



## CONDITIONS ASSESSMENT

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2519-R

# FIRST PARISH UNITARIAN CHURCH & MEETINGHOUSE

ORANGE RD  
WARWICK, MA

OCTOBER, 2025



Spencer Preservation Group  
PRESERVATION ARCHITECTS

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## TABLE OF CONTENTS

|                                                                          |    |
|--------------------------------------------------------------------------|----|
| ACKNOWLEDGMENTS .....                                                    | 5  |
| EXECUTIVE SUMMARY .....                                                  | 7  |
| <b>PART 1: HISTORY &amp; SIGNIFICANCE</b>                                |    |
| A) BUILDING HISTORY & ARCHITECTURAL SIGNIFICANCE .....                   | 11 |
| <b>PART 2: EXISTING CONDITIONS</b>                                       |    |
| A) EXTERIOR CONDITIONS ASSESSMENT .....                                  | 21 |
| B) INTERIOR CONDITIONS ASSESSMENT .....                                  | 35 |
| C) STRUCTURAL REPORT, STRUCTURES NORTH CONSULTING<br>ENGINEERS .....     | 39 |
| <b>PART 3: PRESERVATION &amp; REHABILITATION</b>                         |    |
| A) REGULATORY ANALYSIS .....                                             | 63 |
| B) OUTLINE SPECIFICATIONS .....                                          | 67 |
| C) RECOMMENDED TREATMENT DRAWINGS .....                                  | 69 |
| D) OPINION OF PROBABLE COST .....                                        | 73 |
| <b>PART 4: APPENDIX</b>                                                  |    |
| EAGLEVIEW STUDY .....                                                    | 79 |
| ARTICLES 23 - 25, WARWICK ANNUAL TOWN MEETING MINUTES,<br>5/5/2025 ..... | 91 |

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## ACKNOWLEDGMENTS

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## EXECUTIVE SUMMARY

Spencer Preservation Group wishes to express gratitude to the Town of Warwick for the opportunity to prepare a Conditions Assessment for the Unitarian Church and Meeting House. From the time it was raised, an affair that included the entire town, it served as host for connection and engagement in the form of services, lectures, and county fairs (between 1859-1861). The dignified meeting house has quietly watched the Town of Warwick develop from its situation to the west of Orange Road for nearly 200 years. It has endured tribulations, including cracked bells and lightning strikes; and it has enjoyed prosperity, as in the generous donation of the Howard clock that keeps time in the belfry, and the pipe organ from Brattleboro, VT in the main sanctuary. The meeting house is a landmark and a significant piece of Warwick's heritage.

While the building is well cared for and clearly appreciated by the Town it serves, the most effective first step towards planning for the future is taking inventory of the existing conditions of the structure. In April of 2025, the Town of Warwick engaged Spencer Preservation Group to examine the current condition and identify needs of the meeting house. This inventory, structured as a Conditions Assessment report, was informed by visits from our project team, which includes SPG as well as Structures North Consulting Engineers.

The Conditions Assessment is divided into two parts. **Part 1 (History and Significance)** documents the historical narrative of the site and explores the architectural significance of the building. Background information, including information about the building and premissis, repair history and available historic information, was collected through conversations with Town leadership and online repositories, including the Warwick Historical Society. **Part 2 (Existing Conditions)** describes the physical conditions outside and inside the structure. The assessment includes inspection of the building envelope, systems, and visually available structural conditions. Additionally, a component written by Structures North consultant Jill Borghardt highlights a structural inventory of needs.

Recommendations made in **Part 2** rely on findings from the conditions assessment, and are guided by the *Secretary of the Interior's Standards for Treatment of Historic Properties*. Structural integrity, including weathertightness and stability, are prioritized. Currently, the meetinghouse is faced with its most pressing architectural obstacles in the form of updating the roofing and flashing, impending window restoration, and flooring repairs. Structurally, attention should be paid to the floor framing and structural sills.

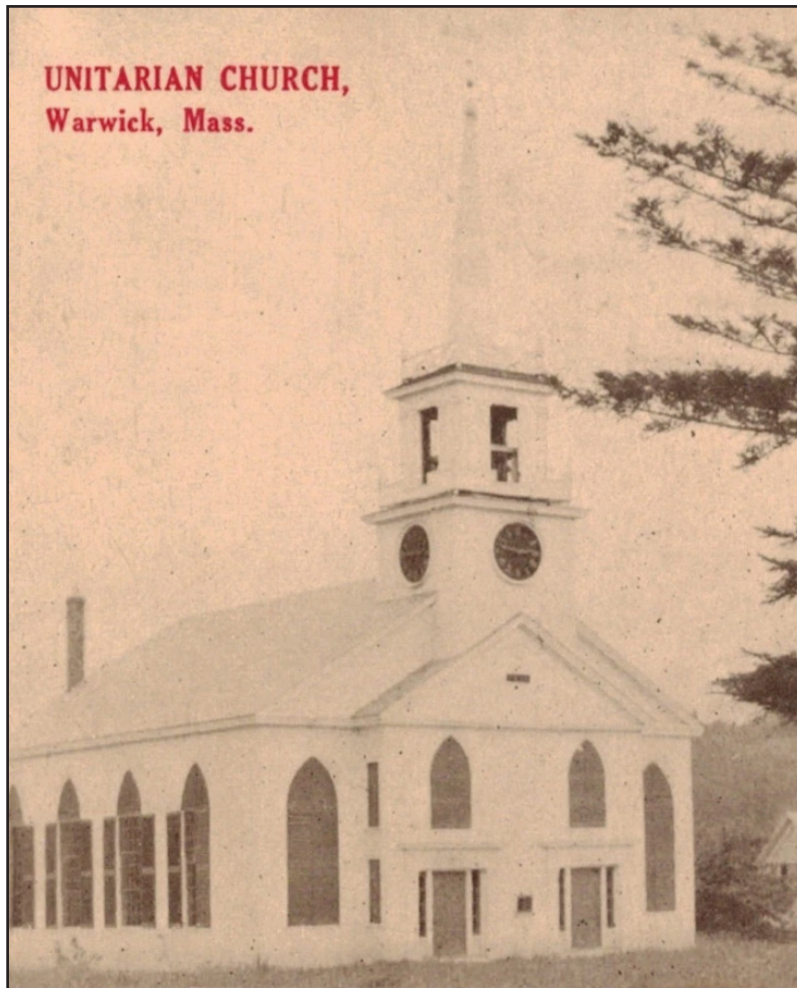
There are topics that are not specifically addressed in this report that require research, consideration, and planning that were beyond the report scope. For example, the existing site has no accommodation for parking. The site should be surveyed and a site plan should be produced by a registered land surveyor to evaluate feasibility and potentially design for parking accommodations. Traditionally, the parking problem has been solved by parking at the fire station across the street, or informal parking on the available space on the church site. If future active assembly events are offered in the building, the parking issue may need to be addressed.

The building assessment did not delve into the current status of site utilities, namely water and septic. The current situation and condition was not explored, but would likely need to be addressed if the building is to be revitalized for assembly use.

Finally, this report is meant to be an assessment of current conditions only, without masterplanning options for future use. There are options – the Town could consider leasing the building with preservation restrictions to assure that its historic qualities are maintained. As with any underutilized building, the key to its preservation is to assure that it has beneficial use.

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## PART 1: HISTORY & SIGNIFICANCE



**Image:** 1910 Postcard entitled "Unitarian Church, Warwick, MA." Found on eBay.com.

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## A) BUILDING HISTORY & ARCHITECTURAL SIGNIFICANCE

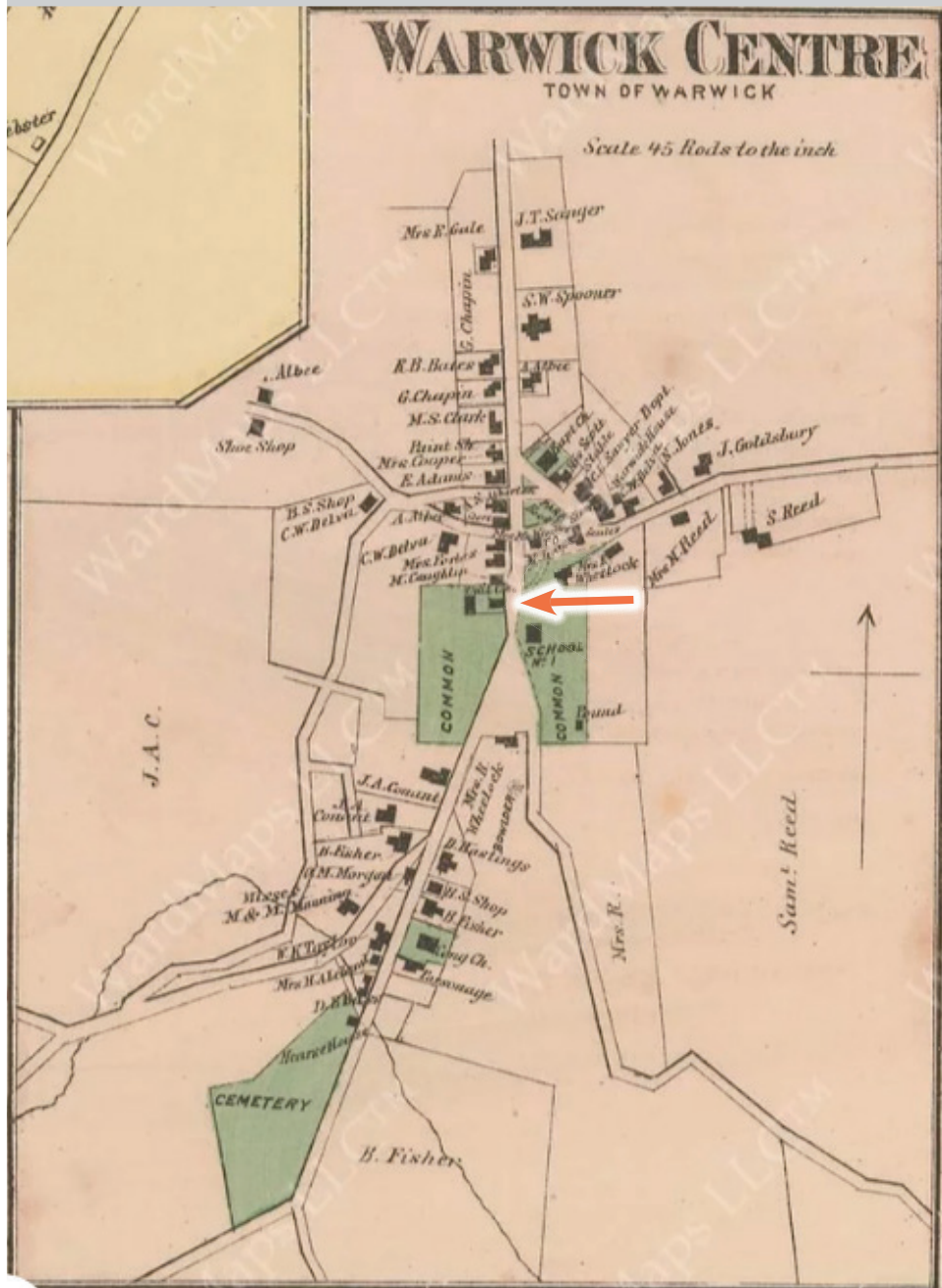
Warwick First Parish Unitarian Church and Meetinghouse, located on central Orange Road, has served the community of Warwick, MA as a place of gathering and worship for nearly two centuries. The building exhibits attributes of both Greek-revival and Gothic-revival architectural styles, emblematic of the shift in popular tastes from the former to the latter in the 1830s. The structure itself was erected in 1836 and sits on the Town Common, a tract of public land that today includes the first town cemetery, the center schoolhouse, and the fire station.

The Unitarian Church was built as a replacement for an earlier town meetinghouse that was erected across Orange Road from the current location in 1786 from funds granted by the Commonwealth of Massachusetts. Due to the public nature of this building it was supported and maintained through a ministerial town tax, though a loophole in the tax legislation caused increasingly significant budget constraints until 1834, when the citizens of the town finally voted to remove the building from the public domain. The First Parish and Religious Society was organized to accept the donated building from the town and, once the building was formally under private stewardship, began to consider possible avenues of rescue for the structure. Repairs were debated but it was ultimately decided that the building was in too poor of a condition to salvage.

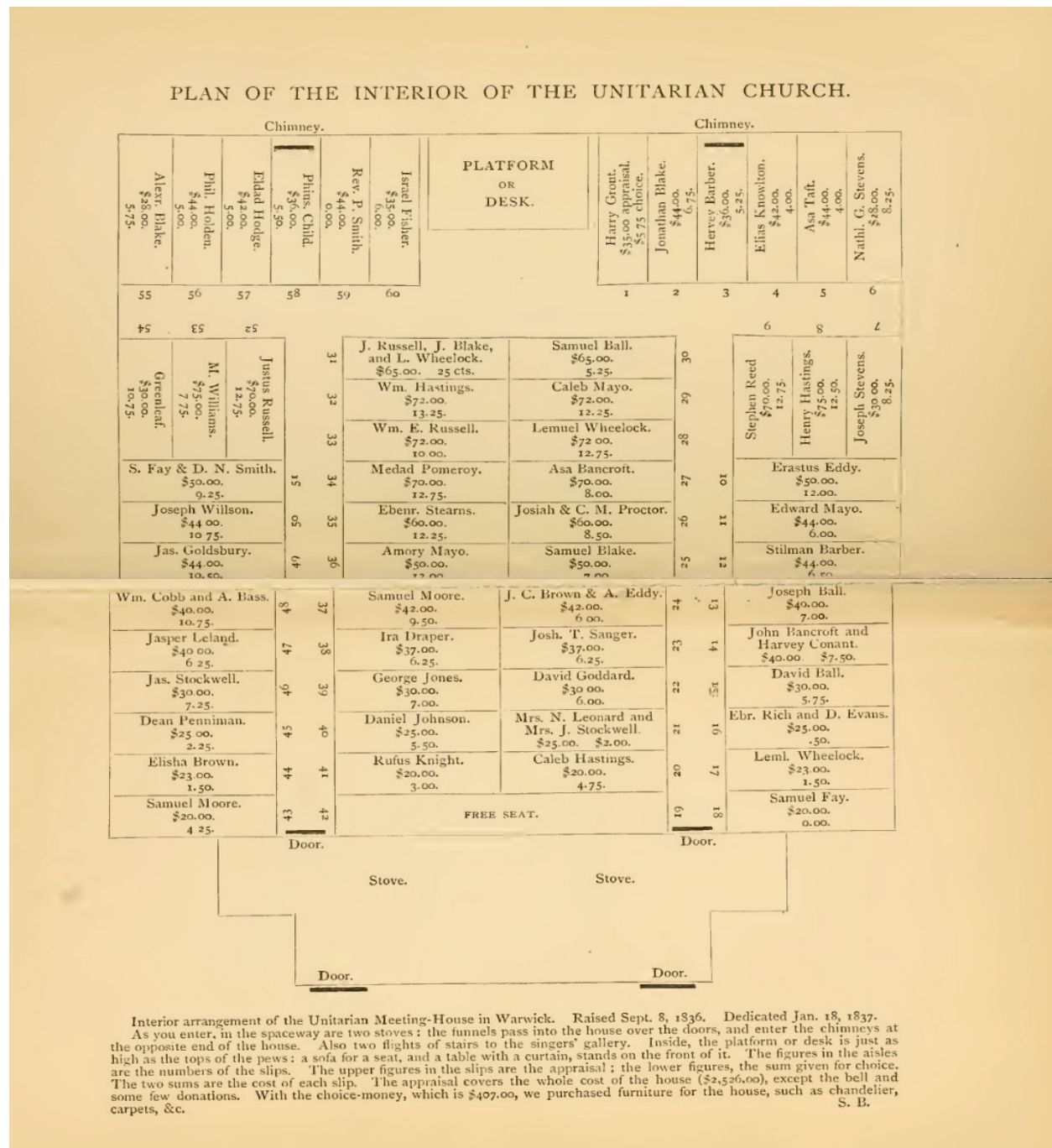
A building subcommittee was assembled by the First Parish and Religious Society and charged with commissioning a new design for the town meetinghouse. Jonathan Blake, Jr. proposed in January of 1836 that pew seating could be auctioned off in advance to make up a proposed \$1,500 budget to finance the new meetinghouse. **[Image A-01]** A sufficient number of pews were sold by February. On March 19, the building committee entered into a building contract with Chapin Holden, an accomplished local carpenter from Northfield. The men agreed “to build the Meetinghouse for \$1700, all above the underpinning.” (Contract, 1836) The old meeting house was sold to Holden for \$101 and demolished in July of 1836; it is possible that structural members from this building were reused in the new church under Holden’s experienced guidance, as evidenced by beams extant in the church attic today.

