# **Grafton Center Meetinghouse**

# Historic Building Assessment with Preservation Guidelines

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# Introduction

#### **Purpose:**

This study documents the history and structural condition of the Grafton Center Meetinghouse. The resulting treatment options are informed by the intended reuse of the building and the Secretary of the Interior's Standards. This report will help provide the owner, Mascoma Valley Preservation, with a road map of the building's rehabilitation and qualify it for historic preservation grants.

# Methodology:

Mascoma Valley Preservation (MVP), a 501c3 nonprofit, approached architect Christopher Ross in June 2019 in preparation of the group's LCHIP application. MVP sought assistance in the development of a long-term preservation plan for the former Grafton Center Meetinghouse, which the organization acquired in September 2019 after a months-long negotiation process with the Town of Grafton and the previous owners, the Peaceful Assembly Church.

This report was aided by Steve Fifield, of Fifield Restoration and Relocation in Canterbury; Misiaszek Turpin, pllc of Laconia; and Andrew Cushing, consultant and MVP president. Much of the history and architectural analysis was provided by the State Historic Register nomination, submitted in February 2016, written by Cushing.



The Grafton Center Meetinghouse sits at the head of the Grafton Center common and serves as the small town's most identifying landmark.

#### Summary:



The Grafton Center Meetinghouse was built in 1797-98 to serve as Grafton's second (and Congregational) meetinghouse. In 1856, the building was moved slightly east to create a common, renovated, and bifurcated to create a sanctuary on the second floor and a town hall on the first floor. The Congregational Church sold the building into private hands in 2010, and six years later, the building was severely damaged in a fire.

Shortly after the fire, the meetinghouse was determined eligible for the New Hampshire State Register of Historic Places for its role in the social history and community development of Grafton. (The fire damage and earlier alterations, namely the vinyl siding and vinyl windows, made it ineligible for its architecture.) The building retains its form and massing, timber frame structure, and fenestration from its 18<sup>th</sup> century construction, but mostly reads as a meetinghouse altered in the mid-19<sup>th</sup> century – like so many meetinghouses in New Hampshire that were renovated to comply with the Toleration Act of 1819, which separated church and state.

The meetinghouse sits at the eastern end of the Grafton Center common, on a half-acre lot sandwiched between US Route 4 and the former line of the Northern Railroad, now the Northern Rail Trail. Grafton Center today is otherwise entirely residential, with the remaining buildings around the common reflecting architectural styles from the early 1800s to the turn of the 20<sup>th</sup> century.

After the fire in January 2016, the building was partially cleaned up and sealed from the elements, but these tarps and stopgap measures were not permanent – though they likely bought the building extra time. The condition of the meetinghouse is therefore the result of fire damage and subsequent water infiltration.

Depending on the options taken and future use, the building will need between \$1.1 and \$1.4 million worth of work.

Grafton is a rural community (population 1,300) with a population that is older (median age, 50.3) and poorer (per capita income, \$29,800) than the state average. The community benefits from having a talented pool of trades people, but it is acknowledged that this project will require financial assistance from outside of the community, and therefore, must be considered an asset for more than just Grafton.

# PART I. History and Architectural Description

This history has been excerpted, with some edits for clarification, from the State Register nomination.

Grafton, first chartered in 1761, and again in 1769, was incorporated as a town in 1778. Initial settlement in town occurred on Razor Hill, where in 1785 the North Meetinghouse was constructed with assistance from opportunistic Baptists who roamed the early towns of New Hampshire in hopes of proselytizing to the newly settled families.<sup>1</sup> Within years of the North Meetinghouse's raising, however, the town's population had shifted from Razor Hill and had become increasingly Congregationalist, rendering the first meetinghouse mostly obsolete.

Starting in February of 1793, Grafton's selectmen "voted to choose a committee to pick a place for a [new] meetinghouse," an arduous undertaking.<sup>2</sup> The decision to build an entirely new meetinghouse just two miles from an eight-year old meetinghouse suggests that either there were severe rifts between the Baptists and the Congregationalists, that Razor Hill felt too remote for a majority of citizens, or that Grafton's early settlers (its population numbered 403 in 1790) were optimistic about growth and prosperity in the Federal era.

While the latter two explanations are difficult to prove, there is evidence that suggests Congregationalists feared the toppling of what historians call the "standing order," or their eminence in the state's political arena. According to compiled church records, New Hampshire was approximately sixty-three percent Congregationalist at this time, and a growing fifteen percent were Baptist. After a 1791 state law ("Act for Regulating Towns and the Choice of Town Officers") officially named ministers as town officials, taxpayers became more judicious about which denomination they associated with, often leaving Methodists, Baptists, and Universalists

<sup>&</sup>lt;sup>1</sup> John Farmer and Jacob Moore, *A Gazetteer of the State of New Hampshire* (Concord, NH: Jacob B. Moore, 1823), 226. For discussion about the Baptists' early role in settling New Hampshire towns, see Reverends William Hurlin, OC Sargent, and WW Wakeman, *The Baptists of New Hampshire* (Manchester, NH: The New Hampshire Baptist Convention, 1902), 29.

<sup>&</sup>lt;sup>2</sup> Grafton Town Records, 17 February 1793.

without the public dollars they had previously been able to tap into.<sup>3</sup> While this legislation sometimes resulted in the formation of "union" denominations, Congregationalists in towns like Grafton opted to physically extricate themselves from the Baptists and build a larger meetinghouse.

For two years, the search committee struggled to find an ideal location for a new meetinghouse. In 1795 the selectmen "Voted to reconsider all former votes that have been [c]ast concerning [the] meetinghouse" and warned the committee that if they "should not agree they shall choose an impartial committee."<sup>4</sup> The selectmen's ultimatum worked; one year later, the committee settled the disputed location and voters approved a lot on the "westerly side" of the road leading from the "state rode" or "center road, so called" (likely today's US Route 4) to Silvester Martin's house.



1817 Ruggles Map, showing Grafton's two meetinghouses – North and Center.

John Kilton sold two acres to the "Senter Society" in September 1797 for the sum of one dollar. (This land was likely transferred after construction started.) The society was comprised of well-known Graftonites and some of the town's earliest settlers: Aaron Barney, Joseph Hoyt, Samuel Williams, Jonathon Buffum, Amherst Kimball, Charles Domenainviller, and Israel Peck (all of whom, interestingly enough, opted not to buy pews at auction).<sup>5</sup> In the deed, the language stated that the meetinghouse and common land was to be built on the twelfth and thirteenth lots in the

<sup>&</sup>lt;sup>3</sup> Nancy Coffey Heffernan and Ann Page Stecker, *New Hampshire: Crosscurrents in its Development* (Hanover, NH: University Press of New England, 1986), 119.

<sup>&</sup>lt;sup>4</sup> Grafton Town Records, 25 February 1795.

