Mortar Repairs, Windows)</i>	\$2,790
<i>Contingency</i>	\$2,100
<i>Total:</i>	<b><u>\$23,100</u></b>

### **INTRODUCTION**

This conditions assessment of exterior components and interior finishes of historic Hadley Town Hall was undertaken for the Hadley Historical Commission. The exterior components include exterior doors and windows for improving energy efficiency, the exterior foundation for general condition assessment and recommendations, and exterior guard rails and handrails for soundness and serviceability. Interior flooring, wall paneling, and doors and hardware were reviewed for soundness and serviceability.

Town Hall has an active history of interior and exterior renovations. The building was erected as a single-story town hall in 1840. It was designed by a local architect, Thomas Pratt, in the Greek Revival style. The Town had outgrown the space by 1902 and the decision was taken to add a second floor within the structure. Among other things this required excavation of the cellar for structural purposes and reconfiguration of the building facades. A major interior renovation was

undertaken in 1967/8 which reconfigured the interior partition layout and provided new interior finishes. Based on drawings dated 1967 by the architect Thomas Kirley received from the Town and site observations performed in January of this year, the interior finishes reviewed in this conditions assessment date from the 1967/8 interior renovation (or later).

At the time of this writing, no technical documentation has been found or is known to exist on the exterior renovations done in 1902 or later and no historical data or original materials are known to exist with which to reconstruct an historic interior. This report assumes that the present exterior steps were originally added to the building after 1902 and before 1967, then later reworked and that the accessible ramp was added circa 1990 (or later) when the Americans with Disabilities Act was first enacted. While the building exterior is a contributing structure to the Hadley Center National Historic District, the building interiors have no such designation. The Hadley Historical Commission is aware that the interior finishes of Town Hall are neither historic nor significant as defined by the Secretary of the Interior's historic preservation standards.

The purpose of this report is to assess the serviceable condition of the existing finishes and components and, if appropriate, make recommendations for their repair or replacement. Recommendations are based on in-kind replacements. Building code and accessibility compliance reviews are not in the scope of this report.

## **EXTERIOR COMPONENTS**

### **EXTERIOR FOUNDATION**

The exterior portion of Town Hall's foundation appears to be Pelham or Monson Gneiss, a stone quarried locally. It also appears to be the same stone used in the foundations of North Hadley Village Hall and Russell School. The stone is used on all four sides of the building but is largely obscured by an accessible ramp on the East Elevation and newer steps on the South Elevation. The stone would have typically been used decoratively and as a protective buffer between the weather and the structural brick back-up of the foundation. At some point after the 1902 renovation, the original steps and flooring of the West porch (probably made from the same stone) were replaced with the present-day concrete.

The stone appears to be in excellent condition- it is flush and plumb and the surface is solid. Mortar joints between the stone slabs appear to be a Portland cement-type and would not have been original to the 1840 construction. The joints are generally sound and tight. There is little mortar loss, if any, from weathering and adhesion appears to be excellent with a few minor exceptions such as at windows. The concrete section of the west porch foundation is exhibiting the characteristics of weathering and age that are common when dissimilar materials and construction methods are joined together. There is some minor cracking and joint separation where the stone and concrete meet. The cause for deterioration is two-fold. Concrete and stone absorb water at different rates and expand and contract at different rates. Over time these minor differences compound and result in separation and cracking where they meet. Secondly, the original construction is modular in nature; it is made-up of distinct units which allows each to move (as with seasonal changes) without compromising the whole. When a monolithic material

such as concrete is used, it cannot accommodate natural movement and cracks from the minor stresses. Once cracks appear it is inevitable that water will penetrate the components. This exacerbates the condition greatly and accelerates the deterioration primarily through seasonal freeze-thaw cycles.

- **Recommendation #1**(*Figures 1-2*)- remove mortar at open joints where stone meets stone, stone meets concrete, and stone meets window frames using hand tools only to the deeper of twice the width of the joint or where solid mortar is reached. Repoint joints with mortar that matches the color, texture and strength properties of the existing mortar.

De-icing salt and water accumulation from rain and melting snow at the South steps of the West porch is being absorbed by the cement-based render coating at the base of the southern-most column. This is causing staining and cracking of the concrete. The condition is isolated and requires no remedial repairs; however, the use of sodium chloride de-icers should be substituted with a calcium chloride- type.

- **Recommendation #2** (*Figure 3*) - remove and replace render coat with a two-coat, cement-based pargeing system with epoxy resin binder.

The protective render coat at the plinth section of the West elevation temple front where the original steps were removed has exceeded its useful service life and is showing signs of wear and deterioration. It appears that, other than routine maintenance repairs, no remedial actions need be taken.

- **Recommendation #3** (*Figure 4*)- prepare the existing surface to receive a two-coat, cement-based pargeing system with epoxy resin binder.

A thru-crack has developed in the concrete beneath the west column of the south porch roof.

- **Recommendation #4** (*Figure 5*) - close and seal crack with an epoxy mortar and inject epoxy resin to bind the concrete sections together.

## WINDOWS AND DOORS

An assessment was conducted at Hadley Town Hall to determine the condition of existing windows and doors and their operation. Each window and door was inspected, noting the condition of top and bottom sash, glazing, hardware and their rope and pulley systems. In addition, the amount of air infiltration was rated as severe, moderate, light or none. There were several instances where testing the operation of the window was not possible because of the placement of files and the use of plastic film. Except for the basement sash, all window openings have aluminum storm windows.

Town Hall has seven types of windows, with the majority of the sash being eight-over-eight, single hung, operated by a rope pulley system. The sash were originally reworked during the 1902 building renovation and replaced, in part, during the 1967 renovation. (Original pre-1902 sash can still be seen in the attic.) The majority of the sash are made using mortise and tenon construction with wood pegs at rail and stile. All sash are single glazed. The sash frames need no repairs. The glazing is aged and needs re-glazing in places. Difficulties with opening and closing are a result of sash being painted shut from the outside.

Missing or broken locks cause much of the air infiltration. The windows are designed with meeting rails that are lapped. They pull together when locked, creating an airtight seal. There was minor air infiltration observed where locks were in good working order.

*Addendum B* gives a detailed assessment of each window and door with recommendations for their repair. Simple and inexpensive repairs would improve the operation of the windows and doors and lower air infiltration.

- **General Recommendations**
  - Remove plastic film covering all windows. The film traps moisture that can cause damage to the sash.
  - Repair glazing.
  - Establish a maintenance plan, including inspection of all windows each year.
  - Caulk exterior storm windows.
- **Recommendation #5-** install spring bronze weather stripping at jambs, top, bottom and meeting stiles at all operable windows.
- **Recommendation #6-** install bulb-type, jam-applied weather stripping and concealed door sweeps at exterior doors.

## RAILINGS

There are two types of steel railings at the building exterior: an open baluster-type of traditional design used at porches and steps and a simple, modern style used at the access ramp. Both types are painted black and are set into either a stone or concrete floor. The railings require routine maintenance. Two recommendations are: tighten bolts at brackets where they meet the building exterior; and, remove flaking paint and rust, spot prime and paint.

The cups in the concrete curbs that receive the vertical post at the access ramp have lost their mortar seal and are retaining water causing deterioration to the steel and concrete.

**Recommendation #7-** remove rust and loose debris from the posts and cups and grout with an epoxy-modified cement formed to shed water.

The bottom newel at the western handrail of the south porch has been repaired at least once and is again cracked.

**Recommendation #8\_**(Figure 6) - weld a new steel sleeve in place to join the pieces together, file smooth, prime and paint.

## **INTERIOR FINISHES**

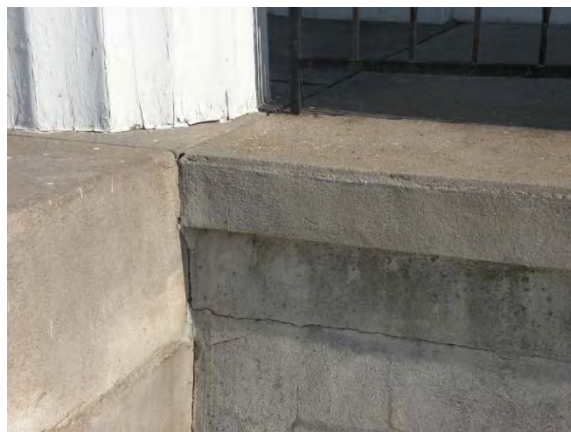
### FLOORING

Resilient tile is used throughout the interior. It appears old, is worn, has patched areas and unmatched styles but is in serviceable condition. It is performing very well. The tile is well-





*Figure 1- Southwest corner showing stone joint.*



*Figure 4- West Portico plinth parge coat.*



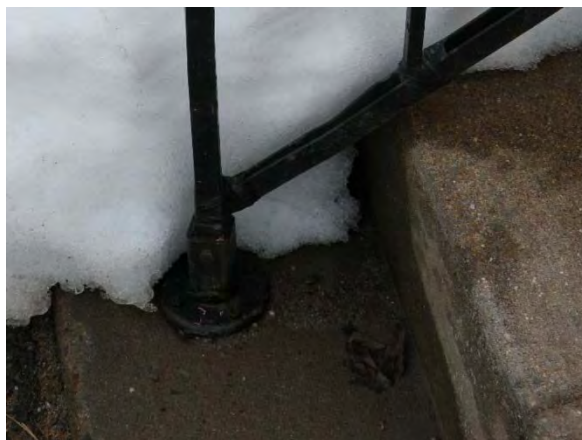
*Figure 2- West Portico showing separation of stone and concrete.*



*Figure 5- Crack at South Porch column.*



*Figure 3- West Portico deteriorated parge coat.*



*Figure 6- South Porch newel at handrail.*

adhered to the subfloor and has no areas that have been worn-through. The problems of repair are in isolated areas, in small amounts and are by no means pervasive. These include chips at corners, cracking, discoloration (probably as a result of floor treatments such as wax), holes, up-turned edges, and missing tiles in a few instances. Other than routine maintenance, no recommendations are necessary to keep the floor in service.

The 1967 Design Drawings specified asbestos tile. It is likely that some, if not all, have been replaced over the years. The tiles, as observed in February 2013, are solid and do not appear to be friable. Further investigation by an asbestos abatement specialist is required to make the final determination as to the presence and condition of any asbestos-containing materials in the floors.

### WALL PANELING

Thin-profile, floor-to-ceiling wood-grain plywood paneling is present in every room off the First and Second Floor corridors. It may be the original paneling selected for the 1967/8 renovation. It requires only maintenance-type repairs to keep it serviceable. The maintenance repairs needed are generally in partially-concealed locations in isolated rooms. The repairs needed include: patching holes where wall outlets were removed, re-working poorly executed repairs, touching-up scrapes and scratches, and re-installing missing wood base at the floor and cove moldings at the ceiling.

### INTERIOR DOORS AND HARDWARE

All of the offices on the First and Second Floors have good quality, solid-core flush wood doors in excellent condition. They appear to be original to the 1967/8 renovation. They are solidly attached to the frames with good quality, heavy-duty Soss butt hinges. Schlage brass lever handles appear to be replacements to comply with accessibility requirements. The mortise locks may be original to 1967/8. All of the hardware appears to be in good working order.

## **PRIORITIZATION OF TASKS**

The recommendations of this preservation plan have been prioritized according to criticality. Routine maintenance-type repairs should be considered part of a separate budget and are not included here. See the Detailed Estimates of Cost in *ADDENDUM D*. The actions recommended are grouped according and prioritized according to criticality:

### **INTERMEDIATE (Implementation in years 1 to 3)**

- Miscellaneous Repairs:
  - Weld hand rail- South Porch
  - Repair crack- South Porch
  - Repair/replace window hardware
  - Grout vertical posts at access ramp
  - Repair/replace glass and glazing
- Replace Cellar windows

## MID-RANGE (Implementation in years 4 to 6)

- Weatherstrip windows and doors
- Replace parging- West Porch
- Re-point foundation cap stones

## DETAILED ESTIMATE OF COSTS

Estimates of cost assume that all work is performed at prevailing wage rates in compliance with the Davis-Bacon Act (40 U.S.C. 3141-3148) and state regulations. Cost estimates include a general contractor's fee for overhead and profit, bonding, and the restrictive payment terms associated with certified payroll (aka "rate" work) of 20%. Architects' and engineers' fees are estimated as a separate line item (for funding purposes) and are included in the *TIMELINE*, Part 4. Estimates of cost are for work performed as specified in the *Recommendations* section, above. Refer to that section for a detailed understanding of what each line item cost includes.

<u>System</u> Task	Units	Price per Unit	Cost for Task	Sub-totals	Total \$23,100
<u>Foundation</u>				\$9,210	
Parge concrete foundation	95 SF	\$78/LF	\$7,410		
Repoint stone foundation, as needed	50 LF	\$26.40/LF	\$1,320		
Repair South Porch step	1 unit	\$480	\$480		
<u>Windows</u>				\$10,154	
Weatherstrip with spring bronze	29 units	\$204	\$5,916		
Replace cellar windows with new	3 units	\$1,056	\$3,168		
Re-glaze sash	1 unit	\$384	\$384		
Replace glass	2 units	\$48	\$96		
Repair/replace sash locks and pulleys	6 units	\$98.40	\$590		
<u>Doors</u>				\$396	
Weatherstrip 4 sides	3 units	\$132	\$396		
<u>Railings</u>				\$1,240	
Weld broken newel	1 unit	\$480	\$480		
Repair grout at access ramp	1 unit	\$633	\$760		
<u>Contingency</u>					
For unknown conditions	1 unit	10%	\$2,100	\$2,100	



## REFERENCES

Construction Drawings, Thomas Abbott Kirley AIA Architect, August 1, 1967 and January 15, 1968

*Renovation 1968*, The Town Hall Improvement Committee, 1968

*MHC Reconnaissance Survey Report Hadley*, Massachusetts Historical Commission, 1982.