It was decided by the Society building committee that the new church would be built on “the west side of the road on town land,” (Morse, 1963) directly across the street from the site of the previous meeting house. **[Image A-02]** Due to the sparse settlement of the town, it would have been difficult and expensive to contract building construction with trained professionals; the necessary manual labor, then, had to be provided by the town itself. The solution was a frame-raising event, similar to a barn-raising, that was overseen by the experienced Chapin Holden. 74 townspeople were recorded on the Town Common each day of the raising, between September 8 and 9. On the second day, after the frame had been secured, the group retired to a celebratory dinner at the nearby Tavern of Asa Taft.

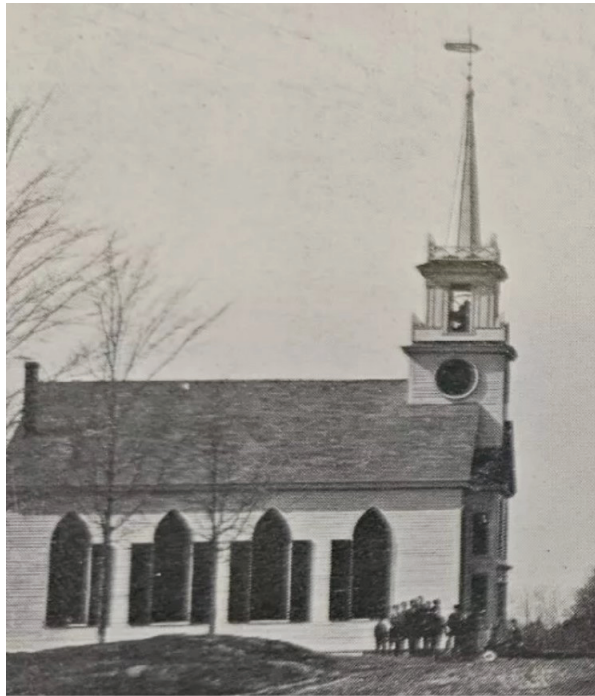
The wood specified for use in the structure included oak, chestnut, pine and hemlock. A seat from the back of the pulpit, whose platform rose 34 inches from the ground, ran the length of the platform in subtle resemblance to a sofa. The original contract specified lathing and plaster “wherever plaster was appropriate” and called for the upper corners to be arched. (Enterprise & Journal, 1928) The pews of the church themselves were fashioned by the up-and-down saw of Alexander Blake, whose sawmill was located on Moss Brook until his business was bought out in 1870. About the structure, Jonathan Blake writes in *History of the Town of Warwick, Massachusetts, From its Settlement to 1854* that



**Image A-01:** 1871 Map of Warwick Centre, Town of Warwick. Church indicated with red arrow, labelled on map “Unit. Ch.”



**Image A-02:** Plan of the Interior of the Unitarian Church, as found between pages 116-117 of *History of the Town of Warwick, Massachusetts, from its First Settlement to 1854* by Jonathan Blake, published by Noyes, Holmes and Company (Boston, MA).



**Image A-03:** Undated photo of church with congregation, courtesy of Warwick Historical Society

*"It is not large, but a neat, well-proportioned edifice, erected by subscription of the members of the parish...the house contains sixty slips, or pews, which will seat five grown persons each."*

The building was formally dedicated on January 18, 1837. **[Image A-03]** The final cost of construction approximated \$1850.

The first course of alterations to the structure was conducted in 1848 by Joshua T. Sanger. The interior was painted and the bell tower and steeple were installed. The first bell that was hung in the new tower cracked soon after installation; three more would be installed until the fourth (and current) bell proved satisfactory for the needs of the town. A vote was passed by the town to publicly fund a Bell Ringer, who would chime the instrument before services and public meetings, on weekdays at 12PM and 9PM, and for funerals.

The church was damaged considerably by a stroke of lightning in 1859. The repairs were extensive, costing \$285, and were executed by John Turner of Orange, MA.

During the two years preceding the Civil War an annual cattle and agricultural show was hosted at the Unitarian church for the residents of Warwick and neighboring towns. The fair was a lively and widely attended event until put to an abrupt end by the war in 1861. This would not be the only celebration misappropriated by the war; with the absence of the soldiers growing increasingly pronounced over the following months, centennial commemorations for the birth of the town were reduced to a single service held at the Unitarian Church on February 17, 1863.

In 1870 the parish raised \$500 from parish donations to service the church. The Messrs. Graves brothers of Amherst were employed to repaint and ornament the interior, and William K. Taylor was hired to reshingle the exterior and repair throughout. An account written by Jonathan Blake in March of 1872 affirmed that



“they not only have a well-proportioned church, but one that is completely and elegantly finished; and they now have as neat, tastefully-arranged, and beautiful a church as can be seen in any of the adjoining towns.”

Women were admitted to parish membership for the first time in 1871.

Originally, the church ceilings were plastered to match the walls. A vote was passed in 1889 to replaster the ceilings, but in 1890 the vote was rescinded. By 1891 the extant wood ceiling had been installed at a cost of \$257. Possibly as an extension of these building updates, the roof was un-shingled and furnished with slate in 1896.

The clock that rests in the steeple of the church was manufactured by E. Howard & Co. in Boston and first installed in the church in 1884. The piece was donated to the church by the Clapp family to commemorate the 100th birthday of congregation Mary Blake Clapp. Because the machinations of the clock automated the tolling of the church bell, the position of town Bell Ringer was rendered obsolete and soon replaced with a weekly Caretaker of the Town Clock appointment. In an expression of generosity on par with the donation of the clock, the extant chandelier in the nave was donated by the Northfield Unitarian Church in 1915.

In 1908, the First Parish and Religious Society purchased a seven-acre tract of land from Betsey Stewart, who inherited the parcel from Calvin W. Delva in 1902. The land and the house thereon served as a parsonage for the parish. The address of this house is 6 Mount Grace Avenue. **[Image A-04]**

In 1917, dwindling congregations in both the Unitarian and Congregational churches of Warwick caused the two organizations to collaborate, uniting their congregations and jointly using each building for one, then six, months at a time. This arrangement was so successful that in 1921 the two churches agreed to federate under one pastor, assuming a new identity as the Federated Church of Warwick. **[Image A-05]** The federacy was maintained until 1933, when intra-organizational politics compelled the First Parish and Religious Society to secede from the agreement. They formally withdrew effective December 27, 1934.

In 1921, the parish sold 3 of the 7 total acres of land acquired with the parsonage in 1908 to the state of Massachusetts, elevating the site into the Mount Grace Land Conservation Trust. This sale, used jointly with a combined pool of resources between the two organizations, financed the \$500 purchase of a pipe organ from the Unitarian Church of Brattleboro, VT. The pipe organ stands extant in the nave of the church today.

After the federation between the two churches was terminated, congregation numbers dwindled more dramatically. On November 1, 1954, a second union between the churches went into effect. The administration of the Warwick Federated Church remained similar to that of the first. The federation continued through the 1960s.

The bicentennial of the church was celebrated in 1963; as part of the commemoration, the numerals of the Howard clock were repainted in gold. The paint weathered sooner than anticipated, however, and in 1971 a second repainting was necessary. This was done by Lyman Signs of Philipston, MA, who used gold-colored Plexiglass to reletter the numerals and hands.



**Image A-04:** Unitarian Church, photographed 1895 (top) and Unitarian Parsonage (bottom), courtesy of the Churches, Ministers collection of the Warwick Historical Society



**Image A-05:** Unitarian (Federated) Church, Warwick, Mass. Undated, but printed after 1921 organizational federation. Courtesy of Penobscot Marine Museum.

A second lightning strike in 1986 caused fire damage that marred the steeple. The parish replaced the original wooden steeple structure with a more resistant cast fiberglass model in 1987. Because the lightning also damaged the clock mechanisms in the tower, a complete restoration of the clock was undertaken between 2007 and 2008. The project cost nearly \$6,700.

In 2025, with the congregation reduced to a single member (Arlene Lincoln of Warwick), it was voted by the Town of Warwick to move the First Parish Unitarian Church and Meetinghouse into public ownership. In addition to the building itself, the governing board of the First Parish and Religious Society offered additional funds to the town to repair the historic meetinghouse. The church is no longer used for active worship, and the structural condition prevents usability for regular town programming. However, this historic meetinghouse remains a treasured piece of Warwick's heritage and community advocacy is continuing to open doors for long-term preservation solutions.

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## **PART 2: EXISTING CONDITIONS**



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## A) EXTERIOR CONDITIONS ASSESSMENT

### ROOFING AND FLASHING

The assessment will address observations of the building exterior, moving from top to bottom of the structure. This section considers the primary roofing materials for the building, both in their materials and interfaces. It includes primary surface materials, flashings, and transitions. It focuses on traditional trouble spots, and assesses the current conditions, identifying problem areas and makes recommendations for treatment.

#### OBSERVATIONS

The roof is currently comprised of a semi-weathering green slate, each slate sized 11" x 17" with a 7" exposure. The semi-weathering identification is given as the green slate is also heavily mottled with rust or brown due to the oxidation of the iron layer within the slate. **Image A-01** indicates clearly the difference in weathering between the north and south exposures of the roof planes, with north shown at the right side of the photo. The church was most likely originally roofed with wood shingles. Historic accounts list a date of 1896 for replacement of shingles with slate. It is most likely that the slate present today dates to this 1896 installation.

While there does not appear to be evidence of leaking, the present slate roof is near the end of its life expectancy. Unfortunately, it is typical of slate to outlive the lifespan of the ferrous nails that fasten them. At the Unitarian Church there are numerous broken and missing individual slates.

**[Image A-02]**

Fortunately, due to the simple gable configuration there are no valleys – a traditional trouble spot for many roofs - and the only flashing intersections occur only at the chimney and where the tower meets the roof. There is a ridge cap of segmented pieces of copper fastened with nails with exposed heads. **[Image A-03]**

The limited scope of this assessment did not include aerial access to the roofs of the belfry and the clock pavilion for inspection. We have reviewed the available drone videos and can see a number of patches to those roofs **[Image A-04]**, but we did not observe evidence of active leaks



**Image A-01:** Overall view of roof. Note the wear difference between the north and south roof planes.



**Image A-02:** Photo 2 slate detail shows weathered and missing slates and copper ridge cap



**Image A-03:** Overall view of south roof plane



within the tower. Given that the last time work was done on the tower roofs would likely have been when the new spire was installed in 1987, the tower roofs bear monitoring, particularly considering the presence of the valuable clock works within the clock pavilion.

The roof directly below the fiberglass spire appears to be made of asphalt shingles, probably installed during the 1987 spire installation. At 38 years old, an asphalt shingle roof is at the end of its life expectancy. The drone views reveal a number of patches that have been made to extend the life of the roof **[Image A-05]**, and also appear at the locations of posts from the original balustrade that is now missing.

Relying further on the benefit of the available drone footage, it is possible to see some of the lesser “roofs”, such as the flashing for the projecting cornices over the pair of entry doors. Here, one can see that existing sheet metal is worn and doesn’t form a tight enclosure to the cornices that they are designed to protect. **[Image A-06]**



**Image A-04:** Owner-provided drone footage showing steeple condition



**Image A-05:** Drone shows poor condition of the belfry roof



**Image A-06:** Drone photo shows the poor condition of the flashing of the door entablatures

The church does not have gutters and downspouts and this is not unusual for Greek Revival buildings. In this style the soffits are quite deep, giving a sizeable overhang at the eaves so that rain runoff naturally is directed away from the building side walls. Given the wooded building site the lack of gutters is an asset, as it frees the building from the maintenance chore of cleaning the gutters of leaf build up.

At the building interior, plaster and paint damage is some locations indicate that leaks have occurred. [Image A-07] It is difficult to determine whether these are currently active leaks, but there are a couple of locations where cornice/ eave deterioration is observed from the exterior [Image A-08], and daylight is visible from the attic interior [Image A-09]



**Image A-07:** Detail of interior plaster and paint damage indicates leak location



**Image A-08:** Suspected leak location at deteriorated cornice



**Image A-09:** Daylight is observed in attic interior, indicated with arrow.



## RECOMMENDATIONS

Unfortunately, despite there being limited evidence of active leaks, all of the roofs and flashings observed above are near the end of their life expectancy. They should be replaced, and the choice of material for replacement opens a preservation-based debate. Research of documentation seems to identify the original roof as wood shingled, and that would be consistent with expectations of the era and style. It seems to have lasted until 1896, when the decision was made to replace it with slate. The slate choice was a good one as it has delivered well over 125 years of service.

The current replacement option will need to balance funding availability, preservation appropriateness, maintenance commitment, and longevity. Wood shingles would likely be the choice if committing to a restoration to the building's 1836 beginning. But the wood shingles that are produced today will deliver only about a 30-year life expectancy. The 1896 change to slate proved wise and the congregation was rewarded with a long lifespan. The fact that the building has had a slate roof for most of its life presents an easy argument that slate is an appropriate preservation replacement today. The first cost for slate replacement today is high, but it will last 3 times as long as a wood shingle roof. A slate roof is not maintenance-free as there will periodically be breakage from ice falling from the steeple, and individual broken slates will need to be replaced. Less costly alternatives are possible with metal or asphalt roofs, but a change to these materials would likely void funding interest from potential preservation-based programs. While these roofing alternatives come with less first-costs, one should consider that one slate roof will outlast about three lives of asphalt roof. Metal and asphalt roofs do offer less maintenance over their lifespans. Given the complicated formula of pros and cons around material choice, our recommendation would be for slate replacement as the most appropriate preservation choice and life cycle cost choice, factoring periodic maintenance.