<sup>&</sup>lt;sup>5</sup> Unfortunately, pew records do not exist from the North Meetinghouse, but several families with property around the Baptist-affiliated North Meetinghouse purchased pews in Grafton Center.

third range, first division, so marked by a heap of stones. Kilton stipulated that the deed was valid, "as long as they or their successors shall continue or have a Meeting house on the sd. Land…"<sup>6</sup>

At 1796's town meeting, it was "Voted that the said meeting house be built 36 by 22 feet...with a porch on each end."<sup>7</sup> Twin-porch meetinghouses were common in southern New Hampshire and central Massachusetts, especially meetinghouses with dimensions of forty by fifty feet, the *actual* dimensions of Grafton Center's meetinghouse.<sup>8</sup> Stairwells in these exterior "porches" allowed for more space within the meetinghouse itself. The second story was a gallery, or mezzanine, with additional seating facing toward the pulpit window on the northern, eave-end elevation.

On the interior, the meetinghouse included box pews auctioned to townsfolk to raise funds. At first, fifteen pews were sold, mostly to men in the Bullock and Martin family (families who, interestingly enough, lived adjacent to the North Meetinghouse). These proprietors were promised that the construction would be completed in two-and-a-half years.<sup>9</sup> In total, the new meetinghouse could seat 300 people, about fifty more than the North Meetinghouse.<sup>10</sup> The building committee told the carpenters that there should be "two seats each side of the Broad alley next to the pulpit and asks that there be two seats in the gallerys [sic] agreeable to Canaan meetinghouse," which had been completed several miles away in 1796.<sup>11</sup>



No archival details about the exterior paint scheme can be found, but physical evidence suggests the exterior was off-white. (Brilliant white was not an option until titanium dioxide was mass produced, starting in 1916. This coincided with the popularity of the Colonial Revival style, which resulted in many churches becoming the white we associate with today.) In Canaan, it was "voted that the sides and wall of the house be colored a stone couler [sic], the roof a Spanish Brown, and the doors a sky blue."<sup>12</sup>

The interior plaster walls and trim of the Grafton Center Meetinghouse remained unpainted. This was likely due to cost, but perhaps due to taste.

Canaan Meetinghouse, built 1793-6.

<sup>6</sup> Grafton County Deed Book 303, page 131. September 2, 1797, John Kilton to Senter Society.

<sup>8</sup> Peter Benes, *Meetinghouses of Early New England* (Amherst: University of Massachusetts Press, 2012), 171.

- <sup>11</sup> Grafton Town Records, 16 March 1796.
- <sup>12</sup> Canaan Town Records, 19 September 1793.

<sup>&</sup>lt;sup>7</sup> Grafton Town Records, 6 March 1796.

<sup>&</sup>lt;sup>9</sup> Grafton Town Records (1793-1804), p.46.

<sup>&</sup>lt;sup>10</sup> Hamilton Child, *Gazetteer of Grafton County, New Hampshire, 1709-1886* (Syracuse, NY: The Syracuse Journal Company, 1886), 288.

It is unknown who built the Grafton Center Meetinghouse. Nearby Canaan's was built/overseen by William Parkhurst based off plans by Joseph Carleton (who designed the Alna, Maine meetinghouse). Interior work in Canaan and Springfield were based off finish work at the Salisbury Meetinghouse, done by Levi George. (Which can then be seen in the Strafford, VT meetinghouse.) Grafton's frame is particularly fine, suggesting that the building was raised by an experienced, and likely itinerant, timber framer.





Springfield Meetinghouse, built 1797, renovated 1851.

East Grafton Union Church (North Meetinghouse), built 1785, moved c.1840, renovated 1896.



The interior of the Grafton Center Meetinghouse shows that the wood was left unpainted.

In 1797 the meetinghouse hosted its first town meeting in what was likely an unfinished space. (the North Meetinghouse hosted its last town meeting in 1814.)<sup>13</sup> Having two meetinghouses was superfluous and in 1814 the selectmen "voted that the Town Meeting should be held at the Center Meeting House for the future."<sup>14</sup> The North Meetinghouse fell into disrepair until it was moved in c.1842 to the industrial village of East Grafton. Once moved, the former Baptist meetinghouse was renovated and christened a "Union Church." For much of the remaining nineteenth century, however, the Center Meetinghouse/Congregational Church and the new East Grafton Union Church shared ministerial services, suggesting that the religious differences between the two churches was eventually nonexistent.

After the Toleration Act of 1819 (for which Grafton's representative voted in favor), tax dollars could no longer support church services, or in the words of the law, "Provided that no person shall be liable to taxation for the purpose of fulfilling any contract between any town and settled minister."<sup>15</sup> After this watershed moment, meetinghouse architecture changed in New Hampshire. Some towns built separate town halls. Some churches built separate houses of worship. But most towns simply opted to divide their existing meetinghouses. This bifurcation happened in Canaan (c.1840, since restored), Springfield (1851), Lempster, Wentworth (1867), and Langdon (1851), among others.

The Center Meetinghouse was renovated and bifurcated in 1856. Town records reveal little about this era and church records no longer exist. A common was created when the building was moved to a narrow lot between the Northern Railroad (which arrived in 1847-48) and the Center Road (today's US Route 4). This narrower lot necessitated the demolition of the twin-porch entrances. In place of the western porch (today's façade), a bell tower and a new substantial entranceway was built. The rear elevation gained an interior chimney, and the former main entrance (on today's south elevation) was eventually removed decades later, as evidenced in historic photographs.<sup>16</sup> The rear elevation also lost its windows on the second floor, and it is likely that the fenestration on the south elevation's second story changed from seven bays to five bays (see p. 17 for rendering).

<sup>&</sup>lt;sup>13</sup> Kenneth R. Cushing, *Isinglass, Timber, and Wool: A History of the Town of Grafton, NH* (Grafton, NH: Kenneth R. Cushing, 1992), 18. Perception in town, and indeed, the date on the building, read 1798. All town records suggest the building was completed by 1797.

<sup>&</sup>lt;sup>14</sup> Grafton town records, 2 April 1813.

<sup>&</sup>lt;sup>15</sup> "The Toleration Act," or "An Act for Regulating Towns and the Choice of Town Officers," *Laws of New Hampshire*, v. 8, 28th General Court, 1819 (Concord, NH: Evans Printing Co., 1920), 820-21.

<sup>&</sup>lt;sup>16</sup> Cushing, *Isinglass, Timber, and Wool*, 256.



The earliest photo of the Center Meetinghouse, showing the recently-patched side entrance and Grafton Center depot in the background, c. 1900. This depot burned in 1907.



Grafton Center scene, as painted by Franklin Poole (1808-?) and displayed in Wakefield, MA Historical Society. The painter is either on the site of the meetinghouse before its move, or on the new common created by the meetinghouse's absence.

On the interior, the first floor was dedicated to the town, while the second floor became home to the Congregational Church, which built new chestnut pews, paneled the walls with the recycled 18<sup>th</sup> century wainscot (perhaps the breast work of the former galleries), and re-plastered to include fine coved detailing around the windows. New spiral staircases were added to the NW and SW corners and the windows were likely replaced from 12/12 sash to 6/6 sash.