*Form B – Building*, Massachusetts Historical Commission, 1985.

Letter to Board of Selectmen from Hadley Historical Commission dated January 25, 1999.

“Hadley Center Historic District,” National Register of Historic Places, Nominating document of multiple resource area (NRHP reference no. 1977-000185)

## **ADDENDA**

## **ADDENDUM A**

### **DRAWINGS**

C:\DOCUMENTS AND SETTINGS\JOHN SUGARMAN\MY DOCUMENTS\JOBS\PROPOSALS\HADLEY\DRAWINGS\TOWN\TOWNREPAIRS.DWG, MAR, 22, 2013 - 11:42AM, ,

KEY NOTES

- ① RE—POINT
- ② CLEAN STONE
- ③ REMOVE AND REPLACE PARGE COAT
- ④ FURNISH AND INSTALL PARGE COAT
- ⑤ PERFORM WELD REPAIR AT BOTTOM NEWEL. RESET RAILING IN CONCRETE AS REQUIRED.
- ⑥ REPAIR CONCRETE CRACK AT BASE OF WOOD POST WITH EPOXY OR NON—SHRINK GROUT.
- ⑦ REPLACE EXISTING WOOD WINDOWS TO MATCH IN MATERIALS, STYLE AND DETAILS
- ⑧ RE—GLAZE WINDOW
- ⑨ REPLACE GLASS LIGHT
- ⑩ REPLACE/REPAIR WINDOW HARDWARE

GENERAL NOTES

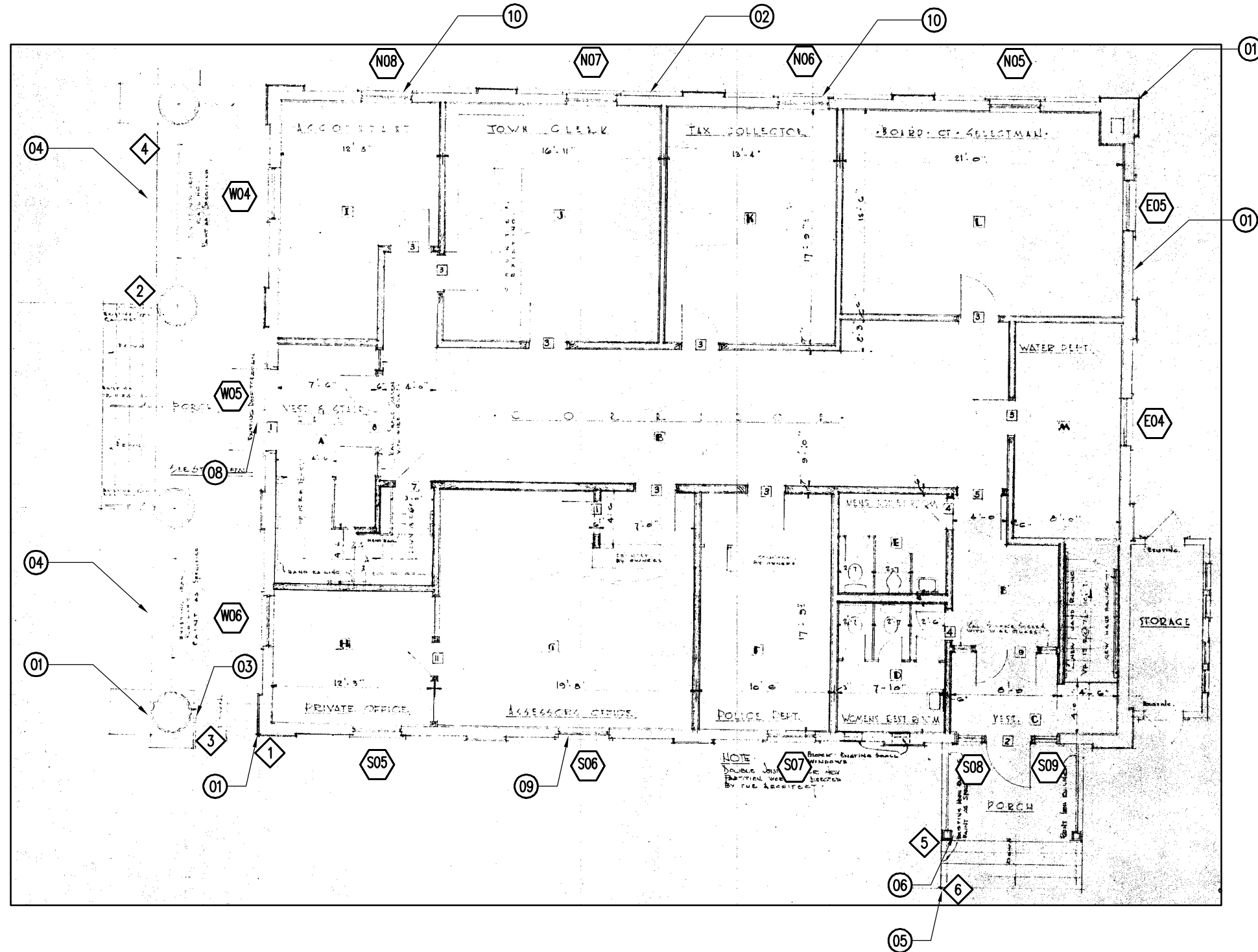
- 1. SCRAPE, PRIME AND PAINT ALL STEEL AND IRON GUARDRAILS, HANDRAILS, BRACKETS AND CONNECTORS.
- 2. FURNISH AND INSTALL SPRING BRONZE WEATHERSTRIPPING AT ALL FOUR SIDES AND MEETING RAILS AT ALL OPERABLE WINDOWS.
- 3. FURNISH AND INSTALL RUBBER COMPRESSION SEALS AND RECESSED DOOR SWEEPS AT ALL EXTERIOR DOORS.
- 4. REFER TO WINDOW AND DOOR SCHEDULES FOR ADDITIONAL INFORMATION.
- 5. TIGHTEN ALL RAILING TO WOOD CONNECTIONS.
- 6. EXTEND EXISTING ROOF DOWNSPOUTS TO DISCHARGE WATER A MINIMUM OF 5’ FROM BASE OF BUILDING.
- 7. RE—GROUT VERTICAL POSTS AT ACCESS RAMP.

SYMBOLS LEGEND

- Ⓢ KEY NOTE
- Ⓢ WINDOW NUMBER
- Ⓢ PHOTO KEY

Project	HADLEY TOWN HALL	Number	HTH-1
Description	BUILDING NOTES AND LEGENDS	Scale	NTS
Issue/Rev	1	Date	MARCH 12, 2013







## **ADDENDUM B**

### **SCHEDULES**

<b>WINDOW TYPES FOR: HADLEY TOWN HALL, 100 Middle Street, Hadley, MA</b>								
<b>DATE: 2/26/2013</b>								
<b>TYPE</b>	<b>TOTAL</b>	<b>DESCRIPTION</b>	<b>OPERATION</b>	<b>SASH SIZE (w x h)</b>		<b>GLASS SIZE (inches, w x h)</b>		<b>NOTES</b>
				<b>Top</b>	<b>Bottom</b>	<b>Top</b>	<b>Bottom</b>	
A	11	8/8, single hung, wood	Rope/Pulley	3'10"x2'10"	3'10"x2'10"	10x14	10x14	1 <sup>st</sup> floor sash are early sash. Mortise/Tenon construction with wood pegs at stile/rail
B	13	8/8, single hung, wood	Rope/Pulley	3'10"x2'10"	3'10"x2'10"	10x14	10x14	2 <sup>nd</sup> floor bottom sash are replacements dating from 1967 redesign of interior.
C	1	Pair, 6/6, single hung, wood	Rope/Pulley	2'6" x 2'9"	2'6"x10"	10x15	10x15	
D	1	Pair, 2 light, transom Sash	Fixed	3'3" x 1'7"	n/a	15x8	n/a	Transom above front door, seen only from exterior, covered by dropped ceiling inside.
E	2	3 light, sidelights for back door	Fixed	1'8" x 4'5"	n/a	17x16	n/a	
F	4	3 light, basement sash	Fixed	3' x 1'7"	n/a	12x14	n/a	
G	2	1 light, basement sash	Crank, awning	3' x 1'7"	n/a	36x14	n/a	Vinyl replacements



**WINDOW SCHEDULE FOR: Hadley Town Hall (cont.)**
**Page 2**
**CONDITIONS ASSESSMENT**

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash				Bottom Sash				NOTES
				Frame	Broken Muntin	Broken Light	Glazing	Frame	Broken Muntin	Broken Light	Glazing	
W1	#201 Acct. Office	B	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Plastic Film on window; unable to check operation; broken lock Air Infiltration: severe
W2 a	2 <sup>nd</sup> Floor Hall	C	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Operable Air Infiltration: moderate
W2 b	2 <sup>nd</sup> Floor Hall	C	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Operable Air Infiltration: moderate
W3	#202 Health Dept.	B	Repair	Very Good	No	No	Good	Very Good	No	No	Very Good	Operable; broken lock Air Infiltration: severe
W4	#101	A	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Operable Air Infiltration: moderate
W5	1 <sup>st</sup> Fl Trans.	D	Repair	Good	No	No	Fair	n/a	n/a	n/a	n/a	Needs reglazing
W6	#102 Asses.	A	Repair	Very Good	No	No	Very Good	Very Good	No	No	Very Good	Painted Shut Air Infiltration: light
S1	#202 Health Dept.	B	Repair	Very Good	No	No	Fair	Very Good	No	No	Fair	Operable; lock in good working order Air Infiltration: light
S2	#204 Treas. Office	B	Repair	Very Good	No	No	Good	Very Good	No	No	Fair	Operable; lock in good working order Air Filtration: none
S3	#204 File Room	B	Files in front of window – no access									
S4	2 <sup>nd</sup> Floor Ladies Room	B	Repair	Very Good	No	No	Fair	Very Good	No	No	Fair	Operable; sash loose in frame causing sash to shift Lock in good working order Air Infiltration: none
S5	#102 Asses.	A	Repair	Very Good	No	No	Fair	Very Good	No	No	Fair	Bottom sash is loose in frame; Air infiltration: severe; using putty to stop draft
S6	#102 Asses.	A	Repair	Very Good	No	1	Good	Very Good	No	No	Good	Operable; lock in good working order Air infiltration: none Top Sash: 1 broken light

**WINDOW SCHEDULE FOR: Hadley Town Hall (cont.)**
**Page 3**
**CONDITIONS ASSESSMENT**

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash				Bottom Sash				NOTES
				Frame	Broken Muntin	Broken Light	Glazing	Frame	Broken Muntin	Broken Light	Glazing	
S7	#104	A	Repair	Very Good	No	No	Fair	Very Good	No	No	Fair	Difficult to access to check operation. Locked. Air infiltration: light
S8	Back Door Sides	E	n/a	Very Good	No	No	Very Good	n/a	n/a	n/a	n/a	
S9	Back Door Sides	E	n/a	Very Good	No	No	Very Good	n/a	n/a	n/a	n/a	S9
S10	Cellar	F	Replace	Fair	No	No	Poor	n/a	n/a	n/a	n/a	Older cellar sash; frame is separating at rail/stile joint. Replace in kind.
S11	Cellar	F	Replace	Fair	No	No	Poor	n/a	n/a	n/a	n/a	Same as above
E1	2 <sup>nd</sup> Floor Back Stair	B	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Too high to operate. Air infiltration: light to moderate
E2	#206 Vet. Service	B	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Unable to open lock. Air infiltration: light Rope/pulley replaced with tube/channel
E3	#205 Treas. Off.	B	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Operable; Lock in good working order Air infiltration: none
E4	#106 Select	A	Repair	Very Good	No	N O	Fair	Very Good	No	No	Fair	Painted shut; lock in good working order Air infiltration: none
E5	#107 Admin	A	Repair	Very Good	No	No	Fair	Very Good	No	No	Fair	Operable; lock in good working order Air infiltration: light
N1	#205 Treas. Office	B	Repair	Very Good	No	No	Fair	Very Good	No	No	Good	Plastic Film covering window; lock was not locked Air infiltration: moderate
N2	#205 Treas. Office	B	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Plastic Film covering window; top slipping down; ½ lock missing; broken cord Air infiltration: severe
N3	#203 Meetg Room	B	Repair	Very good	1	No	Good	Very Good	No	No	Very Good	Operable; lock in good working order Bottom Sash: Repair muntin Air infiltration: none

**WINDOW SCHEDULE FOR: Hadley Town Hall (cont.)****Page 4****CONDITIONS ASSESSMENT**

NUMBER	LOCATION	TYPE	REPAIR OR REPLACE	Top Sash				Bottom Sash				NOTES
				Frame	Broken Muntin	Broken Light	Glazing	Frame	Broken Muntin	Broken Light	Glazing	
N4	#201 Acct.	B	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Plastic film covering window; Air infiltration: light
N5	#107	A	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Operable; sash do meet properly; unable to lock Air infiltration: moderate
N6	#105 Town Clerk	A	Repair	Very Good	1	No	Fair	Good	No	No	Fair	Operable; sash do meet properly; Broken Cord; Top Sash: repair muntin Air infiltration: severe
N7	#103	A	Repair	Very Good	No	No	Good	Very Good	No	No	Good	Operable Air infiltration: moderate
N8	#101	A	Repair	Very Good	No	No	Very Good	Very Good	No	No	Good	Operable but difficult Air infiltration: moderate No lock
N9	Cellar	F	Replace	Fair	No	No	Poor	n/a	n/a	n/a	n/a	Older cellar sash; frame is separating at rail/stile joint. Replace in kind.
N10	Cellar	G	n/a	Good	No	No	Good	n/a	n/a	n/a	n/a	Vinyl replacement Sash
N11	Cellar	G	n/a	Good	No	No	Good	n/a	n/a	n/a	n/a	Vinyl replacement Sash

**DOOR SCHEDULE FOR:** Hadley Town Hall, 100 Middle Street, Hadley, MA  
**DATE:** 2/26/2013

**CONDITIONS ASSESSMENT**

<b>TYPE</b>	<b>TOTAL</b>	<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>	<b>DIMENSIONS (w x ht x th)</b>	<b>HARDWARE</b>	<b>NOTES</b>
A	1	W1	Double Sash Door; 4 panels	West Facing Façade	3'4" x 7'6" x 1½"	Push bar with exterior thumb latch	One of 2 main public entrances. Very good condition. Recommend weather stripping.
B	1	S2	Single Door; 6 panels	South Elevation	3'5" x 6'10" x 1½"	Push bar with exterior pull	Side entry. Very good condition. Lots of air infiltration. Does not always close tight and is subject to being pushed open when hall door is open. Recommend weather stripping and hardware adjustment.