For the replacement of flashings that should be done in conjunction with roof replacement, 20-ounce copper is recommended, due to its workability and durability. Replacements of

the smaller roofs, such as at the clock pavilion, spire base, chimney flashings, and the projected cornices above the entry doors should also be made with 20-ounce copper.

When installing replacement flashings, a number of improvements can be employed such replacing exposed face nailing with concealed fasteners. The use of newer products such as self-adhering and sealing underlayments improves the performance of traditional materials like slate and copper.



## STEEPLE

### OBSERVATIONS

In 1986, the existing church steeple was struck by lightning and burned. Valiant efforts from the Warwick Fire Department, with the assistance of the ladder truck from Orange saved the building from loss. The current steeple that was mounted above the belfry is a fiberglass replacement from 1987. Views of historic photos document the building and depict the steeple elements that were lost in the 1986 fire.

Among the lost features are the weathervane and an open balustrade at the top of the belfry and base of the spire. **[Image A-10]** Each corner of that balustrade featured an acroterion, an ornament that is a character defining element of the Greek Revival style. Today, the paneled balustrade that is a level lower at the clock pavilion roof, has one remaining acroterion similar to those that were lost at the belfry roof.

**[Image A-11]**

The paneled wood balustrade at the base of the belfry is deteriorated, and missing other acroteria. Understandably, as the height increases, existing wood elements and their paint coatings are more deteriorated than the lower level pieces. These elements are greatly exposed to the elements, and probably have not received as many paint layers as those pieces that are easier to access for repair and painting. **[Image A-12]**

Overall, the remaining steeple parts are in good condition, particularly at their interiors. The structural section of this report discusses the interior condition in detail.



**Image A-10:** Historic photo shows original steeple and balustrade at belfry roof. Today's steeple is a fiberglass replacement and the belfry balustrade is gone.



**Image A-11:** Only one of the original acroteria remains, indicated with arrow



**Image A-12:** Drone footage gives a detailed view of deteriorated existing wood balustrade at the clock pavilion roof

## **RECOMMENDATIONS**

While the open balustrade that originally surmounted the belfry roof is gone, replacing it now is likely a very low priority when weighed with the church's other needs. Its location makes it extremely challenging to maintain, and it is best left as lost. The lower existing balustrade at the base of belfry is worth restoring as an important character-defining element. Ideally, the missing acroteria could be replaced. Repairs and replacements at the balustrade should be done with a decay-resistant wood such as mahogany, and the restored assembly should be primed and painted.

## CHIMNEY

### OBSERVATIONS

There are two brick chimneys at the west end of the sanctuary. The chimney on the south side has been dismantled from the top down to the roof line where the roof has been infilled. The chimney of the north side remains as originally built. Its mortar joints are deteriorated and the top cap appears to be a brick cap that was parged with a cementitious coating. The chimney is currently active as a flue to the existing oil-fired furnace. **[Image A-13]**

When seated in the meeting space and facing west, the locations of the 2 chimneys are obvious. The original means of heating were 2 wood stoves that were located in the narthex (lobby). The meeting space would have been heated by the exposed stove pipes that ran from east to west, from stove to chimney. An example of such a system can be found today at the First Parish Church in Lancaster, where the meeting space is still heated with that method. **[Image A-14]**

### RECOMMENDATIONS

Mortar joints at the existing brick chimney should be cut and pointed. The parge coat at the cap should be inspected and may require mortar repair.



**Image A-13:** View of existing chimney on the north roof plane



**Image A-14:** First Parish, Lancaster MA which is heated today via wood fired stove pipes



## SIDING & TRIM



Image A-15: Existing entry entablature



Image A-17: Detail view of entablature corner

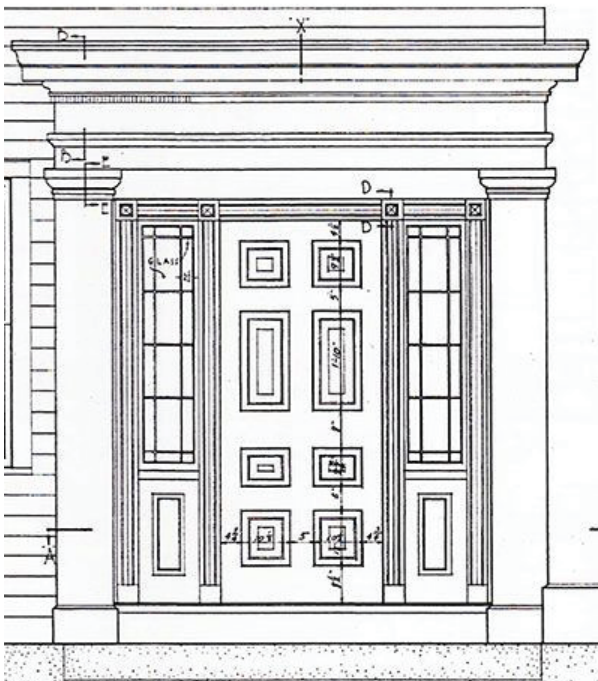


Image A-16: Example drawing from *A Field Guide to American Houses*, Virginia Savage McAlister, 1984.

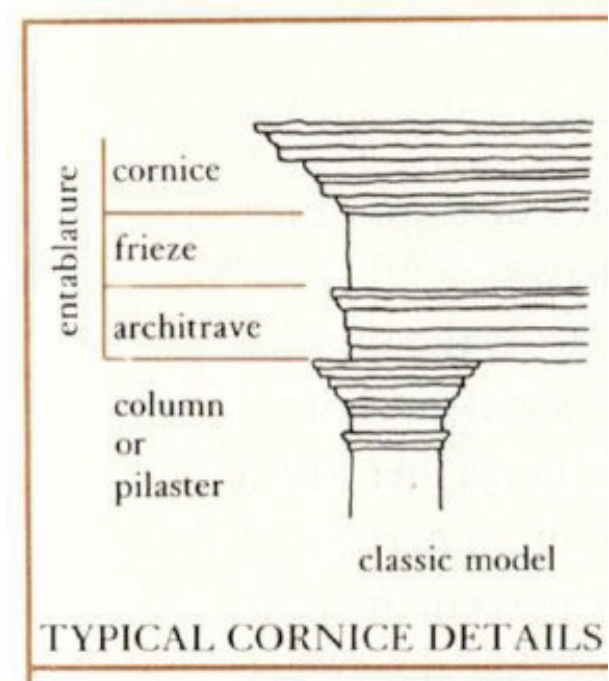


Image A-18: Detail example drawings from *A Field Guide to American Houses*, Virginia Savage McAlister, 1984.

## OBSERVATIONS

Exterior walls are sided predominantly with beveled wood clapboards with a 4-inch weather exposure. The façade entry pavilion is sided with horizontal flush boards which is a defining characteristic of the Greek Revival style – the builders were intent on presenting an impressive front that was built in wood, but styled to look like stone. Flush board siding was also provided at the lower levels of the building, also intended to represent a dressed stone foundation.

It is the level of detail at the exterior trim and ornamentation that elevates this building from a meeting house box to a well-defined assembly easily identified as Greek Revival. To say that the Warwick Unitarian Church is a “text book” example of the style is no exaggeration. [Images A-15, 16, 17, 18]

There is a hierarchy in the level of detail and ornamentation, as even less important features – such as the side doors to the lower level – have elements of the Greek Revival style. While not as ornate as the grand entry doors, the essential parts that define the style are still present. [Image A-19]

As a testament to the level of care that the congregation has devoted to the building, most of the essential elements of siding and trim are in intact, though with varying degrees of condition. The siding has selective areas where nailing is loose, but overall it is in good condition. Selective areas of the wood trim are in poor condition, particularly as might be expected where the trim is in direct contact with the foundation – areas where the wood wicks moisture from the masonry. [Images A-20, 21] The structural review section of this report points out that these trim conditions may also be symptomatic of deterioration that may also be present in the structural wood sills behind the trim.

As is often the case with projecting wood mouldings, there is also some evidence of deterioration, possibly due to poor flashing, or no existing flashing on the top surface of the wood projection.



**Image A-19:** Doors of lesser importance have less detail—but still with a Greek Revival vocabulary



**Image A-20:** Wood trim in contact with masonry is deteriorated



**Image A-21:** Deterioration of wood watertable trim in contact with masonry



## RECOMMENDATIONS

Selective areas of loose clapboard siding should be re-nailed. Existing deteriorated wood trim elements should be repaired with epoxy consolidation. Where the wood is too deteriorated to be repaired, elements should be replaced by new wood, custom cut to match the moulding profiles of the existing and original, and fabricated from a decay-resistant wood species such as mahogany. The skyward facing surfaces of projecting wood elements, such as cornices should be flashed with copper flashings to prevent water intrusion. **[Image A-22]** Siding and trim should be prepped and painted. While testing for lead paint was beyond the scope of this study, given the building's age it should be assumed that existing paint is lead-containing and paint preparation should be done with lead-safe management practices.



**Image A-22:** Detail of deteriorated wood cornice

## OPENINGS

### WINDOW OBSERVATIONS

The north and south elevations prominently feature 4 monumental triple hung wood windows that fill the space with natural light, and offered natural ventilation when then were operable. Each window has 3 sashes with 15 lites (5 wide by 3 high). The windows predate pulley and counterweight systems. They have exterior wood shutters that would have kept the interior cool in the summer. The pointed gothic arch shutter tops are an applied ornamental element installed only to signal that this Greek Revival meetinghouse was for built for religious purposes. [Image A-23] This treatment was commonly employed at churches, as in a similar example further north in Vermont. [Image A-24]

The shutters are in fair condition, with most of their wooden louver blades existing, albeit many are loose. [Images A-25, 26]



Image A-23: Windows of the south elevation



Image A-24: First Congregational Church of Townsend, VT exhibits characteristics similar to Warwick Unitarian



Image A-25: Existing shutters are mostly in goof condition, with some loose blades



Image A-26: At the east elevation, windows are fixed sash with gothic transom above



At the entry elevation there are two shorter windows - one centered above each of the two entries - that are composed of fixed 16 lite fixed sashes with fixed true glass gothic transom panels.

There are a few other window types and configurations on the church, such as the cottage style (sash of unequal size) double hung windows for the lower floor [Image A-27] and casements in the short elevations of the projecting entry pavilion [Image A-28].

The window sashes are mostly in good condition, with minor structural failure and rail deterioration that is often seen in older windows. The current sash condition and the extent of original antique glass suggest that the windows are excellent candidates for restoration. [Image A-29]  
Windows in similar condition and age have been successfully restored. [Image A-30]



**Image A-27:** Lower level windows are “cottage style”, or double-hung with top sash shorter than the bottom sash



**Image A-28:** Windows at the return walls of the entry pavilion are wood casement type



**Image A-29:** Existing windows have glazing putty failure but are generally structurally sound



**Image A-30:** An example of a recently restored window with new storm window

### **DOOR OBSERVATIONS**

The style and condition indicate that the existing doors are all original to the building. They vary in condition – the main entry doors are in good condition with original hardware, while the lower level door on the south elevation is in poor condition at the bottom rail and lower portion of the stiles.

### **RECOMMENDATIONS**

The existing window sashes should all be restored via the following approach:

- Remove sashes from window openings and install temporary plywood sheathing to protect the interior. Transport sashes to shop for repair.
- Repair deteriorated window sashes (off site, in shop) using two-part epoxy system / replace stiles and rails damaged beyond repair.
- Replace cracked or broken window panes with new to match the original glass.
- Replace damaged/deteriorated muntins with new to match existing.
- Remove all cracked and deteriorated window putty and re-glaze.
- Scrape, sand, and paint restored window sashes.
- Reinstall sash.
- Provide and install historically appropriate, operable, exterior storm windows at all windows. Storm windows will protect the newly restored primary windows, extending their life, and providing thermal and infiltration improvement to the windows

The existing door openings should all be restored via the following approach:

- Repair existing wood doors using two-part epoxy system/replace sections of wood damaged beyond repair. Scrape, sand, and repaint using color determined by historic paint analysis. Install new, historically appropriate door hardware, including panic bars at entry doors and lockset.

Overall:

- Restore existing shutters, re-securing all loose wood louver blades. Scrape, sand, prime and paint using appropriate lead-containing paint management procedures.
-



## CLOCKFACE

### OBSERVATIONS

The 2008 restoration of the clockface when the new gold numerals and ticks were installed has held up well and no work appears necessary at this time. [Image A-31]



**Image A-31:** The existing clock faces restored in 2008 remain in good condition

## B) INTERIOR CONDITIONS ASSESSMENT

### MEETING HALL

The interior of the Warwick Unitarian Church is as rich with character-defining features of the Greek Revival style as the exterior. For this building it is a simple elegance. The interior layout is based on a formal symmetry that is itself a hallmark of the style. Just as there are two entrances at the façade, this arrangement continues inside with two passage doors from the lobby/narthex to the main assembly space, where there are 2 aisles that align with the doors. [Images B-01, 02]

Interior features are further symmetrically composed within the space – the pews, the chandelier, the raised dais with a large central arch as a focus. Stairs to a gallery at the rear of the space are also symmetrically arranged, one on each side of the space. The interior is spare, with the only ornamentation being fully in character with the Greek Revival style.

The interior features are mainly all original, intact, and in remarkably good condition – a testament to diligent care and maintenance. [Image B-03] Details are a simple carpentry interpretation of the style, devoid of carving and instead relying on an understated layering of geometric assemblies. [Image B-04]



**Image B-01:** View of the layout of the main assembly space, looking West



**Image B-03:** Interior features remain intact and well-kept



**Image B-02:** View of the layout of the main assembly space, looking East



**Image B-04:** Understated geometries in the interior details.



Other interior highlights include the tracker organ that was purchased from the Brattleboro, Vermont Unitarian Church in 1922 and remains in an operating condition [Image B-05] and the central chandelier, gifted from the Northfield Unitarian Church in 1915. [Image B-06]

The varnished match board ceiling is today a distinguishing element of the space, but evidence indicates that this was not original to the building, and according to historical accounts the wood was installed over the original plaster in 1891. Whether this was installed to secure a cracking plaster ceiling, or as an update in style, is unknown.

### RECOMMENDATIONS

Very little is required for repairs to the interior of the existing meeting hall space. There is some minor deterioration of plaster caused by roof leaks that should be patched and painted, but the plaster is stable for the most part. [Image B-07]



Image B-06: Central chandelier, gifted from Northfield Unitarian Church.