The impetus for the slight moving of the meetinghouse is unknown but may have been the result of and reaction to Grafton Center becoming wealthier and more industrial. The addition of the Northern Railroad and the Grafton Center depot gave nearby farms, mines (notably Ruggles), and mining-related industry easy access to distant markets. This newfound wealth provided the congregation funds to renovate their meetinghouse. The creation of the common and the formation of an idyllic New England village may have been a nostalgic response to this landscape of mines, mills, and quarries. Commons were also created around this time in Andover and Warren – suggesting that several towns in rural New Hampshire were experimenting with town planning and beautification projects.

For nearly one century, the meetinghouse remained largely unchanged. Oral histories reveal that the church was not always active during this time, but the town hall was used for dances and suppers. Sometime in the 1940s, the town renovated the first floor. Beadboard was installed on the walls, covering up the original wainscot, a kitchen was inserted into the SE corner, and the NW spiral staircase was removed and replaced with a stairwell more conducive for coffins. A new exterior chimney replaced the interior one and two new entrances and a rear addition were added.



*Pearl Howe in carriage, c. 1905. Note that the attic window remains a 12/12.* 

*Earliest photo showing the new secondary entrance (but the remaining 12/12 window). 1940s.* 



Grafton Center from Williams Hill, c. 1900. Cardigan Mountain in the background.



One of the last trains in Grafton Center, c. 1978.

In 1963 the town and church embarked on a lawsuit to determine the rightful owner of the meetinghouse. Due to lack of documents that spelled out the official arrangements, however, the town opted to move its town hall into the recently vacated East Grafton Schoolhouse (Grafton joined the Mascoma Valley Regional School District in 1963, leaving the two-room schoolhouse empty). The Congregationalists continued to occupy both floors of the meetinghouse until 2010, when a multimillion dollar gift enabled the congregation to build a new church several miles further south on Route 4.

The meetinghouse's new owner, a minister who was attracted to Grafton by the "Free State movement" (a national push to concentrate Libertarian-minded voters in one state, and ultimately one town) created a church on site with a mission of peaceful assembly.<sup>17</sup> Years of property tax disputes between the Town and new owner prompted the town to lien the meetinghouse in late 2015 and prepare it for auction. However, a damaging fire on January 12, 2016 claimed the life of the resident minister, John Connell.

The Peaceful Assembly Church board and the Town reached an agreement that enabled the voluntary association to claim property tax exemption in exchange for rehabilitating the meetinghouse within three years. When that work did not transpire, the Town initiated legal proceedings in November 2018.

Mascoma Valley Preservation formed in February 2019 to purchase the meetinghouse and pay the Town the value of the lien.

<sup>17</sup> "John Connell of the Peaceful Assembly Church in Grafton, NH," https://www.youtube.com/watch?v=TZycKIHo1ko

# **Architectural Description**

# Evolution

The Grafton Center Meetinghouse was originally a two-story, twin-porch design, with a mezzanine on the second floor. Its pulpit and sounding board were located on the northern elevation. This design was very common in New Hampshire, although nearly every meetinghouse of this type was altered in, or by, the mid-19<sup>th</sup> century to accommodate more clearly defined uses of civic and religious space.

The exact design of the porches is unknown but ghosting on the rear elevation (revealed once the vinyl siding was removed) suggest a width of  $\sim 16'$  and a roofline low enough to enable an attic window in the peak of the gable.

All windows were likely 12/12 (smaller windows than the nearby Canaan Meetinghouse, which boasts 20/20), with the five bay fenestration on the south elevation's second story likely originally seven bays – matching the first floor pattern and Canaan more closely.

The only extant and intact meetinghouse in New Hampshire that offers a comparable twin porch design – and therefore a glimpse as to what Grafton Center once looked like -- is in Fremont.



The Fremont Meetinghouse, built in 1800, is the only meetinghouse left in New Hampshire with a twin porch design. Grafton Center would have been similar.



Rear elevation of the Meetinghouse, with ghosting of second story windows and rear porch outlined in red.



Rendering of the Grafton Center Meetinghouse, c. 1797. (Today's southern and western elevations.)



Northeast corner of the original meetinghouse, showing the pulpit window in the central bay.

By 1856, the building had been relocated and renovated, removing some of the 18<sup>th</sup> century meetinghouse appearance. On the exterior, the twin porches were removed, a bell tower added to the western ridge, the pulpit window and second floor windows at the eastern elevation eliminated, the southern fenestration altered, most of the remaining windows replaced with 6/6 sash, and new front entrance installed. It is possible/likely that the timbers from the porches were reused in the construction of the bell tower.

On the interior, new stairwells were inserted in the NW and SW corners, necessitating the blocking up of four windows. Downstairs finishes, however, do not seem to have changed; not even the wainscot or plaster was painted. Upstairs, the gallery breast work was relocated to the walls of the new sanctuary and new false walls were constructed inward to hide the timber posts. The floor was raised to create sunken aisles and an altar platform and choir loft were added.

At some point around 1900, the original central doorway on the southern elevation was removed.

In the 1940s, two new doorways were added in the NW and SE corners of the building; a new exterior chimney was constructed; new rear sheds were added; and the downstairs got remodeled with bead board walls and a new kitchen.



1940s appearance.





**TODAY.** The façade, or the west elevation, faces the common; it is divided into five bays, with a two-tiered steeple extending from the gabled front. Atop the bell tower steeple is a fiberglass spire added in 1983. The first floor includes a substantial central recessed entranceway whose vertical trim includes inset trefoil motifs, which are also replicated on the steeple's corner boards (currently covered in vinyl). A secondary entranceway, on the northwest corner, dating to the 1940s, was an attempt to make the northwest stairwell more accessible to the handicapped and to ease the delivery of coffins. Both sets of doors are unoriginal.

The south elevation, the original façade, has five bays on the second story, though the first story's former entranceway (since blocked in) is flanked by sets of three windows. The southeast corner's window was replaced with a door and ramp in the 1940s.





The rear (east) elevation's first story has four windows – two on each side of the brick chimney. The chimney itself extends from a tapered base to a simple capped top, secured occasionally with metal bands. No windows exist on the second story, though an original window opening remains in the attic gable end, partially obscured by the chimney. The rear elevation also includes some low-lying shed roofed additions built of concrete blocks. These additions serve as access to the basement and bathrooms. (These additions were removed in May 2021.)

The north elevation, which was most heavily damaged by the 2016 fire, has five bays and is symmetrical. Physical evidence in the form of braces that survived the fire confirms that a pulpit window did exist in the central bay.



North elevation, showing the worst of the fire damage.

#### Timber Frame



Attic, looking east.

The building's timber frame is substantial, and according to timber framer Steve Fifield, "very fine." Its posts and beams measure, on average, 12x13" and the building is divided into five bents, numbered in roman numeral notches, as seen on the king posts. Substantial carrying beams between the first and second story span the width of the building. Though they appear contemporary with the 1797 structural members, the central two beams are actually slightly different and were installed in 1856 when the building as divided into two floors.

The attic reveals a hefty king post truss frame, similar to Grafton's first meetinghouse – the North Meetinghouse. The bottom chords are slightly cambered – there is an 8" difference in the sanctuary's ceiling height between the plates and the king post. Unlike with many other clear span spaces, the Grafton Center Meetinghouse's bottom chords have not slipped from the king posts. It is not clear *how* the king posts are secured to these bottom chords.