**ADDENDUM C**

**ROOF REPORT**

# Aerial Measurement Report

Prepared by Olde Mohawk Masonry & Historic Restoration

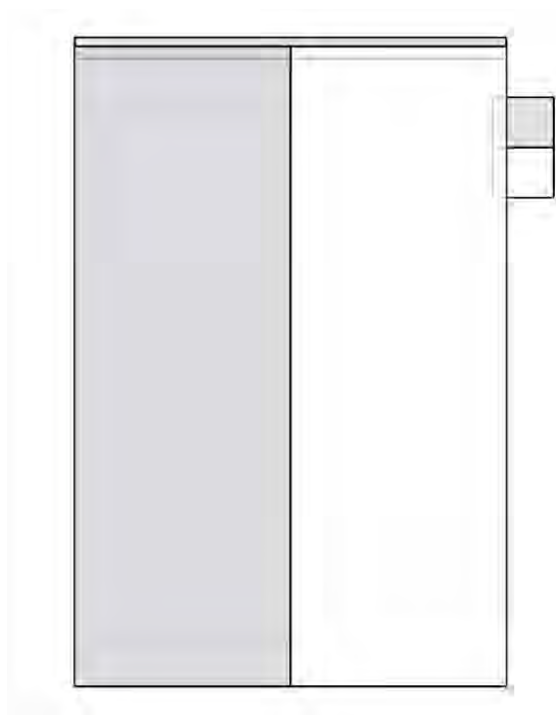


100 Middle St, Hadley, MA 01035-9429



Olde Mohawk Masonry & Historic Restoration  
PO Box 9268  
Niskayuna, NY 12309

Ward Hamilton  
tel. 877.622.8973  
email: [OldeMohawkInc@gmail.com](mailto:OldeMohawkInc@gmail.com)  
[OldeMohawk.com](http://OldeMohawk.com)

**100 Middle St, Hadley, MA 01035-9429**

In this 3D model, facets appear as semi-transparent to reveal overhangs.

**Report Details**

Report:5668491  
Claim: Hadley Town Hall

**Roof Details**

Total Roof Area =4,554 sq ft  
Total Roof Facets =5  
Predominant Pitch =5/12  
Number of Stories >1  
Total Ridges/Hips =85 ft  
Total Valleys =0 ft  
Total Rakes =131 ft  
Total Eaves =221 ft  
Total Penetrations =1  
Total Penetrations Perimeter = 8 ft  
Total Penetrations Area = 4 sq ft

**Report Contents**

Images. ....2  
Length Diagram.....5  
Pitch Diagram.....6  
Area Diagram. ....7  
Notes Diagram .....8  
Penetrations Diagram .....9  
Report Summary.....10  
Additional Property Information ....12

Contact: Ward Hamilton  
Company: Olde Mohawk Masonry & Historic  
Restoration  
Address: 1174 Van Antwerp Road  
Niskayuna, NY 12309  
Phone: 781-686-6999

Measurements provided by [www.eagleview.com](http://www.eagleview.com)



**Certified Accurate**

[www.eagleview.com/Guarantee.aspx](http://www.eagleview.com/Guarantee.aspx)

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## Images

The following aerial images show different angles of this structure for your reference.

Top View



Report: 5668491  
Claim: Hadley Town  
Hall

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North Side



South Side



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Claim: Hadley Town  
Hall

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East Side



West Side

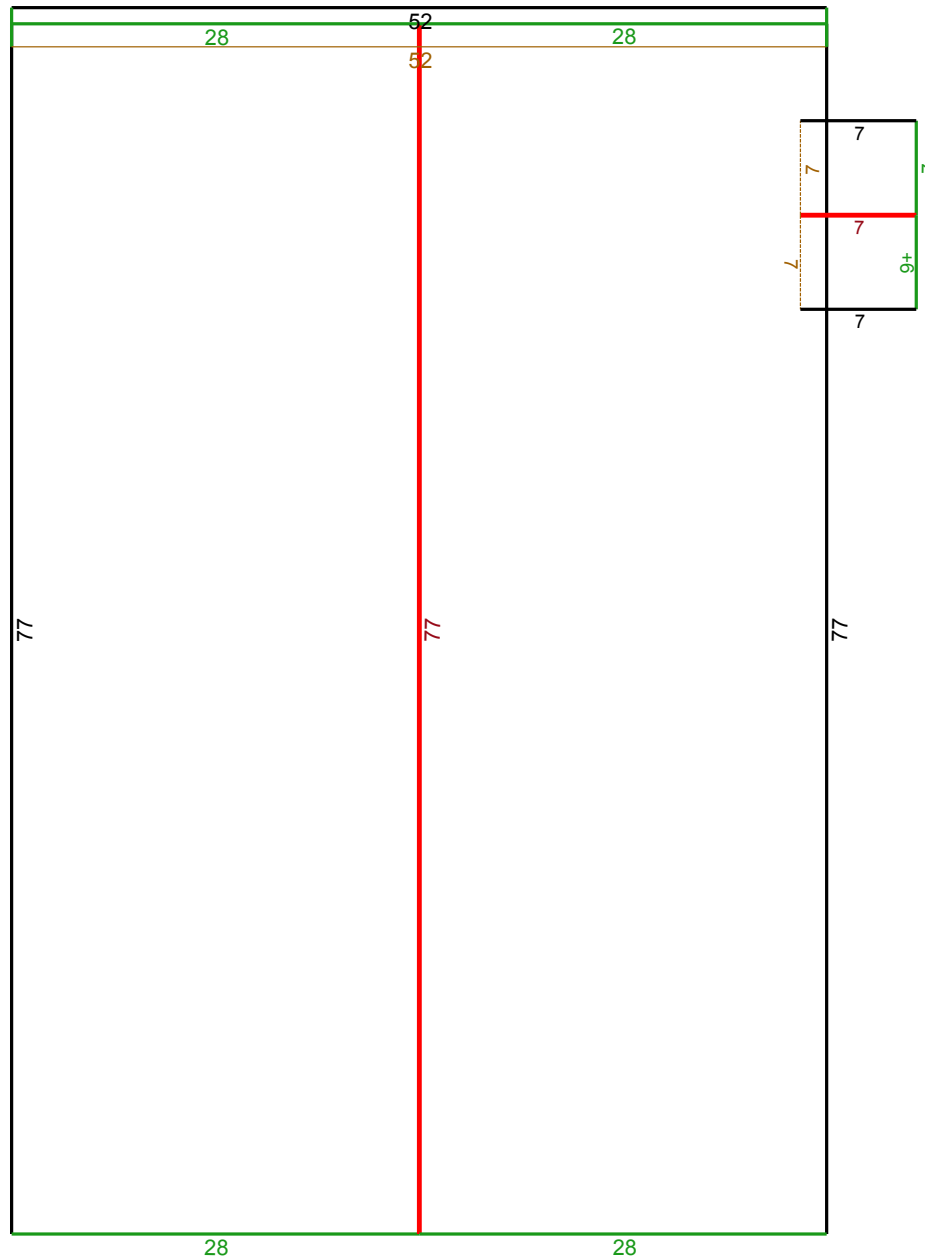


Report: 5668491  
Claim: Hadley Town  
Hall

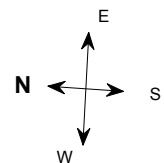
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**Length Diagram**

Total Line Lengths:

**Ridges = 85 ft****Hips = 0 ft****Valleys = 0 ft****Rakes = 131 ft****Eaves = 221 ft****Flashing = 52 ft****Step flashing = 13 ft****Parapets = 0 ft**

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**Note:** This diagram contains segment lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).

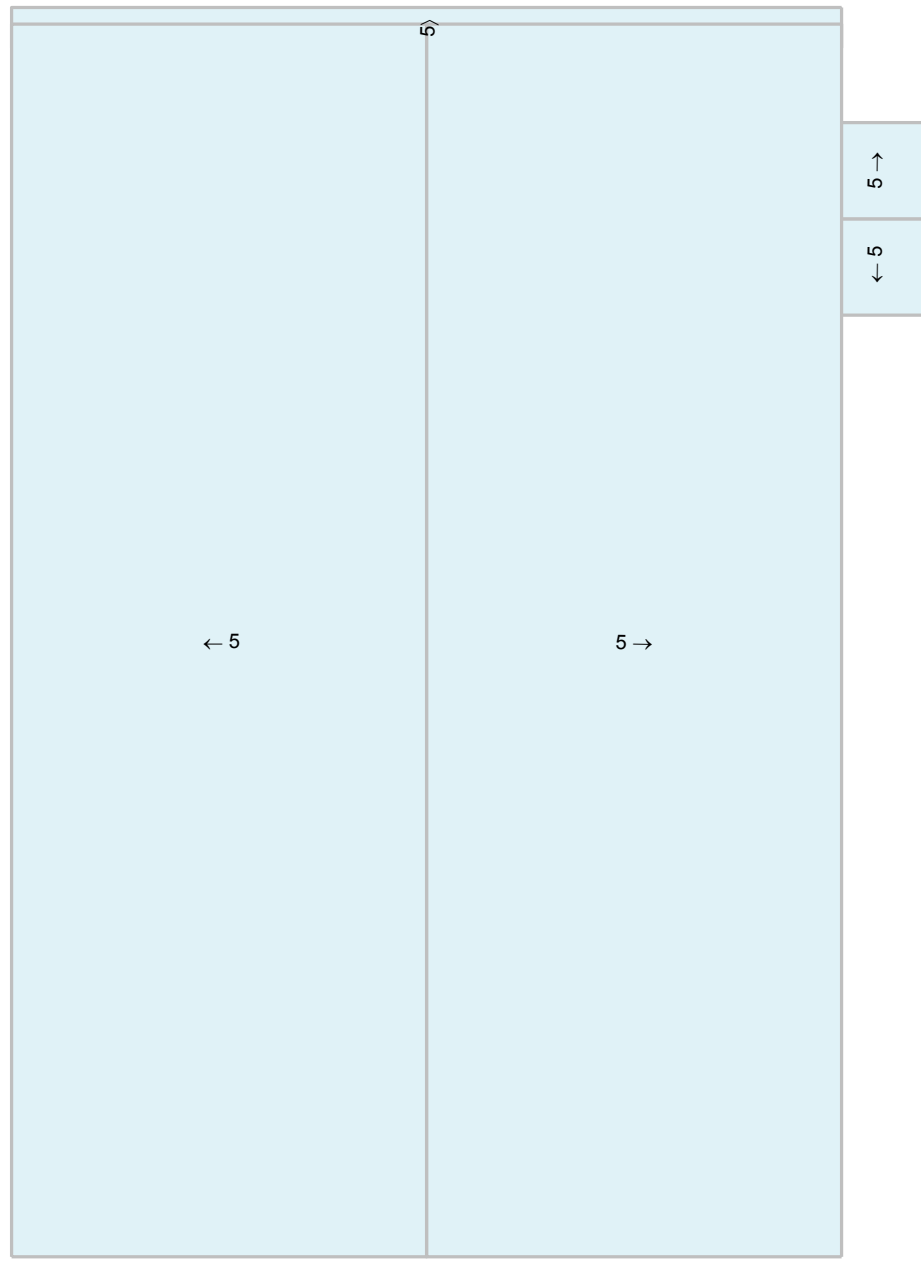


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Claim: Hadley Town  
Hall

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## Pitch Diagram

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 5/12.



**Note:** This diagram contains labeled pitches for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Blue shading indicates a pitch of 3/12 and greater.