Image B-05: Tracker organ, purchased from the Unitarian Church in Brattleboro, Vermont.



Image B-07: Interior plaster disruption betraying water damage and roof leakage

## GROUND FLOOR

### OBSERVATIONS

The rear (west) three-quarters of the ground floor level of the meeting house have been simply finished in a utilitarian manner to provide a less formal multi-purpose assembly space such as Sunday School and fellowship gatherings. There is a small raised platform that would have served as a performance stage [Image B-07], and kitchen and rest room facilities were once active. Finishes are a mixture of vertical board siding, plaster and wallpaper, and wood wainscot. Floors are wood planks on a joisted wood frame over a crawl space. Areas of concern on the flooring have evident settlement and “bounce” that indicates joist deterioration. The attached report section from the structural engineer addresses this condition and recommendations in more detail. Ceilings are finished with tongue and groove boards, painted. The building’s site apparently guided the planning decision to place the finished space at the rear of the building, as the sloping of the site allows for fairly large windows, bringing daylight and natural ventilation to the ground floor, and a nearly “walk-out” condition to grade. [Image B-08] At the front end of the building, where the site slope prevents windows, the ground floor remains an unfinished cellar to the building.

The ground floor also provided space for the building’s mechanical systems – first a wood-fired cast iron furnace labeled “Barstow Furnace for Wood 1879” [Image B-09] now superseded by an oil-fired Oneida Royal furnace with Beckett burner, installation date unknown [Image B-10]. A 250-gallon oil tank is located at the front cellar. The furnace delivers hot air to the first floor through ducts at the ground floor ceiling to floor grilles in the meeting house floor.



**Image B-07:** Small entertainment platform in multi-purpose assembly space



**Image B-08:** Assembly space illuminated by tall windows granted by site grading



**Image B-09:** Wood-fired cast-iron furnace, “Barstow Furnace for Wood 1879”



Assessment of the conditions of the existing heating system was beyond the scope of this report, but it is assumed that this system can work to provide at least a level of warmth to the building. Destructive exploration was not done to confirm whether insulation exists in the exterior walls; it is assumed there is none, as it is clearly obvious that there is no insulation in the roof or attic.

The ground floor is accessed from the first floor via a steep and narrow stair that does not conform to modern building codes for egress.

### RECOMMENDATIONS

As Structures North has stated in their assessment report, some more investigation requiring removal of flooring is required for a full inspection of the floor framing condition. From what is visible in areas of missing floor boards, it is very likely that moisture from the poorly ventilated crawl space has contributed to deterioration and perhaps insect damage to existing floor joists. **[Image B-11]** The weakened floor, coupled with the poor egress to the basement reinforces the current policy that the Town has which prevents occupancy. More information is needed on the floor condition. The crawl space condition could be improved by introducing a moisture barrier to reduce ground moisture to the structure.

Egress could be improved somewhat by some modification to the stair via better handrails, but the dimensional restriction is difficult to overcome without a major changes to the structure that would impact the historic fabric. The egress door on the east side could be improved with hardware changes and modifications to steps and landing.

o



Image B-10: Current furnace model, Oneida Royal



Image B-11: Deteriorated floor

## C) STRUCTURAL REPORT, STRUCTURES NORTH CONSULTING ENGINEERS



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DRAFT 24 July 2025

Doug Manley, AIA, LEED AP  
Spencer Preservation Group  
41 Valley Road, Suite 211  
Nahant, MA 01908

Reference: Warwick Unitarian Church, Warwick, Massachusetts  
Exterior and Interior Conditions Assessment

Dear Doug:

On July 8, 2025, we made a visit to the Warwick Unitarian Church in Warwick, Massachusetts to conduct an exterior and interior structural conditions assessment of the building. This report highlights those conditions, our recommendations for repair, and the priority levels of each condition identified. Please note that the east elevation faces Winchester Road and will be referred to as such throughout the entirety of this report.



Figure 1: Overhead view of Warwick Unitarian and location of survey  
Maps data: Google Imagery ©2025 Airbus, Maxar Technologies

### GENERAL DESCRIPTION

The Unitarian Church of Warwick is a timber framed structure with a granite stone foundation at the east end and a concrete block or concrete foundation at the other three elevations. Upon entering one of the two doors on the east elevation, you find yourself in the foyer which then opens up into the church's meeting space. Sitting over the top of the foyer and reaching into the meeting space is the second floor balcony with two rows of stepped benches for seating. Below the meeting space and the foyer is a mostly accessible basement. The west end of the basement had some floor and wall

finishes, appearing as though the space was used for gatherings or classes. Towards the northwest end of the basement, there were abandoned kitchen supplies and equipment. Moving towards the east side of the basement, the finishes went away, and the structure was mostly exposed below the foyer.

Travelling up from the meetinghouse to the balcony, one can access the roof and bell tower through a small hatch. In the attic, we could see the roof structure, composed of several roof trusses, spanning north-south, along with purlins lining east-west. The ceiling joists span between the trusses and are lined with lath and plaster on their bottom face, which is then concealed with wood paneling bead board, as seen from the meeting space.

The church tower consists of three different tiers or distinguishable sections in framing. There is the (1) clock section, (2) bell section, and (3) spire section, from bottom to top. The clock section was mostly observable from the stairs that climb to the bottom of the bell deck. At the bell section, we observed the wooden bell cradle, the interior of the bell tower louvers, and some of the wood balcony that outlines the exterior perimeter of the bell section. We could not document the conditions of the spire framing since there was an existing ceiling that obstructed our view of the spire's underside.

During our visit, we documented the existing structural conditions we observed while on site. Based on our findings and recommendations, we will designate each item with a priority level that will fall into one of the three categories:

*Priority Levels:* We have grouped each condition into a priority level, which ranges from immediate repair to monitor and maintain:

*"Priority #1"* conditions are potentially hazardous to the public as well as the overall stability of the structure and should be resolved within the next 1-2 years.

*"Priority #2"* conditions are experiencing signs of deterioration and movement, though they have not reached the same level of severity as Priority #1. However, the damages for Priority #2 have the potential to progress into more urgent matters if not maintained and resolved of its deficiencies. Priority #2 damages should be repaired within the next 2-6 years and monitored for any changes in their condition that could elevate them to Priority #1.

*"Priority #3"* conditions are those that are not immediately putting the public nor the structure at severe risk and can therefore be delayed from repair for the next 6-8 years, however they should be monitored for worsening conditions.

## **EXTERIOR CONDITIONS**

The exterior of the church is clad in horizontal wood shingles and the water table is lined with wood trim. The main point of entry is at the east elevation (See Photo 1 of the Appendix), however, there is a door to the basement at the southwest corner of the building. Tall windows line the north, east, and south elevations, however the west elevation remains a tall, mostly plain gable end elevation with only a few window openings at the basement level.

### *East Elevation*

- At the east elevation, there are granite stone stair treads that lead up to the front doors of the church. The mortar between the stone joints are deteriorated and allowing water to pass through (Photo 2). Any water that passes through the stair treads will become trapped, creating an environment where it will freeze and thaw, exerting an outward force on the treads or the substructure of the stairs. Movement of the treads or water washing away the substructure will create an unstable condition in the long term, leading to more involved



methods of repair.

*The head and bed joints of the stone treads should be cut and repointed to prevent water from seeping in between the joints (Priority #1).*

- Below the north end doorway, the wood trim was partly removed, exposing the wood sill behind it (Photo 2). Both the trim and the sill were experiencing rot damage. We also noticed that towards the center of the east elevation, in between the two doors, the clapboards and door trim visibly sag towards the middle. This is an indicator of potentially more sill rot damage or foundational movement.

*All of the wood trim should be removed to allow for further assessment of the sill plate. If permitted, our office can perform a series of resistance drill tests, which is a nondestructive test that allows us to determine the location and extent of rot. If the rot is present throughout the sill, the sill will ultimately need to be replaced until solid wood is found. Further investigation should also be conducted at the middle post between the entry doors to ensure the post is in good condition (Priority #1).*

- The northeast corner exterior post of the foyer appears to be crushing down on top of the sill (Photo 3). We were able to see the crushing behavior through the trim work on the exterior and along the sill from the interior. The trim work at this location is also covered with algae and appears to be exposed to water and receive little sun. The sill is likely rotted at this location as well.

*The trim work will need to be removed and the sill replaced at this location with a seasoned white oak timber. The post end will also have to be checked for any potential rot at its connection with the sill (Priority #1).*

- At the southeast exterior corner of the main building, the sill appeared to be rotated backwards, while the granite stone foundation was leaning forwards (Photo 4). If the sill was rotting along its back bottom face, the sill would rotate backwards, causing the granite stone to push out. While inside the basement, it was difficult to access the backside of the sill to check for rot damage.

*This area should also be investigated further, to check for sill rot and its severity. If the sill does need to be replaced, the shifted foundation stone should also be reset to allow for an even bearing surface for the new sill to sit on (Priority #1).*

### *South Elevation*

- At the southeast end of the building, as well as the northeast end, there is a concrete slab on grade that was originally installed to help shed water from the roof out and away from the building (Photo 5). At both ends of the building, the concrete slab is cracked and appears to have shifted and settled. Though not a direct structural concern, if water becomes trapped between the slab and the building or water is redirected towards the building, structural conditions can develop.

*The concrete slabs should be monitored for worsening conditions and ineffectiveness for shedding water away from the building (Priority #3).*

- Starting from the end of the concrete slab, the foundation changes from granite stones to concrete, with green painted parging over the exterior surface. Above the concrete, but below the water table, the walls are timber framed and covered with horizontal, painted

wood planks (Photo 6). We found that much of the paint on both the wood planks and the concrete were peeling, either due to incompatibility, old age, or both.

*The paint should be stripped and new, compatible paint reapplied providing protection and breathability to the wood boards. The paint over the concrete parging should be monitored to ensure the paint is not trapping the water and causing deterioration of the concrete foundation (Priority #2).*

#### West Elevation

- The most structurally concerning condition of the building takes place at the west exterior elevation. We found that the wood sill of the basement, which supports the basement wall and entire gable end wall above, is completely out of plumb (Photo 7). On the south end, the sill bows out 2" and on the north end, the sill bows out 3". We are assuming that the middle portion of the sill, which only has a ½" overhang over the foundation is the most accurate positioning of how the sill was originally meant to sit. The outward bow of the sill impacts the rest of the wall above. In fact, this condition appears to have been an ongoing concern considering there were already two rods penetrating through the gable end wall to hold back a portion of the wall with L- shaped "pattress plates." The tie rods span all the way through the building to the east end, where they terminate through the side of a first floor framing beam. The pattress plates are located at the first floor location, over the wood trim band on the exterior. Though unknown when these tie rods were first installed and to what extent the condition was in when they were first installed, the rods are likely helping reduce the condition, even if just minimally. Considering the small size of the plates, they only work at pulling in a very localized area of the center of the wall.

*The stability of the sill at the basement level needs to first be investigated further for potential rot conditions. If the sill is rotting, this may help identify why the wall is bowing and the sill is moved out significantly at its ends. However, if the sill proves to be in good condition, we may need to expose a thin strip of the exterior siding to determine post and brace locations, sizes, and conditions. We do not want to remove too much of the siding because it may be acting as part of the structural system now that the wall is so far out of plumb. Upon further investigation, we should be able to determine whether the wall can be stabilized in place (globally, rather than the localized solution already implemented) or if part of the wall needs to be removed and rebuilt (Priority #1).*

- We identified some step cracking in the concrete masonry units (CMU) of the foundation (Photo 8). Similar to the south elevation, the original stone foundation was replaced with a new concrete/CMU wall, however, unlike the south, the foundation face was not parged over. The lack of parging allowed us to see the step cracks at both ends of the west wall. This could be a result of concentrated loads from the movement in the sill.

*The cracks should be monitored for further movement and ultimately should be patched over once further investigation takes place on the timber wall above (Priority #3).*

- At the top of the gable end wall, we identified two locations where the wood trim appeared to be rotting. In fact, at one location along the fascia board, we could see daylight from inside the attic, suggesting that the rot condition had worsened to the point that it was allowing water and animals inside the attic.

*The rotted boards should be removed and replaced with pressure treated members. However, further surveying should take place at the roof to determine if poor flashing, lack of*

*shingles, or lack of sunlight exposure, etc. encouraged the rot in the trim to begin with (Priority #2).*

#### *North Elevation*

- The north elevation foundation was also replaced at an earlier point with concrete. However, the foundation steps out about 6"-8" and is covered with flashing over its top surface (Photo 9). Towards the west end of the building, the flashing leans back towards the structure, inviting water to funnel into the building. This is especially concerning because the north elevation is completely covered with brush, making it difficult for wet surfaces to dry off naturally from the sun. Hence, the majority of the foundation and wood board paneling below the meetinghouse level are covered in algae (Photo 10). Interestingly, some of the wood boards are also bowing outwards.

*The flashing should be re-sloped to drain water away from the building. Some of the bowed boards should be removed and the framing evaluated further for potential rot or movement (Priority #1).*

- Towards the northeast corner of the meetinghouse section of the building, the sill and stonework of the original foundation are bulging out and also covered in algae (Photo 5).

*Water management is critical along this elevation and should be addressed before permanent repairs are made (Priority #1). After doing so, the bowed portion of the foundation should be dismantled and reset (Priority #2).*

- The soffit board along the roofline had two areas where there was a hole either from rot or from animals nesting.

*The damaged soffit should be removed and replaced in like kind (Priority #2).*

### **INTERIOR CONDITIONS**

The interior of the church consists of a mostly accessible basement, a main floor meeting space, a second floor balcony, and an attic and bell tower, most of which we were able to view during our survey.

#### *Basement/First Floor Framing*

- The least accessible portion of the basement was at the east end. There is a newer concrete wall that extends about 4' up from grade with stacked stones that reach the rest of the way up to support the bearing wall above that separates the foyer from the meeting space. Further east of this wall was difficult to observe. However, we did see at the southeast corner of the building, where the sill was rolling back and the foundation stone was leaning forward on the exterior, the top of the foundation stone appears to be uneven and minimally supporting the bottom of the sill (Photo 12).

*Once it is confirmed that there is no rot along the underside of the sill and the foundation stone is reset, the uneven bearing surface should be filled with grout and stones to create a smooth surface for the sill (Priority #1).*

- The beam line adjacent to the concrete wall is supported by vertical wood posts and braces. One of these posts is completely unsupported and is suspended from the beam (Photo 13).



*To engage the post and provide needed support for the beam at this location, the dry-laid stone pier that has since collapsed should either be repaired or replaced with a new CMU block pier. Any gaps between the bottom of the post and top of the pier should be shimmed tight (Priority #1).*

- The next beam line is also supported by vertical wood posts, but the framing is mostly concealed with horizontal plank sheathing board on the east side and lath and plaster on the west side. From what we could see, there is a wood beam that sits in the soil, running parallel with the first floor beam above, supporting the bottom of the posts. The beam and bottom of the posts are rotting due to their proximity to the soil (Photo 14).