Also in the attic, evidence of the former porches can be seen in the sheathing, especially on the western elevation/façade. The patches on the sheathing indicate that the gabled roof line of the former porch came to a point two feet below the gable window and carried a pitch similar to that of the main meetinghouse volume.

West gable end, showing roofline of the original porch below the window opening.





Drawings of the timber frame roof system.

#### Interior

The basement is a crawl space, of 2-3' in height, with the rear 1940s addition providing space for a furnace, water heater, and two bathrooms.

On the first floor, many walled rooms divide what was once open space. These rooms include a kitchen and two offices on the southern end and a lobby and two corner stairwells on the western end. A larger room with a stage and hallway to the rear subterranean restrooms occupy the remainder of the space. The interior walls are lined with pine bead board, installed in the 1940s when the "coffin stairs" were built. Spaced throughout the first floor are columns that support the second floor sanctuary, including one 1797 gallery column. A metal tension rod was installed in 1856 (or shortly thereafter) to provide added strength to the building.



Existing basement plan.



Existing first floor plan.



Interior of first floor during (above) and after (below) selective demolition, looking south where former central entrance was. The green beadboard was applied atop the original plaster and wainscot.





Above: first floor, looking east. Below: first floor, looking SW (orginal gallery column on the right).



Original material on the first floor includes the wide board wainscot paneling below the window sills, the window trim, a gallery column, and the plaster. This material is in fair condition, considering its age and the building's fire and water damage. The wainscot and enclosures for the posts are finished with beaded edges.

The gallery column is similar in design to that found in nearby Canaan and in Tamworth's meetinghouse (built in 1794). This suggests a craftsman who turned columns for projects around the state, or possibly even New England. There were likely six such columns in Grafton, of which only one remains.



Left: Close-up of the wainscot boards with the beaded edge. Right: 1797 gallery column.

The NW stairwell is a wide, straight "coffin" staircase that leads directly into the sanctuary. The SW stairwell, however, is circular and ends at a doorway near the choir stage upstairs. When these stairs were constructed, they necessitated the removal of the windows at the corners of the building.





Above: the "coffin stairs" experienced heavy fire damage. Left: the SW spiral staircase survived the fire.

The sanctuary has two aisles that lead from a choir stage (on the west) to the altar (on the east). The plaster walls are curved near the window insets; a graceful and creative solution to obscuring the timber frame's posts. Wainscot paneling, actually 18<sup>th</sup> century paneling from the gallery's breast work, wraps around the room's perimeter. All doors are finished with faux wood graining, while the chestnut and pine pews remained in a natural finish.

An altar spans the width of the eastern portion of the sanctuary, while a choir platform spans the width of the western portion.

The pews were labeled, documented, and removed in preparation for interior selective demolition.



First floor space, looking NE toward altar platform.



Existing second floor plan.



Paneling in the sanctuary, recycled from the  $18^{th}$  c. gallery breast work.



Faux graining on the sanctuary doors, dating from 1856.

#### **PART II. Preservation Objectives**

The exterior of the Grafton Center Meetinghouse continues to read as a meetinghouse influenced by the decades following the Toleration Act of 1819. It no longer has its twin porches, it has gained a bell tower, and it sits in a location that now frames a 19<sup>th</sup> century common. The building has gained significance for its 19<sup>th</sup> century layer, and lost significance for its 18<sup>th</sup> century origins.

This change does not render the building less special or worthy of preservation, but its intact 19<sup>th</sup> century fabric should be retained.

Fire and water damage resulted in the need for the majority of the first floor and second floor interior topmost layer (1940s on) of finishes to be removed. This selective demolition revealed that the 1797 era is actually quite intact on the first floor. An 1856 restoration would actually result in the first floor reading much as it did when first constructed.

For the purposes of this project, Mascoma Valley Preservation should follow the Secretary of the Interior's Standards for **Rehabilitation** (see appendices).

The ultimate use of the building will inform rehabilitation plans.

The meetinghouse benefits from a central and visible location, decent parking, and access to Route 4 and the Northern Rail Trail. Because of the fire and years of water damage, there is greater flexibility with the Meetinghouse's reuse plans than with other well-preserved or intact meetinghouses in New Hampshire. With a mission to restore *and* re-purpose historic buildings, it is MVP's goal to provide new life for old places, while using historic preservation tools.

A community survey sponsored by the Grafton Library suggest that residents most desire community events, a general store, and a place to gather. With the permanent closing of the Grafton Country Store in 2018, this lack of a "third space" was especially pronounced in town. A pandemic without a local marketplace made the lack of such a business even more acute.

It is MVP's objective to convert the first floor of the meetinghouse into a marketplace/general store, complete with everything a typical small town store would offer (except gas pumps). The second floor would become a meeting space for gallery exhibits, community suppers, and presentations. Grafton would join at least seven other nonprofit-owned or nonprofit-managed general stores, sometimes called community-supported enterprises, in the state.<sup>18</sup>

<sup>&</sup>lt;sup>18</sup> The other stores include: Harrisville, South Acworth, Francestown, Hooksett, Eaton, Freedom, and Root Seller in Lancaster. Canterbury has a community-supported LLC model, similar to Hebron (which has since returned to private ownership).

#### **Character-Defining Features**

Character-defining features are the architectural elements of a building that provide it its significance. Features include the building's shape and setting, but also its materials and design details. The features can be divided into three categories: *Primary* (elements that should not be altered), *Secondary* (elements that are important, but could be altered with good reason), and *Tertiary* (elements that are not historic).

**Primary** 

-Setting and location at the head of Grafton Center common

-Form and massing (two story, gable-front building with symmetrical bays)

-Timber frame structure with King post truss system

-Exterior finishes, including molding, clapboards, trim, and trefoil motifs

-Split granite foundation and steps

-Two-tiered bell tower

-Fenestration

-Distinct two floors

-Circular staircase in the SW corner

-Faux grained doors in the sanctuary

-18<sup>th</sup> century paneling in the sanctuary

-Coved plaster walls in the sanctuary around window openings

-Wide board wainscot on the first floor and post enclosures

-18<sup>th</sup> c. gallery column

Secondary

-Rear exterior chimney

-19th c. iron tension rod

-First floor finishes (tongue-and-groove board on walls and ceiling)

-NW façade secondary entrance and "coffin" stairwell

<u>Tertiary</u>

-First floor layout, with smaller rooms lining the southern wall

-acoustic ceiling tiles and vinyl floor tiles

-Fiberglass spire

-Vinyl siding

-Replacement windows

-Replacement exterior doors

-Handicap ramp and entrance on southern elevation

-Rear restrooms/furnace addition

#### PART III. Condition Assessment and Treatments

Site



#### Condition

The parking lot is currently painted and has substantial cracking. The pavement extends to the foundation along the south and west elevations.

#### Treatment

-Consult with NH DOT, architect, septic designer, and electrician to determine location of new driveway, septic system, buried power lines, and drainage. Most likely, the existing parking lot will need to be pulled up and a new

one paved.

-When repaying, avoid paying right up to the building's foundation.