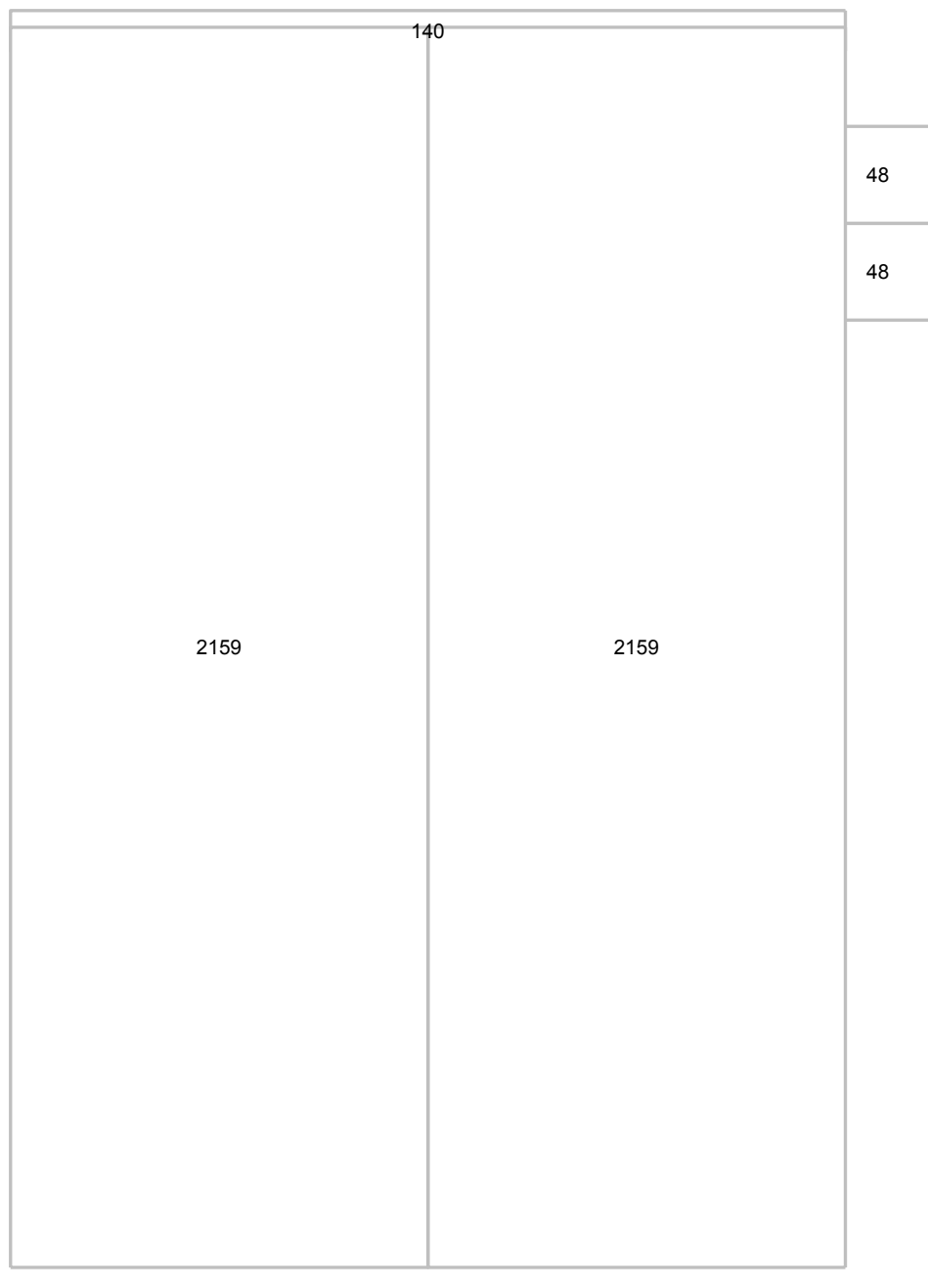


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Claim: Hadley Town  
Hall

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## Area Diagram

Total Area = 4,554 sq ft, with 5 facets.



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**Note:** This diagram shows the square feet of each roof facet (rounded to the nearest foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).

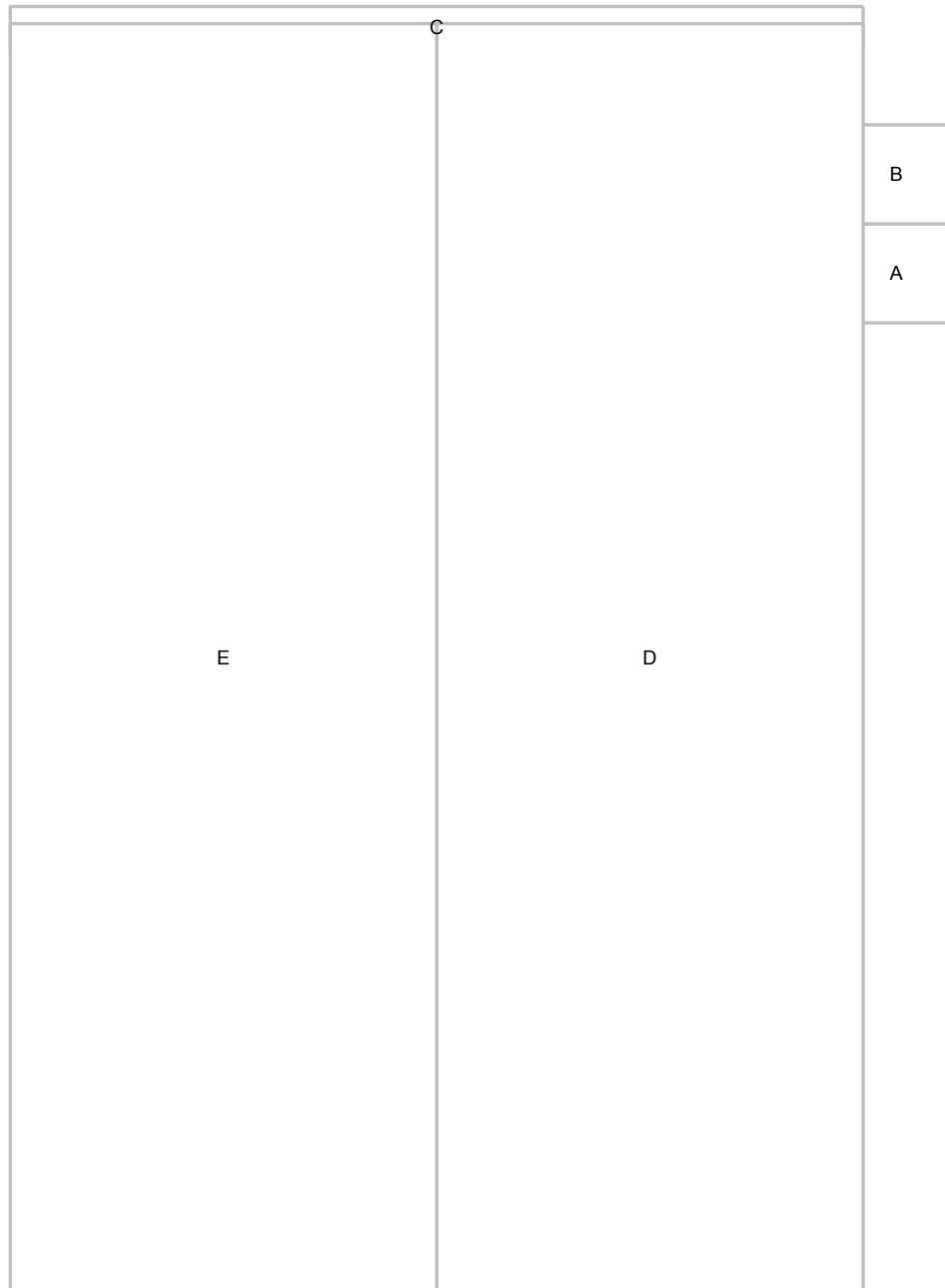


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Claim: Hadley Town  
Hall

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## Notes Diagram

Roof facets are labeled from smallest to largest (A to Z) for easy reference.



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Report: 5668491  
Claim: Hadley Town  
Hall

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## Penetrations Notes Diagram

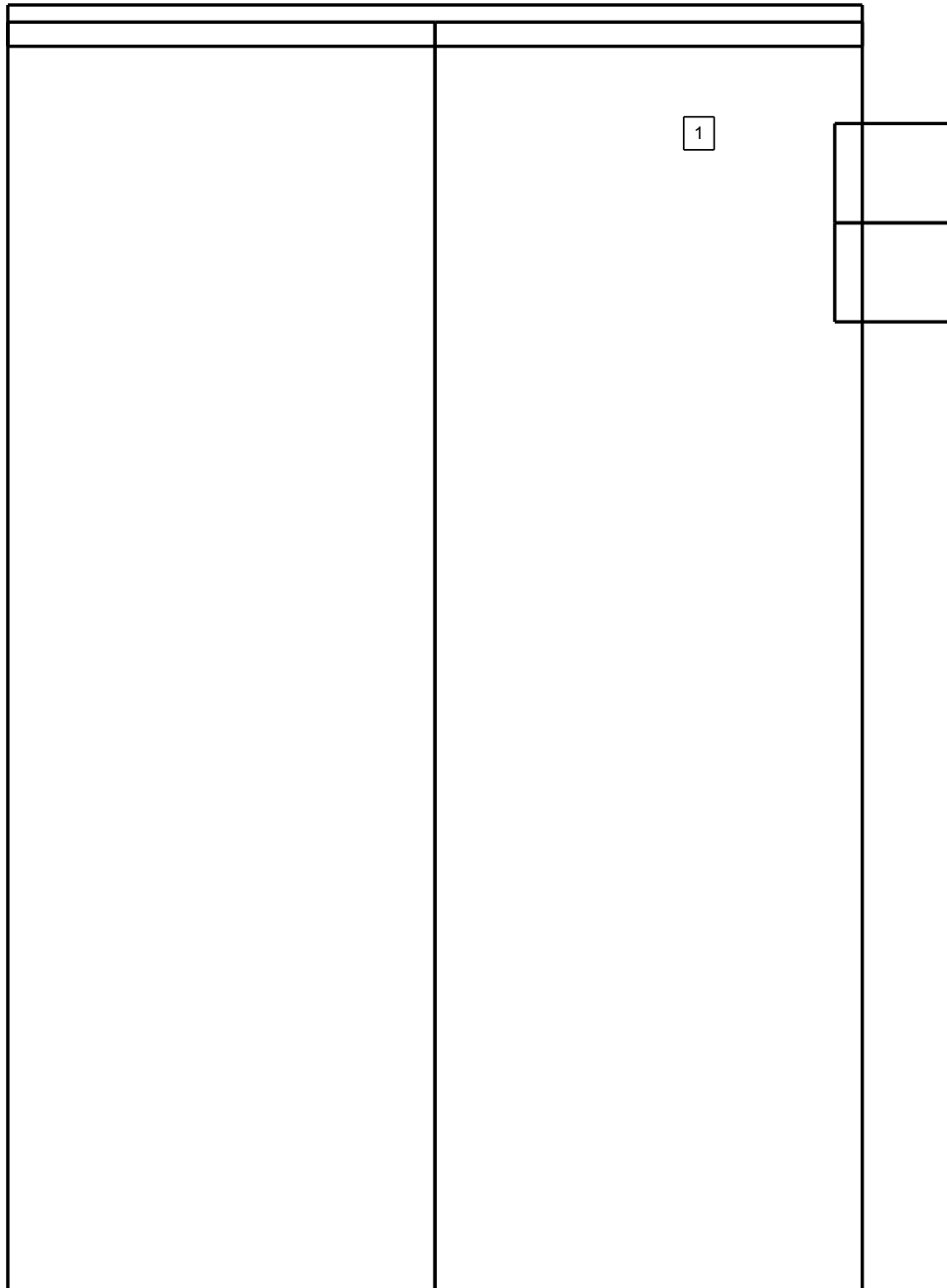
Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 1

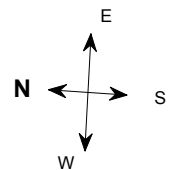
Total Penetrations Area = 4 sq ft

Total Penetrations Perimeter = 8 ft

Total Roof Area Less Penetrations = 4,550 sq ft



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Report: 5668491  
Claim: Hadley  
Town Hall

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## Report Summary

Below is a measurement summary using the values presented in this report.

### Areas per Pitch

<b>Roof Pitches</b>	5/12
<b>Area (sq ft)</b>	4553.9
<b>% of Roof</b>	100%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

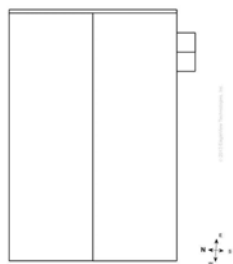
### Waste Calculation Table

Waste %	0%	10%	12%	15%	17%	20%	22%
<b>Area (sq ft)</b>	4,554	5,009	5,100	5,237	5,328	5,465	5,556
<b>Squares</b>	45.5	50.1	51.0	52.4	53.3	54.6	55.6

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The waste factor is subject to the complexity of the roof, individual roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Ridge, hip, valley, and starter lengths may require additional material.

<b>Penetrations</b>	1								
<b>Area (sq ft)</b>	4								
<b>Perimeter (ft)</b>	8								

Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.