*The sheathing will need to be removed along the bottom strip of the framing to allow for further evaluation of the beam and bottom of posts (Priority #1). Depending on severity, the beam may need to be replaced in full or removed entirely and new footings poured to carry the post loads.*

- All of the first floor joists are notched at their end connections. Though we did not see any signs of splitting in the joists, this can be a common occurrence in notched members due to the stress concentrations at the corner.

*The joists and beams should be monitored for any splitting at their ends due to the notched condition (Priority #3).*

- At the south end wall, it appears that an opening was made previously, but is now partially covered with exterior wood planks. Flanking the opening are two short lally columns that reach from the top of the concrete foundation to the bottom of the first floor beam. The columns have thin cap plates and appear to be rusting at their bottom interface with the concrete (Photo 15).

*These lally columns should be replaced with coated, tube steel posts, with properly sized cap and base plates (Priority #2).*

- In the center of the basement, there is a hallway running north-south, with an undulating wood floor that is likely supported by sleepers. The same up and down movement in the hallway is widely apparent in the west end room as well. The floor dips down at least 6" near to the partition wall that separates the hallway from the west room (Photo 16). Additionally, the columns in the west room, which support the floor bays above that carry the organ and podium, are all shifted up or down and tilted (Photo 17).

*The floor sheathing in the basement should be partially removed to allow for further investigation of the column footings and condition of the basement floor framing (Priority #1). If footings are not present, we recommend that new ones be installed and that the floor framing in the basement be removed and reframed with pressure treated members, depending on the use of the basement.*

- At the west end, there is a partition wall that runs perpendicular into the interior face of the west wall (Photo 18). We saw a crack at the corner between these two walls, indicating the outward movement of the west wall, however we could not identify if it was recent damage or existing.

*The crack should be monitored for worsening conditions (Priority #3).*

### *Meeting House/Gathering Space*

- On the south side of the meeting house, we found some signs of past water damage over one of the windows (Photo 19).

*This should be monitored for worsening conditions. If water is actively leaking in this area, a temporary patch should be installed and our office informed so we can develop a permanent repair (Priority #3).*

- At either end of the second floor balcony, we found some signs of diagonal shear cracks developing in the plaster and slight bowing of the plaster. We believe this behavior is related to some settling of the balcony (Photo 20).

*This condition should be monitored for worsening conditions (Priority #3).*

- At the center of the balcony, there is a column that runs from the bottom of the ceiling to the top of the bearing wall (Photo 21). We believe that this column carries the midspan of the truss above, which carries part of the bell tower. The column is slightly out of plumb and appears to be “punching” through the wood bead board ceiling. The ceiling is likely deflecting around the column due to its age and not an immediate structural concern.

*The ceiling deflection and tilt of the column should be monitored for worsening conditions (Priority #3).*

- The undulations of the meeting house floor are very noticeable and are related to the movement in the supports identified in the basement.
- We also found that some of the bead board ceiling is bowing and coming loose. From the attic we were able to see that the original ceiling was lath and plaster and the bead board was fastened directly over it. If the lath and plaster is coming loose, the only barrier is the bead board and it is not designed to carry the extra load.

*Before opening the building up to the public, the loose bead board should be dismantled and the lath and plaster removed before refastening the bead board in place. (Priority #2).*

### *Attic/Bell Tower*

- We noted that the roof purlins are notched where they meet the trusses (Photo 22). Similar to what we mentioned for the notched first floor framing beams, notches at the end connections of members can often lead to cracks from the localized stress concentrations, though fortunately, there are no existing splits.

*The end conditions of the purlins should be monitored for any change in their end connections (Priority #3).*

- There is a brick masonry chimney located at the northwest corner of the building (Photo 23). The chimney is concealed in finishes throughout the building, except where it penetrates through the roof. Where the chimney is exposed, the mortar joints look deteriorated and the concrete cap looks cracked. Please note that there was a second chimney at the southwest corner, but it has since been taken down to just below the roofline.

*The northwest chimney should be cut and repointed and the cap stone replaced in like kind. If the chimney is no longer in use, it can be capped and closed off entirely. (Priority #2).*

- The end rafter at the northeast side of the main gable end wall is pulled away at its connection, revealing part of its tenon (Photo 24).

*The further the tenon is pulled out, the more likely it will split at its connection point. This condition should be monitored for worsening behavior and re-supported (Priority #2).*

- At the belfry level of the bell tower, we found that some of the pegs that lock together the wood diagonal braces to the posts were missing (Photo 25).

*The pegs should be replaced with oak wood dowels, slightly oversized to allow a tight fit in the hole (Priority #2).*

- The wood plank ceiling of the belfry prevented us from observing the spire framing. We did notice that at the edges of the ceiling there was debris poking through, suggesting that there were potentially birds nesting up there at some point. If birds were able to enter, then there may be an opening in the spire large enough for both birds and water to pass through.

*Eventually, part of the ceiling should be dismantled to allow for closer observation of the spire framing (Priority #3).*

- From the belfry level, we were able to see the condition of the wood railing that wraps around the tower. The connections appeared loose and the wood looked worn and rotted.

*The wood railing should be removed and replaced with a more rot resistant wood, matching the detail and original appearance of the existing railing. (Priority #2).*

### **Report Limitations**

This report is a summary of readily visible observations conducted during a single visit to the property. No finishes were removed at the time of our visit to expose hidden structure and no calculations have been performed to determine if the overall building complies with past or present building codes. This report is strictly limited to structural considerations noted. Other building systems were not reviewed, and they are beyond the scope of this report.

We hope that the above information is helpful in determining your next steps. If you require any further assistance, please do not hesitate to contact this office.

### **DRAFT**

Attachments: Appendix 1, 13-pages



**Photo 1**  
East elevation of the church

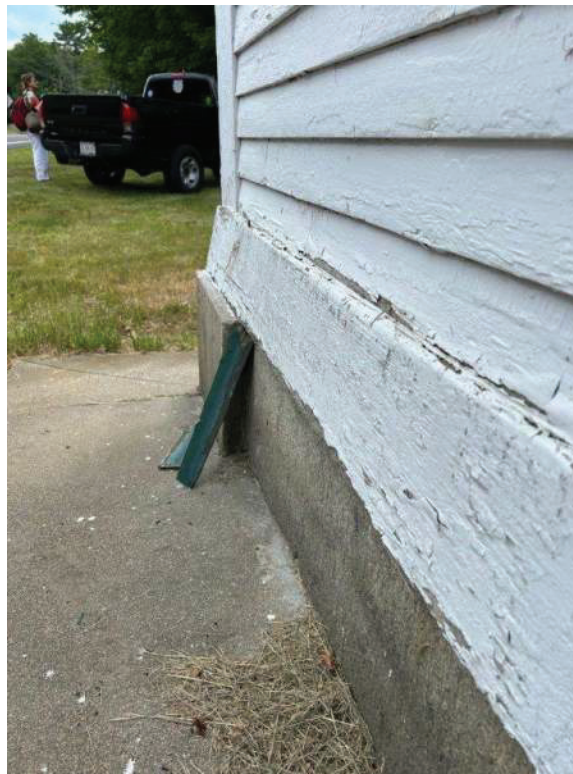


**Photo 2**  
Eroded mortar joints, damaged trim, and rotted sill plate





**Photo 3**  
Crushing and rotted sill plate



**Photo 4**  
Rotated sill and shifted foundation stone





**Photo 5**

Cracked concrete slab on grade at north elevation and bowing foundation



**Photo 6**

Peeling paint at south elevation



**Photo 7**  
Outward bowing west elevation with past wall reinforcement rods



**Photo 8**  
Step cracks at northwest corner of foundation





**Photo 9**

Sloped flashing over top of concrete foundation



**Photo 10**

Algae and brush covered north elevation





**Photo 11**  
Hole in soffit board



**Photo 12**  
Uneven bearing surface for sill plate contributing to rotation



**Photo 13**  
Unsupported post end



**Photo 14**  
Partially rotted beam in soil below wall





**Photo 15**  
Lally column with poor cap plate and rusting base



**Photo 16**  
Drop in basement floor





**Photo 17**

Tilt in basement column from undulation in basement floor



**Photo 18**

Crack revealing outward movement of west wall



**Photo 19**  
Past water damage over window



**Photo 20**  
Diagonal shear cracks at end of balcony



**Photo 21**  
Tilted column support at balcony



**Photo 22**  
Typical notch at roof purlin





**Photo 23**  
Chimney above roof line



**Photo 24**  
Roof rafter pulling out from mortise



**Photo 25**  
Missing peg from connection

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## **PART 3: PRESERVATION & REHABILITATION**



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## A) REGULATORY ANALYSIS

### CURRENT TAX ASSESSMENT:

The building has a current assessed value of \$477,900 and the land has an assessed value of \$36,200.

### SECTION B – BUILDING CODE SUMMARY:

#### **Narrative Building Code Analysis**

This section of the report briefly describes the applicability of the 10th edition of the Massachusetts State Building Code (2021 International Existing Building Code – with Massachusetts Amendments) and architectural access regulations (Massachusetts Architectural Access Board, or MAAB.)

### APPLICABLE CODES & STANDARDS (MODEL CODE BASIS) AS OF THE DATE OF THIS REPORT:

***International Existing Building Code (IEBC), Base Volume (2021) International Building Code with Massachusetts amendments).***

- Massachusetts State Building code (780 CMR), Ninth Edition, Base Volume (2015) International Building Code with Massachusetts amendments)
- International Energy Conservation Code, 2015 Edition (IECC)
- Massachusetts Board of State Examiners of Plumbers and Gas Fitters Regulations (248 CMR)
- Massachusetts Comprehensive Fire Safety Code (527 CMR 1.00 – 2012 NFPA 1: Fire Code with amendments)
- International Fire Code, 2009 Edition (IFC)
- Massachusetts Electrical Code (527 CMR 12.00 – 2014 NFPA 70: National Electrical Code with amendments)
- Massachusetts Architectural Access Board Regulations – MAAB - (521 CMR)
- Americans with Disabilities Act (ADA)



The purpose of the building code is to:

- Establish minimum requirements to safeguard public health, safety, and welfare
- Provide life safety from fire and other hazards to building occupants
- Protect the building from loss or damage due to fire or other environmental events
- Provide safety to fire fighters and emergency responders during emergency operations

In general, existing buildings are not required to retroactively conform to the current building code, except where existing health and safety conditions are considered hazardous by the local building official.

The International Building Code for new construction (IBC) would be referenced for any substantial renovation of the existing building, or if a new addition were contemplated. Existing buildings are governed by the International Existing Building Code (IEBC).

The IBCEC divides work on existing buildings into “Repairs” and “Alterations.” “Repairs” are considered in-kind replacements of existing materials and systems and would be considered as guidelines for building maintenance. “Alterations” are categorized into three (3) levels depending upon the amount and scale of work involved.

“Repairs” can be described as the patching, restoration, or replacement of damaged materials, elements, equipment, or fixtures for the purpose of maintaining such materials and elements in good or sound condition with respect to existing loads or performance requirements.

**Level 1 Alterations** include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose.

**Level 2 Alterations** include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any building system, or the installation of any additional equipment.

**Level 3 Alterations** apply if the proposed work area exceeded 50 percent of the aggregate floor area of the building.

The recommended scope items of this report would be classified as Level 1 Alterations.

New building systems (mechanical, electrical, plumbing, fire protection, etc.), or upgrades to existing building systems, will need to conform to the building code for new construction per the International Building Code and Massachusetts Amendments.

#### RULES AND REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB):

Architectural access regulation in Massachusetts (521 CMR) are written to encourage making buildings and spaces barrier free to persons with physical or mental disabilities.

All new work including construction, reconstruction, alterations, remodeling, additions, and changes in use should conform to the access regulations. This means all additions, reconstruction, remodeling, and alterations or repairs to existing public buildings or facilities that require a building permit.

There are several “triggers” where work done will need to incorporate accessibility. Note that the guidelines below describe a minimum standard. Exceeding these requirements is at the discretion of the church.

If the building permit value of the work being performed amounts to less than 30% of the assessed building value and less than \$100,000, only new work or renovated spaces would be required to comply. The Town of Warwick tax assessment for fiscal year 2025 is \$477,900 (building only), so the 30% threshold would be \$143,370.

If the work value is under 30% of the assessed building value, but over \$100,000, the work must be made accessible and both an accessible entrance and rest rooms are required.

If the value of the work to be done is determined to be greater than 30% of the “full and fair cash value” of the building, then the entire facility would have to be made fully accessible. If spaces cannot be made accessible, a variance may be sought to allow their continued use by the public, or for exemption for certain uses.

Whether performed alone or in combination with each other, the following types of alterations are not subject to 521 CMR 3.3.1 and do not count towards the 30% trigger if the cost of the alterations is under \$500,000. When performing exempted work, a memo stating the exempted work and its costs must be filed with the permit application or a separate building permit must be obtained. Exceptions not counting towards the 30% trigger are:

- Alteration work which is limited solely to electrical, mechanical, or plumbing systems, to abatement of hazardous materials, or to retrofit of automatic sprinklers, and does not involve the alteration of any elements or spaces required to be accessible under 521 CMR.
- Roof replacement or repair, window repair or replacement, repointing, and masonry repair work.
- Work relating to septic system repairs, site utilities and landscaping.

However, if the above work alone or in concert with additional work exceeds the 30% trigger or \$500,000, then it is as if the work is not exempted. Note that the cost of work is tracked over a three-year span, so phased projects may be cumulative.