-Fencing and garden beds should be installed in a design and manner that is complementary to the historic building.

#### Foundation/Basement

Condition. foundation is The constructed of rubble field stone and capped with split granite capstones. The basement is a crawlspace of maybe 3' maximum clearance. It is filled with fiberglass insulation, haphazardly applied in between the joists, and forced hot air ducts. The floor is dirt. Water infiltration exacerbated fungal growth and several joists have slipped from their pockets, causing major settling in the first floor.

Much of the granite on the south and west elevations has been painted dark purple.



Condition of granite foundation at the NE corner.


*Undercarriage, showing fiberglass batting and mold growth.* 

*Treatment.* After building is structurally sound, lift building and dig out the foundation to full 8' height. Pour frost-proof concrete walls and floor, keeping and re-installing granite capstones. The building may benefit from being raised 6" or so to lift the sills further away from Route 4 (which will continue to rise with shim coats). This new level can be concealed with proper grading.

Replace sills, joists, and beams as necessary; sistering where possible. Consult with an engineer about footings and posts in the basement that will support the building.

Extensive excavation may trigger the need for an archaeological study. Consult with LCHIP and/or the Division of Historical Resources.

The painted granite can be cleaned by sandblasting on the gentlest setting or by using chemical strippers with wire brushes.

#### Frame

#### Condition.

The north half of the building received the most fire and water damage; the south half and most of the bell tower appear to be in decent condition.

Excessive charring on the timbers will need to be examined more carefully, but it is possible that there is enough "meat" left to some of the charred members that total replacement is not necessary.

#### Treatment.

The frame is built of mostly pine and spruce and was hand-hewn. Replacement timbers should be of similar quality and species, but sawn to differentiate themselves from the historic structure.

It can be expected that upwards of half the floor joists and roof purlins will need to be replaced due to fire damage and rot, as well as the entire ridge pole. Larger timbers will require entire replacement, sistering, and/or splicing. An experienced timber framer should consult with an engineer to develop a specific plan for how best to address weakened members and how to join the historic and new timbers.

The following illustrations show which timbers will need replacement (red) vs. repair or further investigation (yellow).



Meetinghouse frame (without steeple), looking NE from SW corner. (Note: purlins and studs not included.)



North side of the Meetinghouse, showing concentration of needed repairs and replacements.



Aerial view of the roof with portions of the roofing removed. The middle bent is without a rafter, and is temporarily connected to the top plate with dimensional lumber.



Close up of a joint at a central bent, showing the extent of charring and weakened joinery.



Close up of charring at a king post and rafter joint.



*The second story floor system appears to be in good shape and should continue to dry out over the winter.* 



The north side's central bents' posts sustained the most fire damage and will likely need to be fully replaced if the removed charring reveals too much structural damage.

#### Exterior

*Roof Condition.* The roof (especially the north slope) is mostly missing. A temporary roof of corrugated metal was installed in September 2019 and was a necessary and important step to secure the building from additional water infiltration.

Roof Treatment. The north roof slope and 50% of the south roof slope needs to be stripped to the rafters, new rough sawn sheathing applied, and plywood applied atop. (Plywood is recommended to ensure a more even application of asphalt shingles.) was originally wood shingles, but was Roofing three tab asphalt most recently. Three tab shingles or architectural shingles with a monotone color scheme should be used.

*Bell Tower Condition.* The bell tower is in decent shape, structurally, but needs new flush boards on the southern side and new trim on second tier at the SE



corner. No spire existed atop the tiered bell tower until 1983, when the congregation fundraised and installed one.

#### Bell Tower Treatment

-fiberglass spire should be removed as it is not historic.

-two tiers' roofs should be stripped and re-roofed with either rubberized membrane or durable panelized metal (such as copper or lead-coated copper).

-louvers to be repaired/replaced as necessary.

-remove vinyl siding and aluminum trim; inspect condition of wood clapboards and trim beneath. Repair or replace wood elements as needed.

-scrape and paint exterior surfaces.



#### Exterior Finishes

*Condition.* The exterior currently has vinyl siding and aluminum trim added in the 1990s. This siding covers the original clapboards and obfuscates historic detailing. The plastic shutters are in poor condition. Every window was replaced with vinyl starting in the 1990s. Most of these windows are now broken and/or damaged from smoke and fire.

#### Treatment

-remove vinyl siding, aluminum trim, shutters, and foam board insulation.

-repair/replace clapboards as needed, estimated at 50%. Replacement clapboards recommended to be quarter-sawn with matching profiles available through places like Ward Clapboard Mill. Trim and molding should be replicated in profile, purchasing custom knives if necessary.

-scrape and hand sand clapboards, following lead safe practices. Bare wood should be primed with an oil-based primer and may require two coats. Finish coat should be latex and applied in two coats. A satin sheen (versus a flat finish) will help to repel water better. Hand brushing will yield better results than spraying.

-consider re-installing shutters, as money allows. Shutter replacements should be wood and matching to historic photographs.

-replace all vinyl windows with quality wood sash, in 6/6 light pattern, with muntin profiles to match the 1856 era (the era of significance).

-storm windows should be purchased through purveyors like Allied, whose HOL-B models for eastern casing are nearly invisible and whose finishes can be custom matched to the color of window sash.

-remove NW secondary stairwell door on façade and return the façade's symmetry with a window.

-replace the façade doors and install custom wood doors that match historic photographs. New doors should be installed so that they are flush with the exterior wall, as seen in historic photographs.

-remove covered handicap ramp and entrance at the SE corner of building (better ADA access can be achieved through a new rear addition).

-consider returning the southern central entrance (removed c.1900), with a door and entablature to be recreated based on nearby meetinghouses of the construction era. This new entrance would provide better and safer access to the meetinghouse from the parking lot.

#### Interior

#### First Floor Condition.

The first floor space was altered in the 1940s to include smaller rooms, tongue-and-groove ceiling and walls, and a new stairwell in the NW corner. The finishes on the first floor were most heavily damaged by fire and smoke. 18<sup>th</sup> and/or 19<sup>th</sup> century material remains beneath these later finishes, including some paneling, wainscot, plaster, and window casing – see below.



Paneling in the stair landing room at the SW corner of the first floor, showing paneling.



The "coffin stairwell" in the NW corner of the first floor, looking up toward sanctuary.



The floorboards on the first floor were heavily damaged by three years of elemental exposure.

#### First Floor Treatment

-carefully demolish wall and ceiling surfaces (tongue-and-groove boards) and remove layers of flooring, making sure to investigate for clues of building's evolution.

-remove "coffin" staircase, which is in very poor condition. Secondary egress will be provided in the rear addition, which is preferable from a code and fire safety perspective.

-remove interior walls, which show evidence of extreme decay at the base. Consult with an engineer to replace the wall with the replicas of the original gallery columns.

-install new hardwood flooring atop subfloor. Due to the expected high traffic count, recommended flooring would be white oak, in planks of 5-7".

-install insulation (fiberglass batting or rock wool) and modern MEP systems in walls before finishing with sheetrock or plaster.