Total Roof Facets = 5  
Total Penetrations = 1

### Lengths, Areas and Pitches

Ridges = 85 ft (2 Ridges)  
Hips = 0 ft (0 Hips).  
Valleys = 0 ft (0 Valleys)  
Rakes\* = 131 ft (8 Rakes)  
Eaves/Starter\*\* = 221 ft (5 Eaves)  
Drip Edge (Eaves + Rakes) = 352 ft (13 Lengths)  
Parapet Walls = 0 (0 Lengths).  
Flashing = 52 ft (1 Lengths)  
Step flashing = 13 ft (2 Lengths)  
Total Area = 4,554 sq ft  
Total Penetrations Area = 4 sq ft  
Total Roof Area Less Penetrations = 4,550 sq ft  
Total Penetrations Perimeter = 8 ft  
Predominant Pitch = 5/12

### Property Location

Longitude = -72.5885715  
Latitude = 42.3421094

### Notes

This was ordered as a commercial property. It was reported to be single structure. There were no changes to the structure in the past four years.

- \* Rakes are defined as roof edges that are sloped (not level).
- \*\* Eaves are defined as roof edges that are not sloped and level.



Report: 5668491  
Claim: Hadley Town  
Hall

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## **PART 3**

### **SOURCES OF FUNDING**

## HADLEY PRESERVATION PLAN – FUNDING

### INTRODUCTION

The total funding requirement for this preservation plan over its ten year span is \$1,498,242 for all three buildings. Professional Service fees will add approximately \$300,000 to the total funding requirement. As part of the Historic Buildings Preservation Plan, a list of funding sources that are potentially available for the preservation of the North Hadley Town Hall, Russell School and Hadley Town Hall is provided below. These funding sources target historic preservation as a uniquely important public good. The yearly Hadley Town budget is, of course, another source of funding; however many interests compete for these extremely limited resources.

The resources available to municipalities for the preservation of historic buildings are limited. Many private funding sources for historic preservation serve organizations with a non profit 501(c) 3 designation. Historic Preservation is local and any efforts to raise funds for the preservation of these very worthy structures should include a plan to increase public awareness of Historic Preservation. This will likely result in strong public support for the preservation of all the town's historic buildings. Local public support can lead to grass roots efforts to raise funds within the town's own population and local business community. We have included a separate section that speaks to this very important part of fundraising. See "Increasing Public Awareness of Historic Preservation".

### **The Certified Local Government Program (CLG)**

The Town of Hadley should also consider The Certified Local Government Program (CLG), which is sponsored by the National Park Service. The CLG program is a preservation partnership between local, state and national governments focused on promoting historic preservation at the grass roots level. The program is jointly administered by the National Park Service (NPS) and the State Historic Preservation Offices (SHPOs) in each state, with each local community working through a certification process to become recognized as a Certified Local Government (CLG). CLGs then become an active partner in the Federal Historic Preservation Program and the opportunities it provides. There are many reasons that are described in depth on their website, but the key reason is the access certification provides to the expert technical advice of the State Offices as well as the NPS. Partnerships with the National Alliance of Preservation Commissions, Preserve America, the National Trust for Historic Preservation, and the National Main Street Center are also networks that CLGs have an opportunity to tap into. **Access to Federal funding is another benefit, making certified communities able to access the portion of Federal funds set aside by each SHPO for just CLGs annually.** Being a CLG also shows your community's commitment to keeping what is significant from the past for future generations. As a certified town, city, or county seeking other opportunities, it becomes easy to demonstrate a readiness to take on a preservation project and be successful. For more information go to <http://www.nps.gov/history/hps/clg/index.htm>

Alternatively, the Town may elect to bond against future CPA revenues to finance public-purpose projects. The Community Preservation Act (MGL c. 44B, Section 11) provides that “a city or town ... may issue, from time to time, general obligation bonds or notes in anticipation of [CPA] revenues to be raised ... the proceeds of which shall be deposited in the Community Preservation Fund.” The benefits of bonding to complete CPA projects include:

- Larger, more expensive projects can be financed than if funded solely through the CPA funding cycle;
- Economies of scale can be achieved with the financial ability to restore an entire structure at once. The cost to specify and design nine separate projects is significantly greater than one or two. Similarly, the mobilization and other costs associated with project management are far more for nine projects than one or two;
- Rising labor and material costs are avoided;
- Future payments over the life of the bond are cheaper relative to the value of today’s dollar;
- Current, historically low interest rates make bonding highly advantageous; and,
- A portion of the annual revenue stream remains available for other worth projects

Numerous communities have utilized this tool to issue bonds against their future CPA revenue stream to fund projects with budgets that exceed annual CPA appropriations. The Massachusetts Department of Revenue maintains a database of all CPA projects, including bond-funded projects. As of March 2008, over 40 communities have issued bonds for 71 different CPA projects, raising roughly \$112 million through bonding.<sup>1</sup> If CPA is revoked at some point afterward, MGL c. 44B, Section 16(b) requires that the local surcharge remain in effect until all obligations incurred prior to revocation are fully discharged.

Currently, the Town of Hadley imposes a 3% property surcharge through the Community Preservation Act. This generates approximately \$200,000- \$300,000 in revenue annually. The Commonwealth of Massachusetts issues matching funds to all CPA communities annually. Hadley has accrued over \$1 million in CPA funds that are available for future projects, however, a portion of this funding is set aside for open spaces and housing.

We have provided elsewhere in this Preservation Plan a “Timeline for Phased Implementation of Recommendations”. There are 9 projects spread out over 10 years and range from \$6,000 to \$405,000. Each project has its own potential funding source. In this report we have provided a compilation of historic preservation grants that are currently available. These include State, Federal and Corporate Philanthropy Funds. We recommend contacting the potential resources directly for more detailed information. Website information has been provided. It is important to keep in mind that many of the funding resources may require a Town of Hadley Historic Preservation Plan before allocating funds.

We have divided the report into three sections:

<sup>1</sup> Community Preservation Coalition, “Bonding CPA Projects,” March 2008 newsletter  
[http://www.communitypreservation.org/enews/Bonding\\_CPA.htm](http://www.communitypreservation.org/enews/Bonding_CPA.htm)

- Historic Preservation Funding Resources that are immediately available (within 12 months) for high priority projects
- Historic Preservation Funding Resources that require at least a one-year lead time (2-10 years) for those projects that will be phased in according to priority
- Other Funding Sources that may be available

#### FUNDING RESOURCES IMMEDIATELY AVAILABLE (within 12 months)

These are funding sources that are immediately available for the highest priority projects.

PROJECT 01 – 2013 – NORTH HADLEY VILLAGE HALL - Cost: **\$6,600**

PROJECT 02 – 2013 – RUSSELL SCHOOL - Cost: **\$10,518**

PROJECT 03 – 2013 – HADLEY TOWN HALL - Cost: **\$23,100**

Applying for funding sources takes at least a one-year lead-time. The Town of Hadley currently has CPA money available for these projects. We recommend the use of the CPA funds for these high priority and urgent projects.

#### The Community Preservation Act (CPA)

The Community Preservation Act (CPA) is an innovative tool for communities to address important community needs and finance specific community preservation acquisitions and initiatives. Once adopted locally, the Act requires the legislative body to annually appropriate, or reserve for future appropriation, at least 10% of the estimated annual fund revenues for acquisitions or initiatives in each of the following three categories of allowable community preservation purposes: open space (excluding recreational uses), **historic resources**, and community housing. This allows the community flexibility in distributing the majority of the money for any of the three categories as determined by the community. For more information go to <http://commpres.env.state.ma.us/content/cpa.asp#>

#### FUNDING RESOURCES FOR REMAINING PHASES (2-10 years)

Funding resources will be needed for the remaining phases of the preservation plan. The amounts required for each building are as follows:

- Intermediate (1-3 years)
  - PROJECT 04 – 2014 – NORTH HADLEY VILLAGE HALL - Cost: **\$251,215**
  - PROJECT 05 – 2015 – RUSSELL SCHOOL - Cost: **\$252,421**
- Mid Range (4-6 years)
  - PROJECT 06 – 2017 – NORTH HADLEY VILLAGE HALL - Cost: **\$304,930**

- Long Term (7-10 years)
  - PROJECT 07 – 2019 – RUSSELL SCHOOL - Cost: **\$405,559**
  - PROJECT 08 – 2020 – NORTH HADLEY VILLAGE HALL - Cost: **\$73,168**
  - PROJECT 09 – 2022 – RUSSELL SCHOOL - Cost: **\$170,732**

The following is a compilation of resources that may be available for the remaining project phases. The most important of these is the Massachusetts Preservation Projects Fund (MPPF). The MPPF program is an important source of funding for municipalities. It is a 50% matching grant program and CPA money may be used as a match. Applications are generally due in March of each year and grants are awarded in June. Target completion date for a project is within one year. NOTE: Emergency funding is sometimes available throughout the year.

### **Massachusetts Preservation Projects Fund (MPPF)**

The Massachusetts Preservation Projects Fund (MPPF) is a state-funded 50% reimbursable matching grant program established in 1984 to support the preservation of properties, landscapes, and sites (cultural resources) listed in the State Register of Historic Places. **Applicants must be a municipality** or nonprofit organization. In 2012 (Round 18) the Massachusetts Historical Commission awarded \$780,000 dollars in MPPF grants. 21 recipients received grants for projects ranging from a Historic Structures Report for the Nichols House Museum to the restoration of a Historic Cemetery Entrance Gate for the Town of Brookfield. The town of Northbridge received \$60,000 over 2 rounds: 1. Development funds for window restoration, including specs. and drawings (Round 18, 2012) plus 2. Predevelopment funds for Northbridge Memorial Town Hall (Round 17, 2011). It is anticipated that **funding for Round 19 (2013) will be in the range of the previous round.**

The owner of a property funded for a development or acquisition project must enter into and record a **preservation restriction** and **maintenance agreement** in perpetuity. Owners of properties funded for pre-development projects shall enter into a preservation restriction for a term of years, depending on the grant amount awarded.

Historic cultural resources in public and nonprofit ownership and use frequently suffer from deferred maintenance, incompatible use, or are threatened by demolition. These important resources represent a significant portion of the Commonwealth's heritage. By providing assistance to historic cultural resources owned by nonprofit or municipal entities, the Massachusetts Historical Commission hopes to ensure their continued use and integrity.

- *Eligible Activities:*

Pre-development Projects: Requests may be submitted to conduct studies necessary to enable future development or protection of a State Register-listed property, such as feasibility studies involving the preparation of plans and specifications, historic structures reports, and certain archaeological investigations. With planning projects, the architectural/engineering fees to conduct such studies are eligible for funding. Costs associated with the project sign, photography, and legal ads are also eligible for

reimbursement.

Development Projects: Requests may be submitted for construction activities including stabilization, protection, rehabilitation, and restoration. Grant funding can only be used to cover costs of material and labor necessary to ensure the preservation, safety, and accessibility of historic cultural resources. Development of universal access is allowable as part of a larger project (ideally, no more than 30%). With construction or "bricks & mortar" projects, therefore, the architectural or engineering fees for any project work are not eligible for funding or use as matching share.

- *Allowable costs\**: Overall building preservation, building code compliance, and barrier-free access where historic fabric is directly involved are eligible as well as the cost of a project sign, photography, recording of the preservation restriction, and legal ads.

\*Please contact Grants Division staff to review your scope of work or individual work items if you are unsure about eligibility.

- *Non-allowable costs*: Projects consisting of routine maintenance, upgrading of mechanical systems (i.e., heating, ventilation, air conditioning, electrical, plumbing), renovation of non-historic spaces, moving of historic buildings, or construction of additions will not be considered. Architectural or engineering fees for any project work are not eligible for funding or use as matching share.

- *Amount of Request:*

The Massachusetts Preservation Projects Fund is currently funded for one grant round through fiscal year 2014. Requests for pre-development projects can range from \$5,000 to \$30,000; requests for development or acquisition projects may range from \$7,500 to \$100,000. Work completed prior to grant award is ineligible for funding consideration.

A unique feature of the program allows applicants to request up to 75% of total construction costs if there is a commitment to establish a **historic property maintenance fund** by setting aside an additional 25% over their matching share in a restricted endowment fund.

Emergency funds are available at the Secretary's discretion for stabilization of resources considered in imminent danger. There are no deadlines for the submission of emergency fund requests.

- *Selection Criteria:*

- Level of historical significance of the property
- Potential for loss or destruction of the property
- Administrative and financial management capabilities of the applicant
- Appropriateness of proposed work for the property
- Demonstrated financial need

- Extent of public support and benefit from users, professionals, and community leaders
- Consistency with state and local preservation and community revitalization plans
- Use of traditional materials and building techniques
- Geographic distribution and first-time grant for community/project

- *State Register Listing:*

The State Register of Historic Places is the official list of the state's cultural resources deserving preservation consideration. The State Register is a compilation of eight different types of local, state, and federal designations. The most common designations on the State Register are National Historic Landmarks, National Register properties, and local historic districts.

The largest single category on the State Register is from National Register nominations. The MHC can only accept National Register nominations from communities that have completed a comprehensive survey of their historic properties. National Register listing involves substantial lead-time and therefore procedures for nominating eligible unlisted properties should be implemented well ahead of the next grants cycle. Properties can be listed individually or as contributing elements of a National Register District. To find out if your community has a comprehensive survey or to initiate the process of evaluating a property for listing on the National Register, contact the Preservation Planning Division of the MHC.