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## B) OUTLINE SPECIFICATIONS

### DIVISION 1 - SUMMARY

- Proposed work should be in accordance with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties

### DIVISION 2 - EXISTING CONDITIONS

- Demolish and remove designated pieces that are too deteriorated to be repaired and will be replaced

### DIVISION 4 - MASONRY

- Repoint interior and exterior of stone masonry at existing foundation
- Clean exterior granite foundation
- Repoint existing brick chimney; rebuild deteriorated parts
- Construct brick piers in basement
- Install new chimney cap
- Repoint granite steps at east entry

### DIVISION 5 - METALS

- Provide new structural columns in the basement to support first floor framing
- Provide miscellaneous hangers, rods, supports for framing repairs and reinforcement

### DIVISION 6 - WOOD, PLASTICS AND COMPOSITES

- Structural framing repairs and reinforcements as recommended in the Structural Engineering assessment report
- Repair deteriorated wood trim and replace any elements that are too deteriorated for repair with decay-resistant stable wood species
- Replace deteriorated or split wood clapboards
- Replace missing trim elements

### DIVISION 7 - THERMAL & MOISTURE PROTECTION

- Add insulation at attic floor
- Roof replacement: new replacement slate roof, ridges & rakes
- When re-roofing: 20 oz. copper drip edge at all eaves and rakes

### DIVISION 8 - OPENINGS

- Restore existing wood double hung windows, adding weather stripping, and hardware.
- Provide new aluminum storm windows at restored existing windows
- Restore existing wood stile and rail exterior doors

### DIVISION 9 - FINISHES

- Paint all windows and doors
- Paint all exterior siding and trim
- Paint all wall and ceiling surfaces within interior of building
- Patch existing plaster walls and ceilings

**DIVISION 22 - PLUMBING**

- Provide new restrooms at ground floor

**DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING**

- *If air conditioning is desired in the future, consider adding split system air conditioning to existing furnaces, utilizing existing ductwork for delivery*

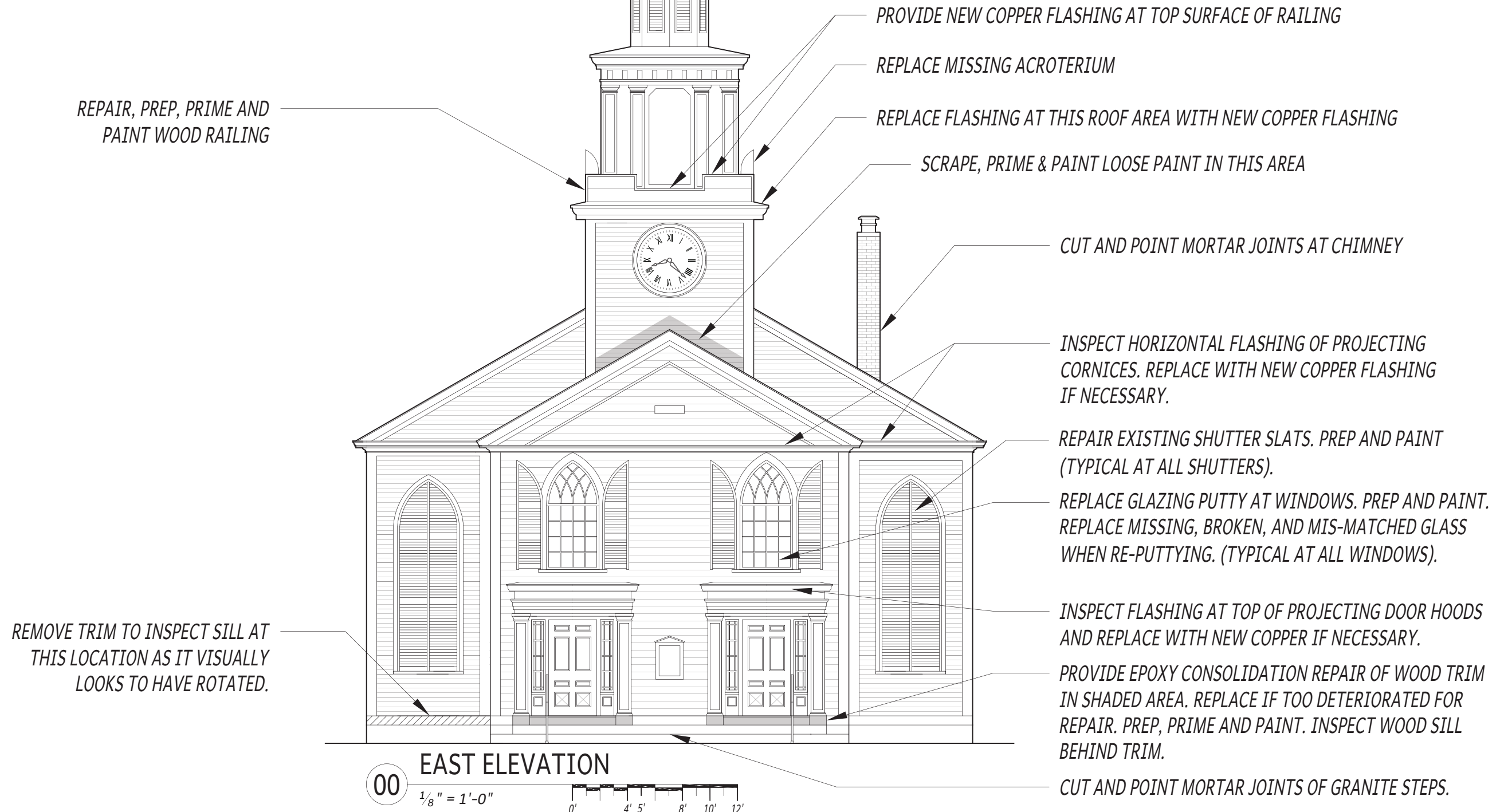
**DIVISION 26 - ELECTRICAL**

- Update exit and emergency lighting to meet current codes. *(Not required, but a good recommendation)*
- Install new fire alarm system

**DIVISION 31 EARTHWORK**

- Trim/cut trees on the north and west sides of the building

## C) RECOMMENDED TREATMENT DRAWINGS



**Spencer Preservation Group**  
PRESERVATION ARCHITECTS  
www.SpencerPreservationGroup.com

41 Valley Road | Suite 211  
Nahant, MA 01908  
(617) 227-2675

PREPARED FOR:

PROJECT:

**FIRST PARISH  
UNITARIAN CHURCH**  
WARWICK, MA

#0000

TITLE:  
ELEVATIONS

SHEET:

**A-1**



REPLACE MISSING ACROTERIUM

REPAIR, PREP, PRIME AND  
PAINT WOOD RAILING

SCRAPE LOOSE PAINT. PRIME AND  
AND PAINT. REPLACE ANY BADLY  
DETERIORATED CLAPBOARD.

PROVIDE NEW COPPER FLASHING  
AT TOP SURFACE OF RAILING

REPLACE FLASHING AT THIS ROOF  
AREA WITH NEW COPPER FLASHING

REPLACE EXISTING SLATE ROOF

REPAIR HOLE IN THE WOOD CORNICE HERE

CUT AND POINT MORTAR JOINTS  
AT CHIMNEY

NOTE: TRIM TREES ON THE NORTH SIDE  
OF THE BUILDING TO GENERALLY ALLOW  
MORE SUN TO DETER ORGANIC GROWTH  
ON SIDING AND TRIM.

REPAIR EXISTING SHUTTER SLATS. PREP AND  
PAINT (TYPICAL AT ALL SHUTTERS).

REPLACE GLAZING PUTTY AT WINDOWS.  
PREP AND PAINT. REPLACE MISSING, BROKEN,  
AND MIS-MATCHED GLASS WHEN RE-PUTTYING.  
(TYPICAL AT ALL WINDOWS).

REMOVE TRIM TO INSPACE SILL  
AND CORNER POST CONDITION.

CORRECT THE SLOPE OF FLASHING AT  
SILL TO DIRECT WATER AWAY FROM  
THE BUILDING

00

NORTH ELEVATION

1/8" = 1'-0"

0' 4' 5' 8' 10' 12'



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PREPARED FOR:

PROJECT:

#0000

**FIRST PARISH  
UNITARIAN CHURCH**  
WARWICK, MA

TITLE:  
ELEVATIONS

SHEET:

**A-2**

CUT AND POINT MORTAR  
JOINTS AT CHIMNEY

PROVIDE NEW COPPER FLASHING AT TOP SURFACE OF RAILING

REPLACE FLASHING AT THIS ROOF AREA WITH NEW COPPER FLASHING

REMOVE WOOD TRIM TO INSPECT  
SILL TO INSPECT FOR ROT AND  
ROTATION.

00 WEST ELEVATION

1/8" = 1'-0"



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PREPARED FOR:

PROJECT:

#0000

**FIRST PARISH  
UNITARIAN CHURCH**  
WARWICK, MA

TITLE:  
ELEVATIONS

SHEET:

**A-3**



REPLACE EXISTING  
SLATE ROOF

PROVIDE NEW COPPER FLASHING  
AT TOP SURFACE OF RAILING

REPAIR, PREP, PRIME AND  
PAINT WOOD RAILING

REPLACE MISSING ACROTERIUM

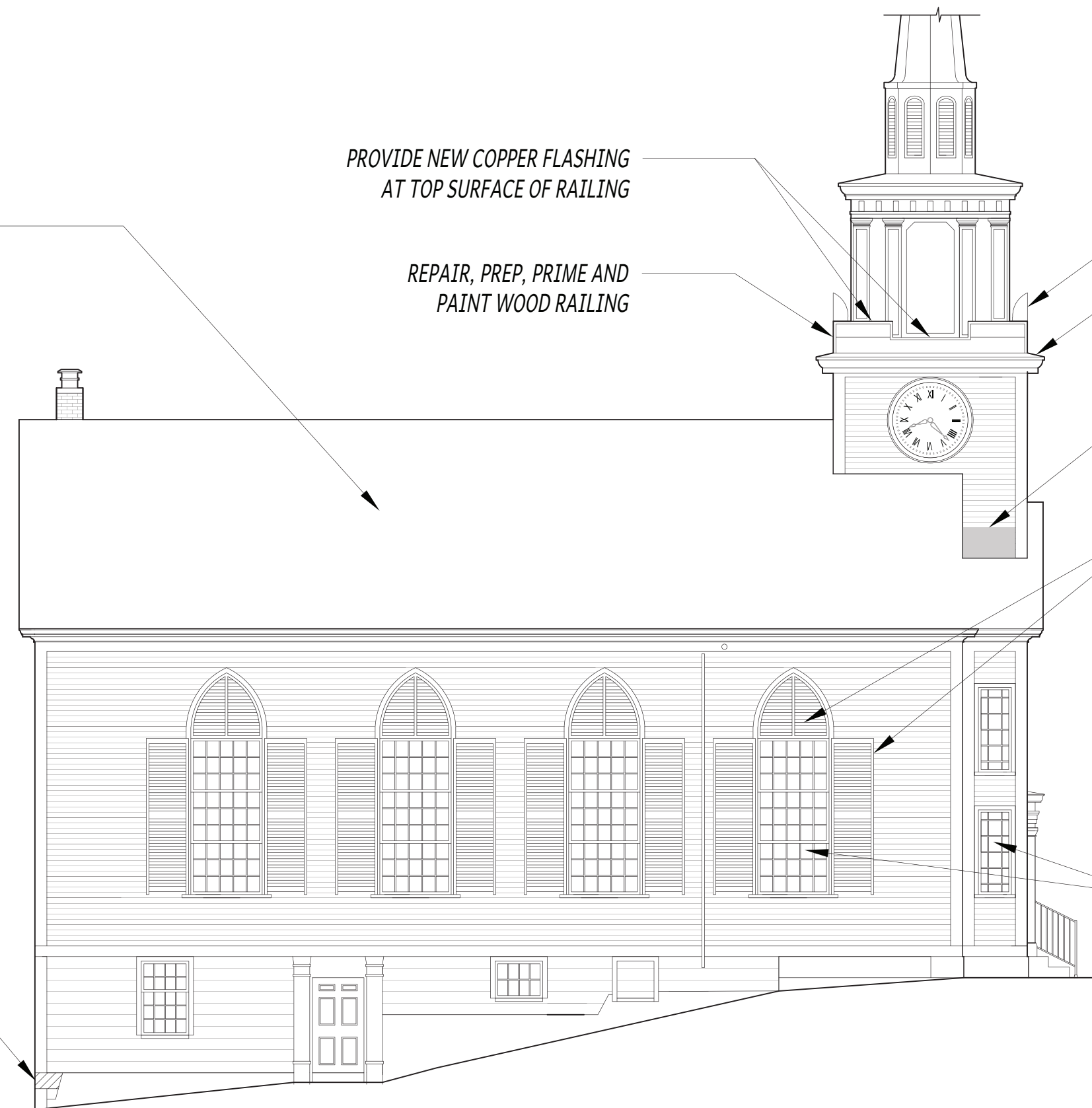
REPLACE FLASHING AT THIS ROOF  
AREA WITH NEW COPPER FLASHING

SCRAPE LOOSE PAINT. PRIME AND  
AND PAINT. REPLACE ANY BADLY  
DETERIORATED CLAPBOARD.

REPAIR EXISTING SHUTTER  
SLATS. PREP AND PAINT  
(TYPICAL AT ALL SHUTTERS).

REPLACE GLAZING PUTTY AT  
WINDOWS. PREP AND PAINT.  
REPLACE MISSING, BROKEN,  
AND MIS-MATCHED GLASS  
WHEN RE-PUTTYING.  
(TYPICAL AT ALL WINDOWS).

REPLACE ROTTED  
WOOD TRIM



00 SOUTH ELEVATION

$\frac{1}{8}" = 1'-0"$

0' 4' 5' 8' 10' 12'



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PREPARED FOR:

PROJECT:

#0000

**FIRST PARISH  
UNITARIAN CHURCH**  
WARWICK, MA

TITLE:  
ELEVATIONS

SHEET:

**A-4**

## D) OPINION OF PROBABLE COST

The following *Cost Estimate* attempts to outline a preliminary budget for the treatment recommendations, discussed in the *Conditions Assessment* portion of this report and illustrated on the *Recommended Treatment Drawings*.

The treatment recommendations for the restoration of the Warwick Unitarian Meetinghouse have been broken out into three phases, prioritized based on their urgency.

**Phase One: Structural Repairs** - This first phase of work addresses the most urgent needs of the building that pertain to structural integrity and life safety concerns, such as the structural deficiencies in the basement and foundation (rotting sill plates, etc.) This phase of the project will include strengthening structural connections, replacing the wood shingle roof, replacing damaged wood sills, cutting and repointing of the entry steps, and first floor framing repairs.

**Phase Two: Window Restoration, Siding and Trim Repoints, and Painting** - This phase of work will primarily address the most vulnerable points in the building's envelope; the historic wood windows and the roof. This phase of the project will include restoring the wood windows and associated trim across the building, the addition of *operable* storm windows on the exterior, and replacing the roof.

**Phase Three: Interior** - This phase of work will address any remaining concerns at finishes and interior upgrades. This phase of the project will include the repair of wooden shutters across the building, restore plasterwork and interior paint at the ground and first floors, and replace the missing acroterium at the belfry.

These three phases are estimated to cost as follows, including contingency, escalation, and architectural/engineering fees:

**Phase One** (to be completed in 1-2 years): **\$201, 163**

**Phase Two** (to be completed in 2-6 years): **\$882,241**

**Phase Three** (to be completed in 6-8 years): **\$51, 425**

The final category of treatment recommendations is called **Preservation Ideals**. These are recommendations that could be undertaken in order to restore the First Parish Meetinghouse to its intended design, using traditional methods and materials. The recommendations listed in this category could be broken out into smaller, more manageable projects as the town obtains funding. These recommendations are estimated to total **\$46,585**.