#### Second Floor Condition

The north elevation is in the worst condition, with most of the historic fabric burned or compromised. The plaster ceiling and wood flooring are not salvageable after years of water damage. Fortunately, enough of the 18<sup>th</sup> and 19<sup>th</sup> century material exists to replicate paneling. The chestnut pews were documented and removed in preparation of the rehabilitation.



Interior of second floor looking east toward the altar platform.

#### Second Floor Treatment

-remove plaster ceiling (this will allow bottom cords of timber frame to dry out more completely).

-remove plaster and lath and damaged wainscot paneling on north wall in preparation of timber frame repairs.

-remove raised platforms where pews once stood and altar platform to create level flooring area; install hardwood flooring. Retain the choir loft platform. MVP could choose to demarcate where the raised platforms were with contrasting wood flooring.

-install insulation (fiberglass or rock wool batting) and modern MEP systems in walls and ceiling before finishing with plaster.

-recreate wainscot paneling and coved window openings where fire damaged the originals (and where the coffin stairwell interrupted the historic floor layout).

#### Rear Addition

#### Condition

The current rear additions are inadequate for restrooms and egress. These 1940s subterranean additions of concrete blocks and shed roofs are perennially damp and flood in the springtime )and freeze with inches of ice in the winter).

#### Treatment

Option 1) Attempt to carve out space within the historic building for secondary staircase, elevator, and bathrooms. This would eliminate the need for additional construction, but would take away from valuable square footage and potentially damage or disrupt historic fabric inside.

Option 2) Design a rear addition to accommodate some, if not all, of the programmatic needs (stairwell, restrooms, elevator, etc.). This new addition should be compatible, subservient, discernible, and severable from the historic building. See Preservation Brief 14 for further guidance.



A rendering of what a rear addition could look like, pending property line review.

#### **Systems**

#### Condition

The building's MEP systems should all be replaced, including electrical, plumbing, heating/cooling, and septic These systems were all damaged in the fire, were done haphazardly when installed, and – in the case of the septic system – are not up to modern standards. This is especially true if the new use of the Meetinghouse is to be a general store/marketplace.

#### Treatment

MVP should consult with a systems engineer or consultant in concert with any architect to determine optimal systems while the building is mostly open to the frame.

#### Electrical:

-new wiring and fixtures should be added throughout the building.

-MVP should consider burying the power lines to the meetinghouse, so as to preserve the appearance of the exterior.

-interior lighting should be sympathetic to the historic building, but not strive to mimic historic lighting. Upstairs, the continued use of schoolhouse lights would be appropriate.

#### Plumbing

-inspect the site's septic and well; upgrading or replacing either as necessary. Both are unknown quantities at this point, and will likely need upgrades. A septic tank could be installed below the parking lot to maximize the half acre lot.

-the existing bathrooms should be removed and relocated to either inside the building or to a new rear addition. Three restrooms are recommended, per code review.

-a new commercial kitchen will need to be installed. This is recommended to be placed in the rear of the first floor, so that any ventilation system is less visible.

#### Heating

-the current forced hot air system is over 35 years old and inefficient.

-there are two main options to heat and cool the Meetinghouse: traditional fuel-based furnaces or alternative/sustainable sources. The building should also be zoned for most efficient heating and cooling. If the building is heated/cooled with propane or oil, two furnaces may be best, located in the basement and attic. Ductwork allows air to move quickly through the building, but it can take up space (ductwork can also be challenging in a timber frame structure). A pellet boiler could be an option, too, but consideration will have to be made for storage of biomass.

Electric heat could be considered, especially if solar (on site or off site) is a realistic option. Ducted electric heat pumps with an exterior condenser and mini splits are efficient but can struggle to warm spaces when temperatures drop below forty degrees, and especially below zero degrees.





Existing bathrooms.

Existing furnace.

#### **CODE REVIEW**

#### **GRAFTON CENTER MEETING HOUSE**

#### **PROJECT DESCRIPTION**

The project consists of the rehabilitation of an existing 19<sup>th</sup> century meeting house. The exterior of the building is to be restored and repaired, and the multiple additions located primarily at the rear of the building are to be removed. Accessibility throughout the entire building and property is to be addressed to provide universal access. Interior spaces will include a general store, gathering and event space, commercial kitchen, restroom facilities and an elevator.

#### A. <u>Referenced Standards:</u>

New Hampshire State Building Code

New Hampshire State Fire Code

2015 NFPA 101 Life Safety Code Handbook 2015 International Existing Building Code

#### A. 2015 International Existing Building Code Review

#### Section 301-Administration

**301.1.1 Prescriptive compliance method.** *Repairs, alterations, additions* and *changes of occupancy* complying with Chapter 4 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

NOTE: The scope of work encapsulates all four categories - repairs, alterations, additions, and changes of occupancy.

#### Section 408 – Historic Buildings

**408.1 Historic Buildings.** The provisions of this code that require improvements relative to a building's existing condition or, in the case of repairs, that require improvements relative to a building's predamage condition, shall not be mandatory for historic buildings unless specifically required by this section.

**408.2 Life Safety Hazards.** The provisions of this code shall apply to historic buildings judged by the building official to constitute a distinct life safety hazard.

#### Section 410 – Accessibility for Existing Buildings

**410.1 Scope.** The provisions of Sections 410.1 through 410.9 apply to maintenance, *change of occupancy, additions* and *alterations* to *existing buildings,* including those identified as *historic buildings.* 

**410.4.1 Partial Change of Occupancy.** Where a portion of the building is changed to a new occupancy classification, any alterations shall comply with Sections 410.6, 410.7, and 410.8.

NOTE: The assembly space would be considered to remain the same in occupancy classification, but the mercantile space, there is a change in occupancy.

**410.6 Alterations** Where compliance with this section is *technically infeasible*, the alteration shall provide access to the maximum extent technically feasible.

NOTE: The rules on accessibility are slightly more lenient for a partial change rather than a complete change of occupancy. In the case of alterations affecting an area containing a primary function, providing an accessible route--to, say, the assembly space--is not required when the costs therein would exceed 20 percent of the costs of the alterations affecting the area of primary function. (410.7)

**410.8.5 Ramps.** Where slopes steeper than allowed by Section 1012.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 410.8.5.

| SLOPE                                       | MAXIMUM RISE (per foot) |
|---|-------------------------|
| Steeper than 1:10 but not steeper than 1:8  | 3 inches                |
| Steeper than 1:12 but not steeper than 1:10 | 6 inches                |

#### B. NFPA 101 Life Safety Code Handbook

#### Chapter 6: Classification of Occupancy

**6.1.14.2.2 Mixed Occupancy.** A multiple occupancy where the occupancies are intermingled.

NOTE: The different uses of the building are to share an entrance corridor and, while they each have allocated emergency exits, they would be without the separation of fire-rated barriers.

**6.1.14.3.1** Each portion of the building shall be classified as to its use in accordance with Section 6.1.

#### Chapter 13: Existing Assembly Occupancy

**3.3.190.2 Assembly Occupancy.** An occupancy (1) used for a gathering of 50 or more persons for deliberation, worship, entertainment, eating, drinking, amusement, awaiting transportation, or similar uses; or (2) used as a special amusement building, regardless of occupant load.