Applicants should contact the Massachusetts Historical Commission or their local historical commission to ascertain State Register status of the property before applying for grant funds.

- *Preservation Restriction:*

The owner of a property funded for a development or acquisition project must enter into and record a **preservation restriction** and **maintenance agreement** in perpetuity. Owners of properties funded for pre-development projects shall enter into a preservation restriction for a term of years, depending on the grant amount awarded.

- *Project Agreement:*

All MPPF grant recipients are required to enter into a project agreement with the Massachusetts Historical Commission. The project agreement may include:

- MHC approved scope of work.
- A project schedule with targeted deadlines for the completion of various stages.
- An agreement that the grant recipient will erect a sign, indicating that it has received matching state funds.
- Scheduled site visits by MHC and final inspection upon completion of work.

- An assurance that required documentation will be submitted upon completion of a project. A Completion Report includes several documents and appendices including:
  - Comparative Budget
  - Public Benefit Statement
  - Narrative Report
  - Photographs
  - State Site Visit Comments
- Effort must be made to acquire bids from contractors that satisfy both the requirements of 950 CMR 73.07(e) and the quality assurance requirements. There are required procedure requirements for cities and towns and must be in compliance with M.G.L. Chapter 149, M.G.L. Chapter 30B, and M.G.L. Chapter 30-39M and work closely with MHC in developing the bidding and contractor qualification requirements.
- All work must be in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

While these requirements and documentations may appear intimidating, it is customary procedure for all grants and funding resources. Each resource will have its own standards for applications, agreements and completion reports and should be adhered to.

## NEA Our Town Grants

Of particular interest for historic preservation projects, the National Endowment for the Arts (NEA) has a program called "Our Town Grants," which "support creative place making projects that contribute toward the livability of communities and help transform them into lively, beautiful, and sustainable places with the arts at their core". Subject to the availability, grants range from \$25,000 to \$200,000. Find information about this program online at:

<http://arts.gov/grants/apply/OurTown/index.html>

## National Trust for Historic Preservation

The National Trust for Historic Preservation has several grant programs, which offer two types of assistance to nonprofit organizations and **public agencies**: 1) matching grants from \$500 to \$5,000 for **preservation planning and educational efforts**, and 2) intervention funds for **preservation emergencies**. Matching grant funds may be used to obtain professional expertise in areas such as architecture, archeology, engineering, preservation planning, land-use planning, fund raising, organizational development and law as well as to provide preservation education activities to educate the public.

The National Trust's web site, [preservationnation.org](http://preservationnation.org), also has a wealth of information about historic preservation issues, from weatherization to rural preservation. The Trust also has many helpful publications available through its online bookstore.

Download information about grants and application forms at:

<http://www.preservationnation.org/resources/find-funding/documents/preservation-funds-guidelines-eligibility.html>



## American Express Historic Preservation and Conservation Grants

Supported projects embrace the **preservation, restoration or sustainability of historic places** and demonstrate their significance to the community through one or more of the following:

- Restoring historic places to ensure ongoing public access and interaction with the sites.
- Preserving historic places for future or innovative use.
- Sustaining historic places by creating systems to manage increased visitor activities and environmental impacts.

Applications for archival projects are discouraged. For more information go to:

<http://about.americanexpress.com/csr/hpc.aspx>

## Felicia Fund

Funds projects primarily on the northeastern seaboard of the US which relate to architecture, art, decorative arts, **historic preservation**, conservation, and related educational pursuits. Initial requests for funding should be submitted with a concise statement of the proposed project and an estimate of the amount of funds to be requested. Ordinarily, Felicia Fund, Inc. will not make grants in excess of \$10,000. The fund will not fund operating expenses.

Address application to:      The Felicia Fund, Inc.  
   Pauline C. Metcalf  
   22 Parsonage Street  
   Providence, RI 02903  
   (no website)

## Massachusetts Department of Housing & Community Development

- **Economic Development Fund (EDF)**  
The Economic Development Fund, a component of the Massachusetts Community Development Block Grant Program, provides funding for projects that create and/or retain jobs, improve the local and/or regional tax base, or otherwise enhance the quality of life in the community. EDF gives priority to assistance for physical improvements and mixed-use projects supporting downtown and commercial center development.
- **Peer to Peer Technical Assistance Program**  
The Peer-To-Peer Technical Assistance Program provides small grants to municipalities for short-term problem solving or technical assistance projects.

For information on these programs go to: <http://www.mass.gov/hed/community/funding/>.

## OTHER FUNDING SOURCES THAT MAY BE AVAILABLE

A creative grant writer can often find ways to match funding sources to the needs of a client. There are many grants available for repurposing of historic structures for low income and elderly housing and other grants are available for economic development and educational programs. The resources listed below should also be explored.

If the town of Hadley decides to repurpose their historic buildings, there are many funding sources available, depending on the plan/need.

### **Hart Family Fund**

A preservation fund dedicated to communities with populations of 5,000 or less. Grants from this fund provide crucial support in “small town America,” often filling a philanthropic void that might not otherwise exist in these communities. To date grants from the Hart Family Fund for Small Towns have been awarded to nonprofits and public agencies in 22 states throughout the country. Grants from the Hart Family Fund for Small Towns generally range from \$2,500 to \$10,000 and are awarded for planning activities and education efforts focused on preservation. The fund provides seed money for preservation projects in small towns that help stimulate public discussion, enable local groups to gain technical expertise needed for particular projects, introduce the public to preservation concepts and techniques, and encourage additional fundraising for the project at the local level. Ineligible activities/expenses:

- Building or other construction activities
- Construction or other capital improvement costs

Operated within the framework of the National Trust for Historic Preservation's (NTHP) Preservation Services Fund (PSF) grants. Contact the Northeast Regional Office of the National Trust for Historic Preservation for more information, grant requirements, applications and deadlines. Northeast Regional Office, Seven Faneuil Hall Marketplace, Boston, MA 02109. Telephone 617-523-0883.

[http://www.preservationnation.org/resources/find-funding/special-funds/hart-fund.html -.UT9GP1fD9pg](http://www.preservationnation.org/resources/find-funding/special-funds/hart-fund.html-.UT9GP1fD9pg)

### **Massachusetts Department of Housing & Community Development**

- **Community Development Action Grant (CDAG)**

The Community Development Action Grant (CDAG) Program, which most recently has funded projects to support the production of workforce and affordable housing, has now been consolidated into the MassWorks Infrastructure Program, a new one-stop shop at EOHD for municipalities and other eligible applicants seeking public infrastructure funding to support these and other economic development projects.

- **Massachusetts Downtown Initiative (MDI)**

The primary mission of the Massachusetts Downtown Initiative is to make downtown revitalization an integral part of community development in cities and towns across the Commonwealth.

For information on the above programs, go to: <http://www.mass.gov/hed/community/funding/>.

### **MassWorks Infrastructure Program**

The MassWorks Infrastructure Program provides public infrastructure grants that will support community revitalization and sustainable development.

The MassWorks Infrastructure Program is administered by the Executive Office of Housing and Economic Development, in cooperation with the Department of Transportation and Executive

Office for Administration & Finance. More information is available at:

<http://www.mass.gov/hed/economic/eohed/pro/the-massworks-infrastructure-program.html>

### **Orton Family Foundation**

They are committed to helping towns steer and embrace growth and change while enhancing the cultural, social, environmental and economic qualities that are the essence of what makes a place a valued home to its citizens. The Foundation promotes inclusive, proactive decision-making and land use planning by offering guidance, tools, research, capital and other support to citizens and leaders. To achieve its Mission, the Orton Family Foundation partners with communities and organizations across the country to learn about and explore new models for citizen engagement, community visioning, implementation and stewardship.

This organization occasionally has **planning grants** available. Its website also has a wealth of useful information on innovative community development and planning initiatives.

<http://www.orton.org/>

### **Harriet Ford Dickenson Foundation**

The Harriet Ford Dickenson Foundation (no web page) makes grants for conservation and other purposes, primarily in New York and New England. Groups seeking funding should send a letter request at any time stating the amount of funding sought and the purposes for which it will be used. Send the letter to: Mr. James Largey, V.P., Harriet Ford Dickenson Foundation, c/o J.P. Morgan Chase Bank, N.A., 270 Park Ave., New York, NY 10006. Telephone: (212) 464-1937.

### **Easter Foundation**

The EASTER Foundation was created in the spring of 2006 by Fred and Anne Osborn of Garrison NY, with proceeds from the purchase by Colgate Palmolive of Tom's of Maine. The Osborn children decided to use the letters of the word EASTER to clarify the areas of focus for the foundation: Education, Arts, **Sustainability**, Technology, Environment and Rights. There is no formal application form or deadlines, but organizations seeking funding should write the Easter Foundation c/o Fred Osborn III, P O Box 347, Garrison, NY 10524-0347; no telephone calls please. <http://easterfoundation.org/>

## **PART 4**

### **Timeline for Phased Implementation of Recommendations**

## TIMELINE FOR PHASED IMPLEMENTATION OF RECOMMENDATIONS

This portion of the Historic Building Preservation Plan is a product of the *Sources of Funding* and *Prioritization of Tasks* sections described above. It indicates the timeline for phased implementation of all recommendations, identifying the applicable year, cost estimate and funding source (including, but not limited to Town Meeting, Community Preservation Fund, and specific state funding and grants programs). The plan is based on criticality and as each project relates and corresponds with potential funding sources. This is the road map for the Town to follow to successfully facilitate the preservation of Hadley Town Hall, Russell School and North Hadley Village Hall.

Funding Source Year 1: CPA//Funding Sources Year 2-10: CPA, MPPF, National, State, Corporate and Private Grant Programs as outlined in HPP-Funding Report.

### PROJECT 01 – 2013 – NORTH HADLEY VILLAGE HALL

Cost: **\$6,600**

Funding Source: CPA

*Immediate issue – Probe of possible foundation structural issues*

Task:

Remove and re-install foundation capstones for review and consult with a structural engineer.

### PROJECT 02 – 2013 – RUSSELL SCHOOL

Cost: **\$10,518**

Funding Source: CPA

*Immediate issues – Installation of tell-tale gauges at locations identified on the drawings to check for foundation movement, installation of temporary supports for West Porch roof and repair storm windows to protect woodwork from further damage.*

Tasks:

Replace missing glass of the storms, as needed.

Installation of tell-tale gauges.

Installation of two (2) temporary support columns at West Porch

### PROJECT 03 – 2013 – HADLEY TOWN HALL

Cost: **\$23,100**

Funding Source: CPA

*Non-routine maintenance – To prevent more expensive repairs and improve energy efficiency.*

Tasks:

Repoint Foundation

Parge Coat Foundation

Weatherstrip Windows and Doors

Replace Cellar Windows

Miscellaneous (Welding, Concrete and Mortar Repairs, Windows)

PROJECT 04 – 2014 – NORTH HADLEY VILLAGE HALL

Cost: **\$251,215**

Funding Source: CPA, MPPF, NEA, NTHP

*Roofing and gutters – All work related to replacing existing roof to stop damage to building exterior.*

Tasks:

Replace sheet metal roof with new standing seam roofing.

Sheet metal roofing over the cornice to be replaced, one unit price.

Reroof with new, flat-lock copper detail to shed water, one unit price.

Replace asphalt shingle roofing with new asphalt shingles.

Install new copper gutters and accessories.

Install new copper conductor pipes and accessories.

Replace flat roof over front entry with EPDM.

Repoint chimneys, price includes set-up to access each.

Replacement of rotted sections of fascia.

Replacement of rotted sections of soffit.

Replacement of rotted molding profiles within the cornice.

PROJECT 05 – 2015 – RUSSELL SCHOOL

Cost: **\$252,421**

Funding Source: CPA, MPPF, NTHP, Amex HP Grant, Felicia Fund

*Carpentry, roofing and gutters – All exterior woodwork throughout the building including East and West Porch roofs and supports, roof repairs and installation of gutters to protect building envelope and foundation.*

Tasks:

Scrape, prime and paint all wooden elements.

Wood repairs to East and West porch columns, ceilings and architraves, cornice, panels, trim, and other wood members, as needed.

Installation of 20 oz/sq' "red" copper gutters.

Installation of 20 oz/sq' "red" copper leaders.

Replacement of cricket flashing assembly.

PROJECT 06 – 2017 – NORTH HADLEY VILLAGE HALL

Cost: **\$304,930**

Funding Source: CPA, MPPF, HF Dickenson, NTHP

*Envelope restoration – Appropriate repairs to the foundation, exterior cladding and trim, installation of bird netting, and complete painting of exterior.*

Tasks:

Patch and repoint brick foundation, as needed.

Repoint stone foundation in its entirety.

Front entry landing and stairs.  
Cedar clapboard replacement, as needed.  
Replace rotted sections of the water table.  
Installation of bird netting within cupola.  
Prep, prime and paint exterior.

PROJECT 07 – 2019 – RUSSELL SCHOOL

Cost: **\$405,559**

Funding Source: CPA, MPPF, NEA, NTHP, Amex

*Masonry – Multiple masonry projects at the foundation, exterior walls and chimney. Rebuild all exterior steps.*

Tasks:

Repointing work at stone, as needed.  
Installation of epoxy (or low shrinkage grout).  
Repointing work at brick, as needed.  
Install new copper sheet metal cap at chimney.  
Rebuild top of chimney and repoint remainder.  
Rebuild eastern porch stairs.  
Rebuild northern porch stairs.  
Rebuild western porch stairs.