## Unitarian Church Building Warwick, MA



Spencer Preservation Group  
PRESERVATION ARCHITECTS

October 6, 2025

|                                           |                                                                  | (1-2 Years) | (2-6 Years) | (6-8 Years) |             |         |
|-------------------------------------------|------------------------------------------------------------------|-------------|-------------|-------------|-------------|---------|
| DIV. 01 - GENERAL REQUIREMENTS            |                                                                  | PHASE 1     | PHASE 2     | PHASE 3     | PRES. IDEAL | REMARKS |
|                                           | Scaffolding, Disposal, Access, & General Equipment               | \$20,000    | \$60,000    | \$10,000    | \$10,000    |         |
| SUBTOTAL                                  |                                                                  | \$20,000    | \$60,000    | \$10,000    | \$10,000    |         |
| DIV. 04 - MASONRY                         |                                                                  | PHASE 1     | PHASE 2     | PHASE 3     | PRES. IDEAL | REMARKS |
|                                           | Repoint brick chimney                                            |             | \$4,550     |             |             |         |
|                                           | Replace chimney cap                                              |             | \$1,000     |             |             |         |
|                                           | Repoint granite steps                                            | \$1,500     |             |             |             |         |
|                                           | Grout north sill                                                 | \$2,000     |             |             |             |         |
|                                           | Provide pier support for unsupported post at the east end        | \$2,500     |             |             |             |         |
| SUBTOTAL                                  |                                                                  | \$6,000     | \$5,550     |             |             |         |
| DIV. 05 - METALS                          |                                                                  | PHASE 1     | PHASE 2     | PHASE 3     | PRES. IDEAL | REMARKS |
|                                           | Replace lally columns with galv steel, with base plates and caps | \$5,000     | -           | -           | -           |         |
| SUBTOTAL                                  |                                                                  | \$5,000     |             |             |             |         |
| DIV. 06 - WOOD, PLASTICS, AND COMPOSITES  |                                                                  | PHASE 1     | PHASE 2     | PHASE 3     | PRES. IDEAL | REMARKS |
|                                           | Repair wood shutters across building                             |             |             |             | \$12,000    |         |
| EAST ELEVATION                            |                                                                  |             |             |             |             |         |
|                                           | Repair sill adjacent to north door, including trim repair        | \$8,000     |             |             |             |         |
|                                           | Repair sill at north corner                                      | \$10,000    |             |             |             |         |
|                                           | Repair sill at southeast corner                                  | \$10,000    |             |             |             |         |
| WEST ELEVATION                            |                                                                  |             |             |             |             |         |
|                                           | Repair sill condition                                            | \$16,000    |             |             |             |         |
|                                           | Repair evident holes at top of gable                             | \$1,000     |             |             |             |         |
| NORTH ELEVATION                           |                                                                  |             |             |             |             |         |
|                                           | Repair soffit and cornice                                        | \$1,000     |             |             |             |         |
| INTERIOR                                  |                                                                  |             |             |             |             |         |
|                                           | Repair beam and foundation currently sitting on grade            | \$8,000     |             |             |             |         |
|                                           | Reframe sagging flooring at the basement level                   | \$40,000    |             |             |             |         |
|                                           | Secure areas of sagging and loose ceiling boards (Meeting Space) | \$2,500     |             |             |             |         |
| BELFRY                                    |                                                                  |             |             |             |             |         |
|                                           | Repair wood railing                                              |             | \$1,200     |             |             |         |
|                                           | Replace missing acroterium                                       |             |             |             | \$800       |         |
| ATTIC                                     |                                                                  |             |             |             |             |         |
|                                           | Replace some missing pegs in the frame                           | \$1,000     |             |             |             |         |
| SUBTOTAL                                  |                                                                  | \$97,500    | \$1,200     |             | \$12,800    |         |
| DIV. 07 - THERMAL AND MOISTURE PROTECTION |                                                                  | PHASE 1     | PHASE 2     | PHASE 3     | PRES. IDEAL | REMARKS |
|                                           | Selectively replace clapboard siding across building             |             | \$4,000     |             |             |         |
|                                           | Install insulation at attic floor                                |             | \$17,550    |             |             |         |
|                                           | Selective replacement of copper flashing @ steeple               |             | \$20,000    |             |             |         |
|                                           | Replace existing slate roof with new                             |             | \$275,600   |             |             |         |
|                                           | Adjust sill flashing to pitch away from sill @ north elevation   | \$2,500     |             |             |             |         |
| SUBTOTAL                                  |                                                                  | \$2,500     | \$317,150   |             |             |         |

| DIV. 08 - OPENINGS |                                                                      | PHASE 1 | PHASE 2  | PHASE 3 | PRES. IDEAL | REMARKS |
|--------------------|----------------------------------------------------------------------|---------|----------|---------|-------------|---------|
|                    | Repair & restore double-hung, 8 over 12, wood windows                |         | \$24,000 |         |             |         |
|                    | Repair & restore triple-hung, wood windows @ sanctuary               |         | \$48,000 |         |             |         |
|                    | Repair & restore casement windows @ entry pavillion                  |         | \$12,000 |         |             |         |
|                    | Repair & restore fixed sash windows                                  |         | \$3,000  |         |             |         |
|                    | Install exterior operable aluminum storm windows @ 8 over 12 windows |         | \$4,800  |         |             |         |
|                    | Install exterior operable aluminum storm windows @ sanctuary         |         | \$9,600  |         |             |         |
|                    | Install exterior operable aluminum storm windows @ entry pavillion   |         | \$2,400  |         |             |         |
|                    | Install exterior aluminum storm windows @ fixed sashes               |         | \$600    |         |             |         |
|                    | Repair & restore entry doors and sidelights                          |         | \$16,000 |         |             |         |

SUBTOTAL

|  |  |           |  |  |
|--|--|-----------|--|--|
|  |  | \$120,400 |  |  |
|--|--|-----------|--|--|

| DIV. 09 - FINISHES |                                                        | PHASE 1 | PHASE 2  | PHASE 3  | PRES. IDEAL | REMARKS |
|--------------------|--------------------------------------------------------|---------|----------|----------|-------------|---------|
|                    | Prep/paint clapboard siding.                           |         | \$40,000 |          |             |         |
|                    | Prep/paint exterior wood trim.                         |         | \$7,000  |          |             |         |
|                    | Patch/repair plaster wall @ first floor                |         |          | \$2,000  |             |         |
|                    | Patch/repair plaster wall @ ground floor               |         |          | \$2,000  |             |         |
|                    | Paint walls and trim @ first floor                     |         |          | \$10,000 |             |         |
|                    | Paint walls and trim @ ground floor                    |         |          | \$10,000 |             |         |
|                    | Prep/paint wood shutters                               |         |          |          | \$8,000     |         |
|                    | Prep/paint exterior wood trim @ clock tower and belfry |         | \$12,000 |          |             |         |

SUBTOTAL

|  |  |          |          |         |
|--|--|----------|----------|---------|
|  |  | \$59,000 | \$24,000 | \$8,000 |
|--|--|----------|----------|---------|

| DIV. 10 - SPECIALTIES |                                                                        | PHASE 1 | PHASE 2  | PHASE 3 | PRES. IDEAL | REMARKS |
|-----------------------|------------------------------------------------------------------------|---------|----------|---------|-------------|---------|
|                       | Renovate kitchenette to have operable sink, countertop, power, storage |         | \$12,000 |         |             |         |

SUBTOTAL

|  |  |          |  |  |
|--|--|----------|--|--|
|  |  | \$12,000 |  |  |
|--|--|----------|--|--|

| DIV. 22 - PLUMBING |                                        | PHASE 1 | PHASE 2  | PHASE 3 | PRES. IDEAL | REMARKS |
|--------------------|----------------------------------------|---------|----------|---------|-------------|---------|
|                    | Provide men's and women's toilet rooms |         | \$20,000 |         |             |         |

SUBTOTAL

|  |  |          |  |  |
|--|--|----------|--|--|
|  |  | \$20,000 |  |  |
|--|--|----------|--|--|

| DIV. 32 - EXTERIOR IMPROVEMENTS |                                      | PHASE 1 | PHASE 2 | PHASE 3 | PRES. IDEAL | REMARKS |
|---------------------------------|--------------------------------------|---------|---------|---------|-------------|---------|
|                                 | Trim trees along the north elevation | \$2,000 |         |         |             |         |

SUBTOTAL

|  |         |  |  |  |
|--|---------|--|--|--|
|  | \$2,000 |  |  |  |
|--|---------|--|--|--|

|                                        |  |             |           |          |          |
|----------------------------------------|--|-------------|-----------|----------|----------|
| SUBTOTAL                               |  | \$133,000   | \$583,300 | \$34,000 | \$30,800 |
| General Conditions: @ 10% +            |  | \$13,300    | \$58,330  | \$3,400  | \$3,080  |
| HARD COST SUBTOTAL                     |  | \$146,300   | \$641,630 | \$37,400 | \$33,880 |
| Overhead + Profit: @ 10% +             |  | \$14,630    | \$64,163  | \$3,740  | \$3,388  |
| CONSTRUCTION + ESCALATION              |  | \$160,930   | \$705,793 | \$41,140 | \$37,268 |
| Contingency: @ 10% +                   |  | \$16,093    | \$70,579  | \$4,114  | \$3,727  |
| Architecture/Engineering Fees: @ 15% + |  | \$24,140    | \$105,869 | \$6,171  | \$5,590  |
| PROJECT COST TOTAL                     |  | \$201,163   | \$882,241 | \$51,425 | \$46,585 |
| GRAND TOTAL:                           |  | \$1,181,414 |           |          |          |

**General Conditions:** These are indirect operational costs for this specific project. This would include all of the behind-the-scenes, administrative work occurring in the contractor's office that is associated with this project. This line plus the "Subtotal" is what we estimate the contractor would need to charge in order to break even.

**Overhead + Profit:** What is listed out in the various sections above is a rough idea of labor and material costs. At the end of the day, the contractor needs to make a profit on the project, and 10% is reasonable for a project of this size and scale.

Combined, the *Subtotal*, *General Conditions*, and *Overhead + Profit* make up what we believe the contractor would charge for the work, also referred to as the **Construction Cost Subtotal.**

**Contingency:** It is always a good idea to have a sum of money set aside for emergencies or concealed issues. Old buildings especially love to throw us curveballs and this contingency helps to absorb any unexpected or unpredictable hits to the budget.

**Architectural/Engineering Fees:** This is amount paid to SPG and our consultants to produce construction documents and perform construction administration services. The 15% in this column is an estimate of what these fees would be based on our history with projects of this size and scale.

**Project Cost Total:** Your estimated "all-in" investment for that phase of the project.

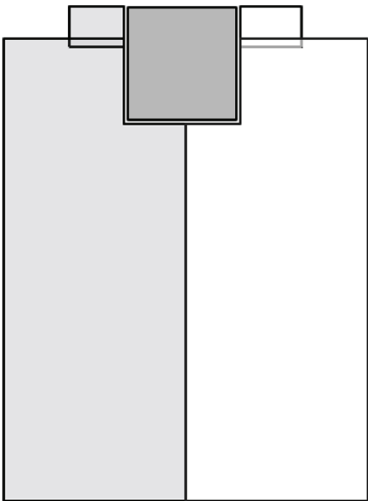
## PART 4: APPENDIX





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15 Orange Rd, Warwick, MA 01378



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

Report Details

Report: 66354730

**On-site verification of yellow shaded areas is needed. Details are on the Summary Page.**

Property Details

Total Roof Area = 3,108 sq ft  
Total Roof Facets = 5  
Predominant Pitch = 7/12  
Number of Stories >1  
Total Ridges/Hips = 47 ft  
Total Valleys = 0 ft  
Total Rakes = 105 ft  
Total Eaves = 125 ft  
Total Penetrations =3  
Total Penetrations Perimeter = 68 ft  
Total Penetrations Area = 156 sq ft

Report Contents

|                            |   |
|----------------------------|---|
| Images .....               | 1 |
| Length Diagram.....        | 4 |
| Pitch Diagram .....        | 5 |
| Area Diagram .....         | 6 |
| Notes Diagram .....        | 7 |
| Penetrations Diagram ..... | 8 |
| Report Summary .....       | 9 |

Contact: Spencer Preservation Group  
Company: Spencer Preservation Group  
Address: 41 Valley Rd Suite 211B  
Nahant MA 01908-1300  
Phone: 555-555-5555

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



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

An accuracy certificate is not available for this address due to image limitations.

## Images

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



North Side



South Side





East Side



West Side



## Length Diagram

Shaded areas should be verified

Total Line Lengths:

**Ridges = 47 ft**

Hips = 0 ft

Valleys = 0 ft

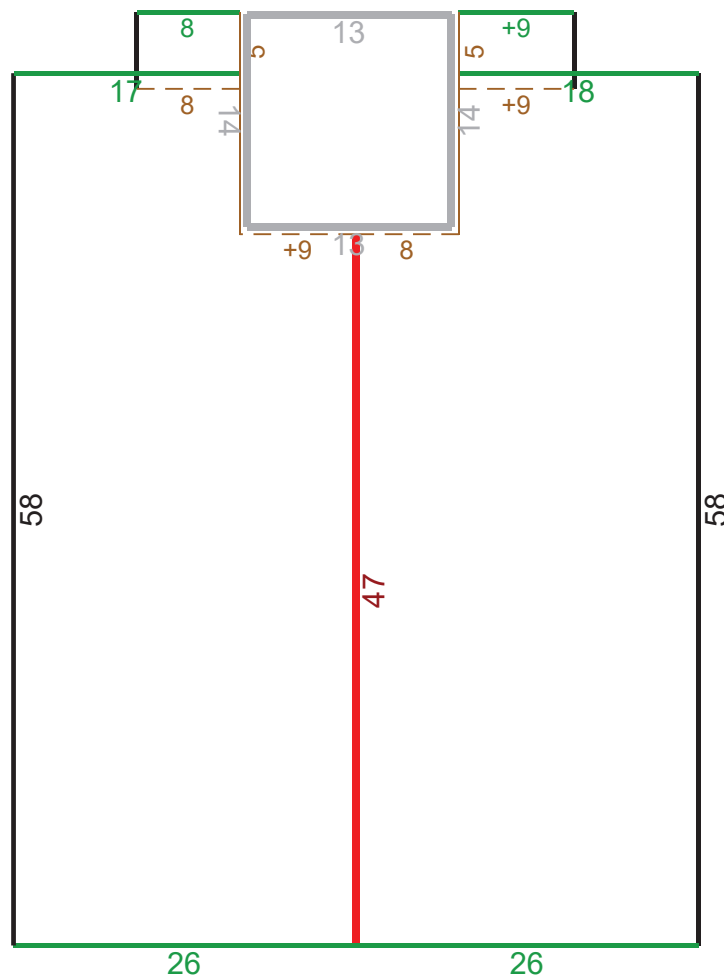
Rakes = 105 ft

Eaves = 125 ft

Flashing = 32 ft

Step flashing = 34 ft

**Parapets = 55 ft**



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**Note: On-site verification of yellow shaded areas is needed. Details are on the Summary Page.** 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).