#### Table 7.3.1.2 Occupant Load Factor

NOTE: An Assembly occupancy for concentrated use, without fixed seats, allows for an occupant load of 7 sq. feet per person (198 people). For a mercantile sales area on the street floor, the occupant load factor is 30 sq. ft per person (57 people).

**13.2.3.6.2** The main entrance/exit shall be of a width that accommodates one-half of the occupant load.

**13.2.3.7** Each level of an assembly occupancy shall have access to the main entrance/exit and shall be provided with additional exits of a width to accommodate not less than one half of the total occupant load served by that level.

#### **Chapter 7: Means of Egress**

#### 7.2.1.2.3 Minimum Door Leaf Width

**7.2.1.2.3.2 Door openings** in means of egress should not be less than 32 in. in clear width, except under any of the following conditions:

(1) Where a pair of door leaves is provided, one door leaf should not be less than 32 in. clear width opening.

**A.7.2.1.2.3.2(9)** The relative egress carrying capacity of door openings and stairs is based on the two-to-three ratio used in Table 7.3.3.1 to help balance the capacity of various egress elements and ensure that downstream egress facilities do not form a bottleneck or constriction to flow. For example, a stairway with a nominal width of 56 in. should be served by an exit discharge door with a minimum width opening of 37 in. It might be advantageous for two discharge doors to serve such a stairway, each with a more typical clear opening width of 32 in.

**7.3.3.1** Egress capacity for approved components of means of egress shall be based on the capacity factors shown in the Table 7.3.3.1

#### Table 7.3.3.1 Capacity Factors

|            |             |      | Level      |        |  |
|------------|-------------|------|------------|--------|--|
|            |             |      | Componen   | ts And |  |
|            | Stairways   |      | Ramps      |        |  |
|            | (width/pers | son) | (width/per | son)   |  |
| Area       | in.         | mm   | in.        | mm     |  |
| All Others | .3          | 7.6  | .2         | 5      |  |
|            |             |      |            |        |  |

NOTE: A two-thirds ratio egress door clear width to stair width requires a 39-inch door for the assembly's 198-person occupancy. The main entrance, which must account for half of the total occupant load (127.5 people), must be at least 32 inches wide (since 32 in. is the minimum). The minimum width of the egress stair is 59.4 inches for the assembly, and the combined (front stair) is 76.5 in.

#### 7.10. Marking of Means of Egress

#### 7.10.1 General

**7.10.1.2.1** Exits, other than main exterior exit doors that obviously and clearly are identifiable as exits, shall be marked by an approved sign that is readily visible from any direction of exit access.

#### Chapter 43: Historic Buildings

**43.10.5.8 Exit Signs.** The authority having jurisdiction shall be permitted to accept alternative exit sign or directional exit sign location, provided that signs installed in compliance with other sections of this *Code* would have an adverse effect on the historic character and such alternative signs identify the exits and egress path.

#### NOTE: Such an argument for more old-fashioned signs could be made.

**13.2.8 Illumination of Means of Egress.** Means of egress other than for private party tents not exceeding 1200 ft<sup>2</sup> shall be illuminated in accordance with Section 7.8.

**Section 7.8.1 Illumination of Means of Egress, General.** Illumination of means of egress shall be provided in accordance with Section 7.8 for every building and structure where required in Chapters 11 through 43. For the purposes of this requirement, exit access shall include only designated stairs, aisles, corridors, ramps, escalators, and passageways leading to an exit.

NOTE: The minimum value for illumination within the exit access and exit discharge is 1 footcandle, measured at the floor.

**8.6.5 Required Fire Resistance Rating** The minimum fire resistance rating for the enclosure of floor openings shall be as follows:

(2) Other enclosures in new construction – 1-hour fire barriers.

(3) Existing enclosures in existing buildings –  $\frac{1}{2}$  hour fire barriers.

#### 43.10.4.7.1 Stairway Enclosure.

**43.10.4.7.1** Stairways shall be permitted to be unenclosed in a historic building where such stairways serve only one adjacent floor.

NOTE: Although it would probably be ideal to have the ability to shut off the assembly space from the mercantile, the stairs do not need to be fire rated or even enclosed.

#### 13.3.5 Extinguishment Requirements.

**13.3.5.1** Where the occupant load exceeds 100, the following assembly occupancies shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1:

- (1) Dance halls
- (2) Discotheques
- (3) Nightclubs

(4) Assembly occupancies with festival seating.

NOTE: While the occupant load stands at 198, the multipurpose room will not have a demarcated determination for dance, neither will it have built-in seating, and thus need not have a sprinkler system.

#### 13.3.4 Detection, Alarm, and Communications Systems.

#### 13.3.4.1 General.

**13.3.4.1.1** Assembly occupancies with occupant loads of more than 300 and all theaters with more than one audience-viewing room shall be provided with an approved fire alarm system in accordance with 9.6.1 and 13.3.4, unless otherwise permitted by 13.3.4.1.2, 13.3.4.1.3, or 13.3.4.1.4.

NOTE: The total occupant load for the entire building stands at 255, so no fire alarm system is required; However, due to the building's history and community support, the installation of a fire alarm system would be recommended.

#### C. <u>2015 International Building Code</u>

| No. | CLASSIFICATION | OCCUPANCY | DESCRIPTION  | WATER<br>(URINA<br>SECTIO<br>OF THE<br>INTERN<br>PLUMB<br>CODE) | CLOSETS<br>LS SEE<br>N 419.2<br>IATIONAL<br>ING | LAVAT | ORIES  | BATHTUBS/<br>SHOWERS | DRINKING<br>FOUNTAINS (SEE<br>SECTION 410 OF<br>THE<br>INTERNATIONAL<br>PLUMBING CODE) | OTHER                |
|-----|----------------|-----------|--|---|---|-------|--------|----------------------|--|----------------------|
|     |                |           |  | Male  | Female  | Male  | Female |                      |  |                      |
| 1   | Assembly       | A-3       | Auditoriums<br>without<br>permanent<br>seating, art<br>galleries,<br>exhibition<br>halls,<br>museums,<br>lecture halls,<br>libraries,<br>arcades and<br>gymnasiums | 1 per<br>125  | 1 per<br>65                                     | 1 pe  | er 200 |                      | 1 per 500  | 1<br>service<br>sink |
| 6   | Mercantile     | М         | Retail stores,<br>service<br>stations,<br>shops,<br>salesrooms,<br>markets, and<br>shopping<br>centers   | 1 p   | er 500  | 1 pe  | er 750 |                      | 1 per 1,000  | 1<br>service<br>sink |

#### 2902.1 Minimum Plumbing Fixtures

NOTE: As the occupant load for the assembly is roughly 99 men and 99 women, and the occupant load for the mercantile is 57 total, three bathrooms would be appropriate.

#### Part IV. Priorities and Cost Estimates

#### PHASE I – Structural and Envelope Improvements

1) Replace necessary timbers, including sills, joists, rafters, and purlins. Remove plaster, wainscot, and clapboards/sheathing as necessary to gain access.

2) Blast salvageable charred timbers with baking soda mixture or sand to remove excess charring and remove odor. Sand can be used where the timbers are not visible.