PROJECT 08 – 2020 – NORTH HADLEY VILLAGE HALL

Cost: **\$73,168**

Funding Source: CPA

*Fenestration – Complete restoration or replacement of original windows.*

Tasks:

Preserve all existing original windows per window schedule.  
Replace cellar windows with new.  
Add exterior storm windows to existing original windows.

PROJECT 09 – 2022 – RUSSELL SCHOOL

Cost: **\$170,732**

Funding Source: CPA and MPPF

*Envelope – Completion of non-essential tasks at roof, fire escape, and woodwork, cleaning.*

Tasks:

Masonry cleaning, application of poultice.  
Replace stepped side-wall flashing details at roof.  
Replace rolled ridge on hips.  
Restore original sash/window trim, as needed.  
Fire escape, prep, prime and paint.

	IMMEDIATE			INTERMEDIATE		MID-RANGE			LONG-TERM			TOTALS	
	2013	2014		2015	2016	2017	2018	2019	2020	2021	2022		
Implementation Year	HTH	NHVVH	RS	NHVVH	RS	NHVVH	NHVVH	RS	NHVVH	NHVVH	RS		
Building	3	1	2	4	5	6	7	8	9				
Project Assignment #/ Cost	\$19,250	\$5,500	\$8,765	\$203,248	\$198,276	\$225,772	\$283,041	\$49,577	\$109,043				
Tasks	Repoint foundation; parge coat foundation; weatherstrip windows and doors; replace Cellar windows; miscellaneous	Foundation probes	Tell-tale gauges; temporary West porch roof supports; storm windows	Replace main roof; replace cornice roofs; replace shed roof; install gutters and leaders; replace Entry porch roof; re-point chimneys; replace rotted fascias, soffits and cornices; replace and re-roof roof intersection	Prep and paint woodwork; woodwork repairs; install gutters and leaders; replace cricket flashing	Strip, patch and re-point brickwork; re-point stonework; re-set entry steps; replace clapboards; repair water table; prep and paint exterior; install bird netting	Re-point stonework; epoxy repair to stone; re-point brickwork; install chimney cap; re-build exterior steps; re-build chimney	Preserve existing windows; replace Cellar windows; install storm windows	Clean masonry; replace roof flashing; replace roof ridges; restore windows and trim; prep and paint fire escape				
	Sub-Total	\$19,250	\$5,500	\$203,248	\$198,276	\$225,772	\$283,041	\$49,577	\$109,043				
	Plus Contract Fees @ 20%	\$23,100	\$6,600	\$243,898	\$237,931	\$270,926	\$339,649	\$59,492	\$130,852				
	Plus inflation @ 3% per year	-	-	-	\$251,215	\$252,421	\$304,930	\$405,559	\$73,168	\$170,732			
Cumulative Totals		\$40,218		\$251,215	\$252,421	\$0	\$304,930	\$0	\$405,559	\$73,168	\$0	\$170,732	\$1,498,242
Funding Source(s):	CPA			CPA; MPPF; NEA; NTHP	CPA; MPPF; NTHP; Amex HP Grant; Felicia Fund	CPA; MPPF; HF Dickenson; NTHP	CPA; MPPF; NEA; NTHP; Amex HP Grant	CPA	CPA; MPPF				

Notes:

Additional Fees:  
Estimated Professional Design Services over the lifetime of the project(s); 20% of the total construction costs or an additional \$300,000.

HTH- Hadley Town Hall  
NHVVH- North Hadley Village Hall  
RS- Russell School



## **PART 5**

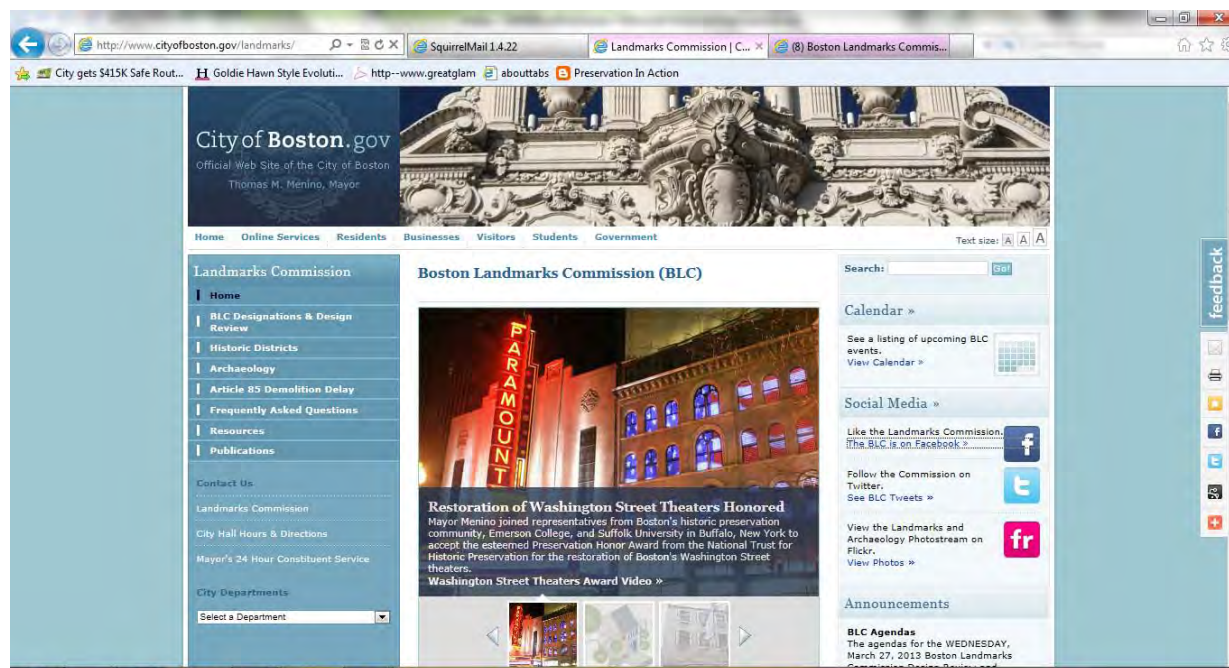
### **Increasing Public Awareness of Historic Preservation**

## INCREASING PUBLIC AWARENESS OF HISTORIC PRESERVATION

Increasing public awareness of historic preservation in Hadley will require a dynamic approach and multi-pronged initiative to be successful. Some of the recommended actions are relatively involved, such as creating an annual *Olde Towne Festival*, and involve others from the community in planning, coordination and execution. Others, such as the creation of social media and websites, are low-hanging fruit: ready, accessible, inexpensive—often free—methods to reach a wide audience quickly and easily. To increase public awareness of historic resources within the Town that contribute directly to the heritage of its built environment, the people must develop a connection with place. The following ideas can be implemented by motivated individuals who are dedicated to promoting the goals and objectives of the Hadley Historical Commission (HHC) largely without great expense or effort:

**Use of social media and the internet to promote historic preservation** The current link on the Town's website for the HHC goes to a blank page. This page is the first free opportunity to promote historic preservation and the HHC. Additional links to social media and other historic preservation-related web pages should be here. Having a presence on the internet is critical to the successful promotion of and long-term participation in historic preservation in Hadley. Facebook, Twitter, Google+, WordPress, and YouTube can be used to easily and effectively increase public awareness of historic preservation in Hadley and make the HHC an accessible member of the community. WordPress offers a way to create an inexpensive (or even free) website. The new web page should also contain an active blog with frequent entries and updates; this reinforces the sense of "presence" in the community. This is the primary way to attract younger participants.

### Examples





Town of  
*South Hadley* Massachusetts

**On Our Site**

- About South Hadley
- Town Departments
- District Departments
- Boards and Committees
- Agendas and Minutes
- Forms and Documents
- Town Calendars
- Schools
- Send Us Comments
- Subscribe to News
- Home

## Historical Commission

[Printer-Friendly Version](#)

**Contact:** [Robert Szklarz](#)  
Chair

**Phone:** 413-374-8175

**Meetings:** The Commission will meet regularly on the first Monday of even numbered months at the Sycamores House, 28 Woodbridge Street.

[Meeting Agendas](#)      [Meeting Minutes](#)

**Additional Links:**

<a href="#">South Hadley Historical Milestones</a>	<a href="#">South Hadley Historical Society</a>	<a href="#">South Hadley Historical Society Blog</a>
<a href="#">Historic District Study Committee</a>	<a href="#">Historic Resources Survey Results</a>	<a href="#">Massachusetts Historical Commission</a>
<a href="#">Role of the South Hadley Canal in Western New England's Development</a>	<a href="#">Heritage Landscape Inventory Report (PDF 8.7 M)</a>	

**Historical Commission Members**

Name	Title	Term
Robert Szklarz	Chair	2015
Kenneth Williamson	Vice Chair	2015
Desiree Smelcer	Secretary	2015
Susan Canedy	Member	2015
Laura Ann Legare	Member	2014
Gail C. LePine	Member	2013
Scott Sargent	Member	2015
Adam R. Sweet	Member	2015

Search



twitter 

Haz clic aquí para alertas por voz, correo electrónico y mensajes de texto

*An example of a nearby historical commission's page on the Town's website. Note the 'additional links' that direct the interested party to further resources and information.*

**Develop a strong relationship with the media** Invite members of the mainstream media to events and meetings, issue press releases, and provide photos for print media/web use. When an event or important meeting is planned, promote it through local television news stations and

newspapers and invite them to attend. If a public access channel exists it could be used to televise meetings. The Board of Selectman in Hadley has created a YouTube channel to document and provide access to their meetings; the HHC should follow suit. The media should be encouraged to “donate” space in their print publications for op-ed articles about the importance of preservation in Hadley and regular columns about local or regional history and the goings-on of historic preservation in the community.

### *Examples*

#### Public Access Television Channel 5 and YouTube

WGGB-TV ABC40 / FOX 6, 1300 Liberty St., Springfield, MA 01104 (413) 733-4040 Station Manager/V.P. of News: Jim Tortora; Promotions Director: Brendon Fontanella  
On their website you can add Community Events for free and include photos, contact info and much more in your event listing.

CBS 3 talent is available, depending on their schedule and breaking news situations, to be a part of events at no cost. Contact CBS 3 Springfield promotion specialist Brian Kowalenko at (413) 523-4915 or e-mail [brian.kowalenko@cbs3springfield.com](mailto:brian.kowalenko@cbs3springfield.com) for more information.

WWLP-22 News, One Broadcast Center, Chicopee, Ma 01013, (413) 377-2200  
Email: [reportit@wwlp.com](mailto:reportit@wwlp.com) Event submissions are FREE and must be open to the general public and/or those in the WWLP viewing area. Charitable events, fundraisers and/or free community events are welcome as are events held by not-for-profit organizations.

Daily Hampshire Gazette “Give us news to publish about your clubs, civic groups, social organizations, churches, schools, businesses, and sports teams, and about individuals and groups making an impact on your community.” Bring in news items from 8 a.m. to 5 p.m. weekdays at 115 Conz Street, Northampton or drop releases through the front door mail slot after hours. Mail your news items to the Gazette at: PO Box 299, Northampton, MA 01061-0299. Every Friday, schedules of community meetings, concerts, lectures and other events open to the general public are published in Hampshire Life. The deadline for submitting your news items for the calendar is Tuesday of the same week. E-mail to [calendar@gazettenet.com](mailto:calendar@gazettenet.com) or mail to Hampshire Life Calendar, P.O. Box 299, Northampton Ma 01060.

**Develop a Historic Preservation Plan for the Town** The Plan serves as a ten (10) year action plan for historic preservation in Hadley and is designed to serve as the historic preservation component of a comprehensive master plan Town. Community Preservation Act (CPA) funds can be used for an historic preservation survey. The Commission thereafter develops a request for consultant services to develop a preservation plan for the Town, to include consideration of Hadley’s historic landscapes. Consultants collect and assess the Town’s inventory of information



on historic resources, as well as the Town's historic preservation tools (development rules and regulations). The consultants present the Commission with a summary of their findings and preliminary recommendations regarding the Town's historic inventory. Next, the public participation phase solicits community input concerning local historic preservation efforts and preservation priorities. Public comment is sought in three ways: surveys, interviews and public forums. Based on the results of the public participation phase, the Commission works with the consultants to refine a draft Hadley Preservation Plan which is then presented to several Town boards and committees for comment. Finally, after any necessary edits and revisions, the Hadley Historic Preservation Plan is completed and approved.

The Massachusetts Historical Commission's "On the Road" program is designed to assist Local Historical Commissions and Local Historic District Commissions. MHC's Director of Local Government Programs is available to visit communities, discuss local historic preservation issues, and offer ways to resolve problems. An appointment must be made, and MHC encourages several communities to join together when meeting with the Director of Local Government.

Contact: Chris Skelly  
Dir. Of Local Gov't  
Massachusetts Historical Commission  
220 Morrissey Boulevard  
Boston, Massachusetts 02125  
617-727-8470  
christopher.skelly@state.ma.us

#### *Examples of Massachusetts communities with Historic Preservation Plans*

Amherst, Sandwich, Easton, Barnstable, Bolton, Brookline, Randolph, Yarmouth, Framingham, Concord, Westford Wenham, Longmeadow, Plympton, West Tisbury, Hatfield, Hudson, Acton, West Springfield, Fairhaven, and Andover.