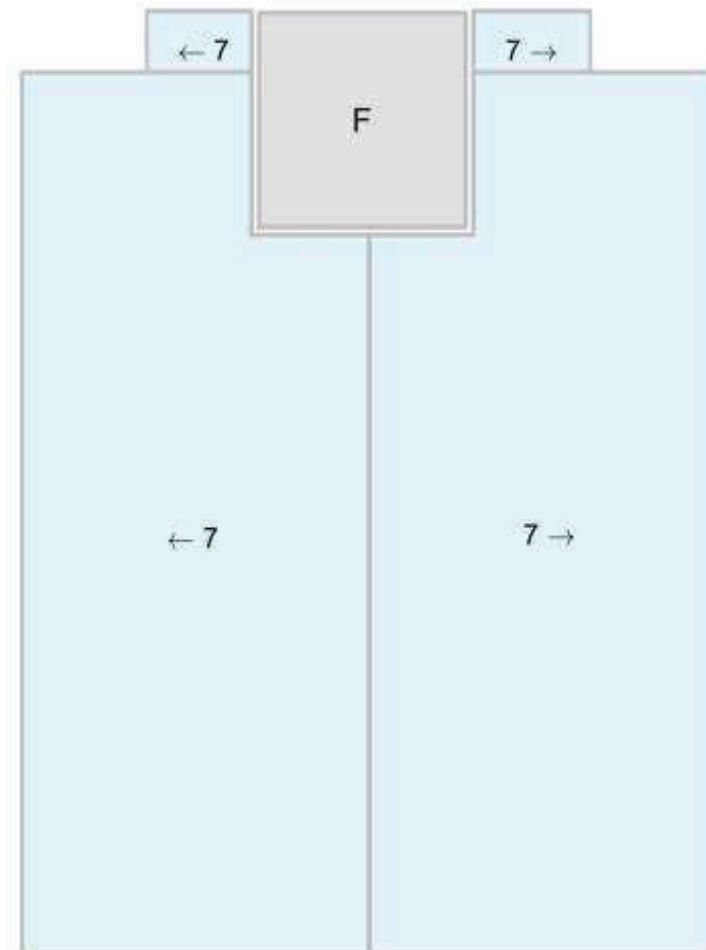


Report: 66354730

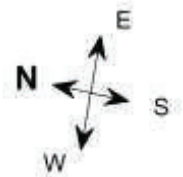
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## Pitch Diagram

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 7/12.



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**Note:** **On-site verification of yellow shaded areas is needed. Details are on the Summary Page.** This diagram contains labeled pitches for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9). 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).

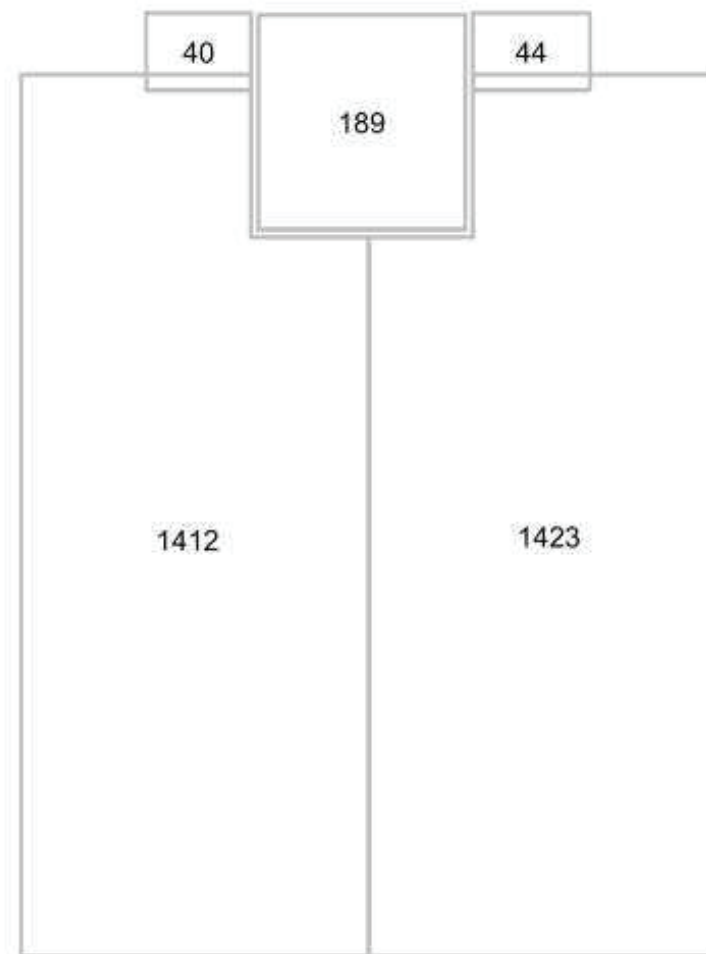


Report: 66354730

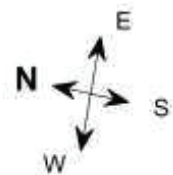
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## Area Diagram

Total Area = 3,108 sq ft, with 5 facets.



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**Note:** On-site verification of yellow shaded areas is needed. Details are on the Summary Page. 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).



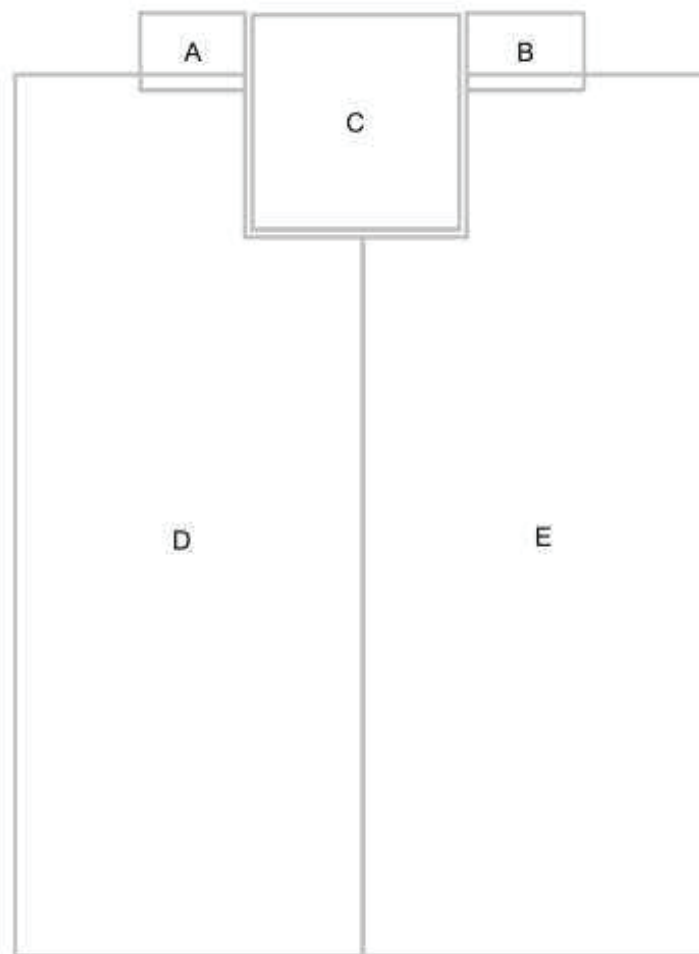
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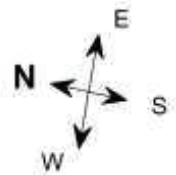


## Notes Diagram

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



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**Note:** On-site verification of yellow shaded areas is needed. Details are on the Summary Page.



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## Penetrations Notes Diagram

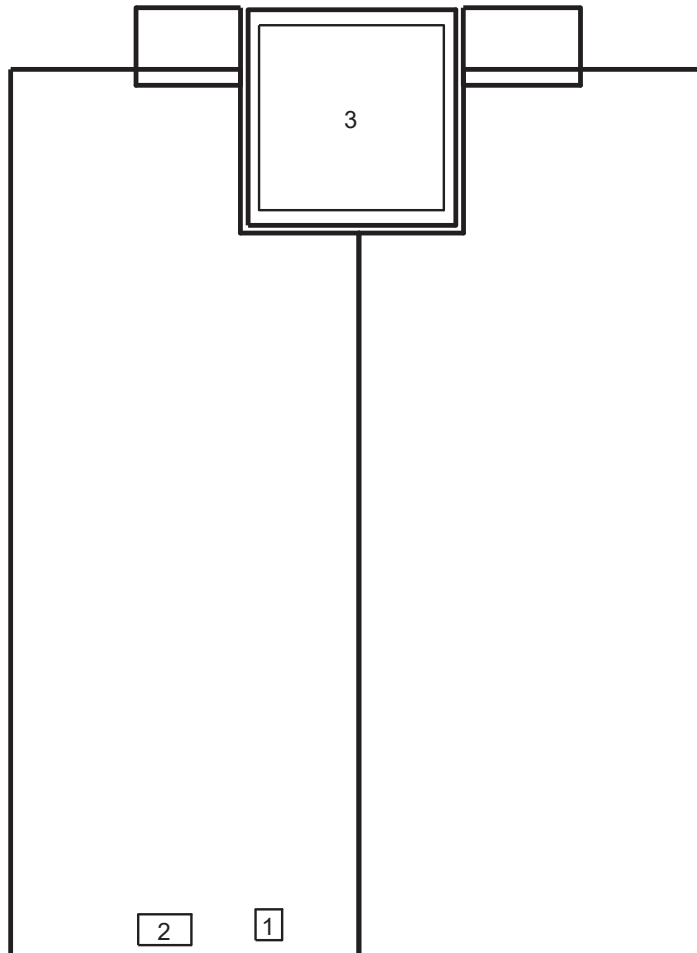
Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 3

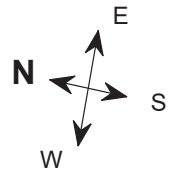
Total Penetrations Perimeter = 68 ft

Total Penetrations Area = 156 sq ft

Total Roof Area Less Penetrations = 2,952 sq ft



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## Report Summary

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

### All Structures

#### Areas per Pitch

| Roof Pitches | 0/12  | 7/12   |
|--------------|-------|--------|
| Area (sq ft) | 188.7 | 2918.9 |
| % of Roof    | 6.1%  | 93.9%  |

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

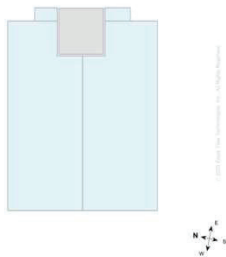
### Report Comments

**Due to obstructions in available images of this property, please verify measurements on portion of structure highlighted in yellow.**

| Penetrations   | 1 | 2  | 3   |  |  |  |  |  |  |  |
|----------------|---|----|-----|--|--|--|--|--|--|--|
| Area (sq ft)   | 4 | 8  | 144 |  |  |  |  |  |  |  |
| Perimeter (ft) | 8 | 12 | 48  |  |  |  |  |  |  |  |

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.

### All Structures Totals



Total Roof Facets = 5  
Total Penetrations = 3

#### Lengths, Areas and Pitches

Ridges = 47 ft (1 Ridges)  
Hips = 0 ft (0 Hips)  
Valleys = 0 ft (0 Valleys)  
Rakes † = 105 ft (6 Rakes)  
Eaves/Starter ‡ = 125 ft (4 Eaves)  
Drip Edge (Eaves + Rakes) = 230 ft (10 Lengths)  
Parapet Walls = 55 (4 Lengths).  
Flashing = 32 ft (4 Lengths)  
Step flashing = 34 ft (4 Lengths)  
Total Penetrations Area = 156 sq ft  
Total Roof Area Less Penetrations = 2,952 sq ft  
Total Penetrations Perimeter = 68 ft  
Predominant Pitch = 7/12  
**Total Area (All Pitches) = 3,108 sq ft**

#### Property Location

Longitude = -72.3387762  
Latitude = 42.6814608

#### Notes

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

#### Parapet Wall Area Table

| Wall Height (ft)           | 1  | 2   | 3   | 4   | 5   | 6   | 7   |
|----------------------------|----|-----|-----|-----|-----|-----|-----|
| Vertical Wall Area (sq ft) | 55 | 110 | 165 | 220 | 275 | 330 | 385 |

This table provides common parapet wall heights to aid you in calculating the total vertical area of these walls. Note that these values assume a 90 degree angle at the base of the wall. Allow for extra materials to cover cant strips and tapered edges.

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



Report: 66354730

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**Online Maps**

Online map of property

[http://maps.google.com/maps?f=g&source=s\\_q&hl=en&geocode=&q=15+Orange+Rd,Warwick,MA,01378](http://maps.google.com/maps?f=g&source=s_q&hl=en&geocode=&q=15+Orange+Rd,Warwick,MA,01378)

Directions from Spencer Preservation Group to this property

[http://maps.google.com/maps?f=d&source=s\\_d&saddr=41+Valley+Rd,Suite+211B,Nahant,MA,01908-1300&daddr=15+Orange+Rd,Warwick,MA,01378](http://maps.google.com/maps?f=d&source=s_d&saddr=41+Valley+Rd,Suite+211B,Nahant,MA,01908-1300&daddr=15+Orange+Rd,Warwick,MA,01378)

Enclosed is your ClaimsReady report. Please click the link to supplement your report with a walls report that includes areas of facets and cut-outs, line lengths, a notes diagram, and waste table calculations. [Request a walls report.](#)



Report: 66354730

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## ARTICLES 23 - 25, WARWICK ANNUAL TOWN MEETING MINUTES, 5/5/2025

**ARTICLE 23:** VOTED unanimously to authorize the Selectboard to accept, on behalf of the Town and in accordance with Massachusetts General Laws Chapter 40, Section 3, the gift of the First Parish Meeting House and known as Unitarian Church located on Town-owned Common at 0 Orange Rd from First Parish and Religious Society to be held and maintained for public purpose including historical preservation, public assembly, cultural programs, and to authorize the Selectboard to take any actions necessary to effectuate said gift, including but not limited to entering any agreements and other paperwork necessary to complete the transfer.

**ARTICLE 24:** VOTED unanimously to authorize the Selectboard to accept, on behalf of the Town and in accordance with Massachusetts General Laws Chapter 40, Section 3, the gift of whatever right, title, or interest the First Parish and Religious Society may hold in a parcel of land consisting of approximately 32 acres located on Hastings Pond Road, Book 11111 page 1111 and shown on the Town of Warwick Assessors Map 108 as Lot 104, said interest currently held in the name of the Estate of Wheelock, such acceptance to be without warranty or representation as to title, and to authorize the Selectboard to take any and all actions necessary or appropriate to effectuate the acceptance and future management of said interest, including but not limited to entering any agreements and other paperwork necessary to complete the transfer such that income be held in a restricted fund and used solely for the maintenance, preservation, repair, and care of the building known as the First Parish Meetinghouse, located on the Town Common.

**ARTICLE 25:** VOTED unanimously to authorize the Selectboard to accept, on behalf of the Town and in accordance with Massachusetts General Laws Chapter 44, Section 53A and Chapter 40, Section 3, a gift of cash or investments from First Parish and Religious Society to be held in a restricted fund and used solely for the maintenance, preservation, repair, and care of the building known as the First Parish Meetinghouse, located on the Town Common, and to authorize the Treasurer, under the direction of the Selectboard, to establish such a fund and expend monies from it for said purposes.