**Create public education programs** These can include all manner of events and the production of materials for attendees. Guest speakers from the private sector are available to speak on a variety of topics related historic preservation and public history. These programs could be conducted in Russell School, North Hadley Village Hall and the Library so that attendees develop a connection to the buildings and an appreciation for them. Speakers do not have to focus on esoteric topics alone. They can increase awareness and encourage materials conservation: "Saving and restoring the windows on your old house," or, "How to improve the energy efficiency of your home," or, "Tricks for the repair and restoration of your old house." In addition to advertising through the media and internet, physically post advertisements for the events at Lowe's and Home Depot to attract local home owners and DIY'ers. Creating

partnerships with such commercial entities may also produce sponsorship in the form of materials and funding for these and other events.

### *Example*

## Baltimore Heritage


Preserving and promoting Baltimore's historic buildings and neighborhoods.

HOMEABOUTTOURSPRESERVATIONEDUCATIONAWARDSUPPORTCONTACTBLOG

### Learn to restore historic wood windows with the "The Old House Doctor"

[Leave a reply](#)

Home owners, contractors, architects, and anyone who loves their old house is invited to join Baltimore Heritage and [Duffy Hoffman](#), "The Old House Doctor," at [Second Chance](#) on March 24 for a one-day wood window rehabilitation workshop. Attendees will learn how to repair and preserve deteriorating and damaged wood building components and how to appropriately restore and weatherize historic wood windows. [RSVP](#) then [pay online today!](#)



Architects can receive 6 AIA/CES (HSW/SD) with registration.

#### Windows Restoration Workshop with Duffy Hoffman, "The Old House Doctor"

Saturday, March 24, 2012  
9:00 am to 4:00 pm  
Second Chance, 1700 Ridgely Street, 21230  
[RSVP Today!](#)  
\$20.00 per person, [payable online](#).

*Space is limited so please register before March 17, 2012.*

FIND OUT ABOUT TOURS & MORE!

First Name



Last Name

E-mail: \*


\* required

[Sign up today](#)

FIND US ON FACEBOOK

**Baltimore Heritage**  
 Like 1,594

SUPPORT OUR WORK



**Present awards to community members for preservation efforts** Publicly recognize homeowners that restore vintage structures or a local citizen or elected official who advocates for historic preservation in the community. No static number each year, just an annual recognition of those who make the effort. It's about instilling pride in place; buildings are the tangible objects that represent that place. Use it as an opportunity to identify other historic preservation-minded members of the community and encourage them to get involved.

### *Example: Chatham, Massachusetts*

Launched in 2004, the Chatham Preservation Awards program aims to honor noteworthy efforts by local property owners and others to preserve and maintain historic residences and other

important historic resources. Sponsored jointly by the Town of Chatham Historical Commission, the Town of Chatham Historic Business District Commission, and The Chatham Historical Society, the Awards are presented annually to local projects for a broad range of preservation activities, including stabilization, rehabilitation, restoration and adaptive reuse of historic structures; sensitive additions and modernization; preservation of historic streetscapes; landscape preservation; and archaeology.

Award-winning projects can include private residences, commercial properties, publicly-owned buildings, not-for-profit institutions and historic landscapes. Properties must be at least 75 years old to be eligible and primary emphasis is given to exterior preservation, rehabilitation or restoration (but if interior work is open to the public, it is also eligible for consideration).

Nominations are judged on the basis of the following criteria:

- The historic and architectural significance of the property preserved by the project.
- Sensitivity to the historic integrity of the building and its site, including streetscapes.
- Preservation or replication of historic materials and quality of project craftsmanship.
- Impact of the project on the preservation of the town's historic fabric, neighborhoods and resources

Each year, Chatham Preservation Awards are made for projects completed in the previous 10 years. The final selection of award-winning projects is made by a committee formed of representatives from the three sponsoring organizations. Where appropriate, the projects are also evaluated using the U.S. Secretary of the Interior's guidelines for the preservation and rehabilitation of historic structures. A project can be nominated either by the property owner or by another individual or group, such as a neighborhood organization, building contractor, architect or town body. Nominations from the general public are strongly encouraged.

*Sample of other Massachusetts communities with historic preservation award programs*

Cambridge, Somerville, Norton, Brookline, Lexington, and Andover.

**Improve the Historic Society** The Town historic society is not findable on the internet while the South Hadley Historic Society has a great website. The historic society should be a partner in efforts to raise public awareness. The HHC should develop a relationship with the historic society as a private partner through whom advocacy can be promoted. The society may be able to execute elements of this public awareness plan with less difficulty and restrictions than the HHC would encounter as an official Town commission.

## Example




[home](#)
[events](#)
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[about mhs](#)
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### The Medford Historical Society

This local historical society was organized in 1995 by concerned citizens from the city of Medford, Massachusetts. Their purpose was to collect and preserve the history of this historic city, to correct the myths that had grown up over the years, to build a historical library, to collect the artifacts of local history, and to celebrate historical anniversaries.

Our next event:  
See our [Events Page](#) for more details and a complete listing.

The Medford Historic House Marker Program  
Homeowners can now celebrate the rich architectural history of Medford with an attractive historical marker that shows the original date their house was built. [More information.](#)







**Civil War Photographs**  
Originally assembled by Medford citizen and first mayor, General Samuel Crocker Lawrence, who commanded a regiment in the Civil War, these photos were prepared largely in the expensive platinum method which insures photographs of extraordinary clarity and detail that is still apparent today. [Landscapes of the Civil War.](#)

**Medford Slave Letters**  
This sixty-year correspondence between Timothy Fitch, a Medford resident, and a ship captain of Fitch named Peter Gwinn occurred between January, 1759 and October 1765. An extensive selection of these letters are scanned and transcribed. [Medford Slave Letters.](#)

**Pitch, Tar and Tallow**  
In the nineteenth century the Mystic River was tidal and flowed unchecked to the ocean. Thatcher Magoun, a Pembroke man, saw the possibilities and started the first ship yard. [Medford-Built Sailing Ships.](#)





**Making Bricks**  
Brick from the Medford brickyards went up the Middlesex Canal and helped to build mills in Lowell and New Hampshire. Who knows how many private houses up-country were built with these same bricks which came out of Medford's clay pits? [Making Bricks in Medford.](#)

**Afro-American Remembrance**  
West Medford forms part of one of the oldest Afro-American communities in the United States. A committee of several longstanding Afro-American residents are working with Tufts and Brandeis Universities to document the legacy of outstanding Afro-Americans from  


**Middlesex Canal**  
Although most traces of the Middlesex Canal have long since been erased or built over, we in Medford have not forgotten the ingenuity and industry of our forebears in helping to build this canal. [The Middlesex Canal.](#)

**Visit Our Museum Shop**  
[Click for more info.](#)  
Historical books and gifts are available from our Museum Shop.

**Find us on facebook**

**Other Historical Organizations in Medford**  
The Brooks estate. Fifty acres of historic open space, two historic buildings.  
[Rogell House and Slave Quarters, National Historic Landmark.](#)  
[Medford Historical Commission / Historic District Commission](#), Official city board for historic preservation and district issues.

**Project Local**  
Learning Our Community's American Lore  
Funding for the Medford Historical Website was provided by Project LOCAL  
(Learning Our Community's American Lore) through the United States Department of Education.

*Note the links to the Medford Historical Commission and Historic District Commission*

**Sponsor and stage public events** Create an annual event that brings the entire community together for a weekend celebration. Take advantage of the park next to Russell School and stage a portion inside. Perhaps an annual pumpkin festival with dunking booth at North Hadley Village Hall or a travelling carnival at Russell School with bake sale inside. All of these events



would have an HHC booth with print media items. A more ambitious endeavor would be to create an annual *Olde Towne Festival* in the Fall with a series of events all at the different Town properties: an amusement park rides at Russell School and bake/craft sale inside; an involved haunted house created in art classes and staffed by school kids at North Hadley Village Hall; and, a book sale and police-sponsored kid ID program at the Library. ‘Olde Towne Days’ starts with a parade at the elementary school and ends at the park next to Russell School. The select board and other dignitaries form at the review stand (the front porch of TH) as various local sports teams and civic organizations march by—and don’t forget the fire engines. During the festival, coordinate a tour of old homes with proud members of the public and offer informative tours of the Town buildings that speak to the history and architecture of the structures. Through these experiences and association, the people will realize the intrinsic value in the structures as they become a part of the memories. This idea is in keeping with the tradition of Old Home Week. Old Home Week is a practice that originated in New England and is most similar to a holiday or festival. In its beginning in the 19th-20th century it involved a municipal effort to invite former residents of a village, town, or city - usually individuals who grew up in the municipality as children and moved elsewhere in adulthood - to visit the "Old Home", the parental household and home town. In the late 20th and 21st century the practice has spread to other parts of North America and has become a broader celebration with an emphasis on local culture and history.

### *Examples*

**FREEDOM, NEW HAMPSHIRE** Every year in August the community celebrates “Old Home Week,” a New Hampshire tradition that was officially recognized by Proclamation in the New Hampshire State Legislature in 1913. Freedom is one of only five towns throughout the state that still celebrates a full “Old Home Week”. Activities are varied and include a myriad of events that bring current and former residents and their families together. Activities include a parade through town, a lobster dinner, an outdoor cocktail party, water and land sports as well as an annual craft sale.

**HASTINGS, EAST SUSSEX, ENGLAND** Hastings Old Town Week is an annual summer event celebrated in Hastings. The Old Town week typically occurs during the first week of August and includes events such as concerts, street parties, charity races and dancing. The weekends with the Old Town Carnival procession, which contains 'floats', dancers, majorettes and marching bands and ends with a firework display in the evening. The carnival was first started in 1968 after Old Town residents felt the original Hastings Carnival should have included the Old Town in its route and decided to set up their own carnival.

**Create local historic districts** The MHC provides a guidebook on how the Town can pass a by-law consistent with MGL 40C to create local historic districts. Massachusetts doesn’t allow an individual building to be landmarked—they allow the town to create districts with one building or more in them. The HHC should advocate for the creation of local historic districts

that include the applicable buildings owned by the Town. There will be no public outcry from citizens who think they'll be told what color to paint their houses. The creation of the local historic districts should be covered by the media to demonstrate how protecting historic structures can be harmless and pain free. Local districts can be expanded to include additional buildings when others want to be a part of it. Churches are generally enthusiastic because their members have strong memories and pride in place—they like the idea of the building being there forever. The initial round of historic district creation could include:

- Hadley Town Hall
- Russell School
- North Hadley Village Hall
- Hadley Farm Museum
- Goodwin Memorial Library
- Hooker School
- First Congregational Church and Parsonage
- North Hadley Congregational Church

**Establish a historical marker program** This is a simple way to promote historic preservation, demonstrate pride of place and educate the town about its heritage. Start with municipal properties. Establish appropriate criteria to encourage private participation.

*Example (from Historic Newton's website)*

<http://www.newtonma.gov/gov/historic/quicklinks/shop/markers.asp>

What is Newton's historic marker program? Newton's historic marker program is a new initiative to place "date and original owner" plaques on homes throughout Newton as a way of spreading the word about Newton's history, providing information about the City's architectural development, and creating a sense of pride in our community. Historic Newton is a non-profit organization based at the Jackson Homestead and Museum.

What does the historic marker look like? Newton's historic marker is an attractive 14.5"x 9" wooden oval, accented with beveled edges, light gray in color, with dark green lettering. The "all weather" markers are designed for placement on the outside of your home.

What does the marker say? Each custom-made marker will show the date your home was built and, if known and desired, the name of the family who first lived there. Because this is a historical program, the names of the current owners may not be used. The marker also carries the name and official logo of Historic Newton.

## ADDITIONAL IDEAS FOR INCREASING PUBLIC AWARENESS OF HISTORIC PRESERVATION IN HADLEY

**Partner with the school district** School sponsored field trips to historic buildings and sites are a regular fixture in most districts' plans. Create low cost field trips to these buildings for the Town's school children that will enable them to develop an early appreciation for their community's history as represented by the structures that define its built heritage. These trips are probably more appropriate to middle-school aged youth and older.

**Hire a public relations consultant or seek donated services of same** Increasing public awareness for historic preservation in Hadley is not a full time job. However, a public relations consultant could be a cost effective way to plan strategies for promoting historic preservation in the Town as time and budget allow. The members of the HHC and community who will execute this plan to increase public awareness of historic preservation in Hadley are all volunteers. Again, consider partnership with the historic society. Retaining the services of a PR consultant, from time to time, is an effective way to turn ideas into action as budgets allow.

**Partner with State and Local historic preservation resources** The University of Massachusetts, Amherst and the Massachusetts Historical Commission can be accessed by sponsoring guest lectures and local and regional tours. Encourage participation by Hadley residents in the many free historic preservation-related offerings available from these organizations. Sponsoring can be as simple as organizing, advertising (i.e., on your website and printing flyers) and by providing space for the presentations.

**Contact and pool resources with other local Historic Commissions** Learn what other historic commissions are doing to promote historic preservation. See what commonalities are shared. Promotion of historic preservation could be jointly produced to take advantage of regional talents and make limited resources go further. Go regional.