3) Strip roof and re-lay sheathing boards and plywood on top of rafters and purlins.

-Re-shingle with architectural shingles or three tab shingles. Preferred colors include brown or gray; avoid shingles with multiple colors/tones.

4) Lift building and dig a new, full height foundation. The poured concrete walls should be capped with the original granite capstones. Grade around new foundation to accommodate the new drainage system, if one is necessary. (Geologic data suggests the area is very sandy and may not require drainage.)

5) Remove 1983 fiberglass spire, inspect bell tower and replace necessary posts and beams (most looked OK); remove vinyl siding and replace flush boards and trim as necessary. Re-roof with rubber or panelized metal like copper.

6) Patch, repair, replace clapboards as necessary (estimated at 25% replacement on E and W elevations, 10% southern elevation, 75-100% on N elevation). Cornice and other trim should be replaced in-kind, purchasing custom knives if necessary.

7) Construct a rear addition to house secondary stairwell and/or elevator and bathrooms. This phase should focus on the addition's envelope to take advantage of the construction elsewhere on site.

| Repair timber framing  | 76,000        |
|--|---------------|
| Media blasting of timbers  | 12,000        |
| Install permanent roof   | 40,000        |
| Steeple repair (incl. structural improvements and spire removal) | 75,000        |
| Foundation   | 175,000       |
| Sheathing and siding   | 50,000        |
| Rear addition  | 125-250,000   |
| TOTAL  | \$553-678,000 |

#### PHASE IIa – Exterior Finishes

1) Replace 34 windows with custom wood sash of 6/6 and 12/12 (in the attic gable ends). Install exterior aluminum storms, preferably a model that sits inside the casing.

2) Scrape and paint exterior clapboards and trim, painting entire building in an off-white color.

3) Install period-appropriate exterior doors. On the south wall, construct a door surround informed by late 18<sup>th</sup> century entablatures.

4) Install exterior shutters, if so desired.

| TOTAL   | \$165,000 |
|---|-----------|
| Purchase and install wood shutters  | 20,000    |
| Purchase and install exterior doors, including new south wall door surround | 10,000    |
| Purchase and install storms windows   | 20,000    |
| Purchase and install 33 wood sash windows                                   | 50,000    |
| Exterior scraping/painting  | 65,000    |

#### PHASE IIb – Interior Finishes

1) Install new electrical, plumbing (incl. well and septic, if necessary), and heating system.

2) Install insulation. Recommended: fiberglass batting or rock wool in walls, cellulose dense pack in attic.

- 3) Finish interior walls/ceilings with plaster.
- 4) Install flooring. Recommended: hardwood, milled in wide planks.
- 5) Install doors and trim, restoring doors wherever possible.

6) Interior painting.

| Mechanical (heating system)   | 30,000 |
|-------------------------------|--------|
| Electrical                    | 25,000 |
| Plumbing, incl. fixtures      | 60,000 |
| Insulation and interior walls | 50,000 |

| TOTAL                            | \$262,000 |
|----------------------------------|-----------|
| (Install septic system and well) | 40,000    |
| Interior painting                | 10,000    |
| Interior trim and doors          | 7,000     |
| Flooring                         | 40,000    |

#### PHASE III – Miscellaneous

1) Landscaping, including fencing around the north yard and new parking lot.

2) Install commercial kitchen to architect's specifications.

3) Signage.

| TOTAL                       | \$65,000 |
|-----------------------------|----------|
| Signage                     | 5,000    |
| Commercial kitchen          | 35,000   |
| Landscaping and parking lot | 25,000   |

| \$1 201 750 1 245 000 |  |
|-----------------------|--|
| 156,750-175,500       |  |
| 1,045,000-1,170,000   |  |
| 65,000                |  |
| 262,000               |  |
| 165,000               |  |
| 553-678,000           |  |
|                       |  |

#### PART V. Supplemental Information

**Preservation Briefs:** 

- 3: Improving Energy Efficiency in Historic Buildings
- 14: New Exterior Additions to Historic Buildings: Preservation Concerns
- 18: <u>Rehabilitating Interiors in Historic Buildings—Identifying Character-Defining Elements</u>
- 21: Repairing Historic Flat Plaster—Walls and Ceilings

24: <u>Heating</u>, <u>Ventilating</u>, and <u>Cooling Historic Buildings</u>: <u>Problems and Recommended</u> <u>Approaches</u>

32: Making Historic Properties Accessible

#### **Standards for Rehabilitation**

- 1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
- 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
- 3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
- 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- 5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
- 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
- 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- 9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- 10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.





























NORTH ELEV.-EXISTING SCALE: 1/4" = 1'-0"



# CHRISTOPHER THOMAS ROSS

33 MARSTEN LANE UNIT 152 ENFIELD, NH 03748

WWW.CHRISTOPHERTHOMASROSS.COM

GRAFTON TOWN MEETING HOUSE

4/26/21

+23'-5" 93 Roof Plate

+12'-0" 2 Second floor

±0" 1 Ground Floor

-5'-0" -1 Basement GRAFTON NH USA

EXTERIOR ELEVATIONS

A3-01



10 EAST ELEV.-EXISTING SCALE: 1/4" = 1-0"

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GRAFTON TOWN MEETING HOUSE

4/26/21

+23'-5" 93 Roof Plate

+12'-0" 2 Second floor

±0" 1 Ground Floor

-5'-0" -1 Basement GRAFTON NH USA



A3-02





# CHRISTOPHER THOMAS ROSS

33 MARSTEN LANE UNIT 152 ENFIELD, NH 03748

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**GRAFTON TOWN** MEETING HOUSE

4/26/21

GRAFTON NH USA

# EXTERIOR ELEVATIONS

A3-03



+12'-0" 2 Second floor

+23'-5" 93 Roof Plate



-5'-0" -1 Basement





10 WEST ELEV.-EXISTING SCALE: 1/4" = 1'-0"

# CHRISTOPHER THOMAS ROSS

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WWW.CHRISTOPHERTHOMASROSS.COM

GRAFTON TOWN MEETING HOUSE

4/26/21

+23'-5" 93 Roof Plate

+12'-0" 2 Second floor

±0" 1 Ground Floor

-5'-0" -1 Basement GRAFTON NH USA

### EXTERIOR ELEVATIONS

A3-04























NORTH ELEV.- PROPOSED SCALE: 1/4" = 1'-0"





# <section-header><section-header><section-header>

4/26/21

+23'-5" • 3 Roof Plate

+12'-0" 2 Second floor

±0" 1 Ground Floor

-5'-0" -1 Basement

#### GRAFTON TOWN MEETING HOUSE

GRAFTON NH USA

ELEVATIONS-PROPOSED

A3-01


10 EAST ELEV.- PROPOSED SCALE: 1/4" = 1'-0"

## CHRISTOPHER THOMAS ROSS

33 MARSTEN LANE UNIT 152 ENFIELD, NH 03748

WWW.CHRISTOPHERTHOMASROSS.COM

**GRAFTON TOWN** MEETING HOUSE

4/26/21

GRAFTON NH USA



A3-02



+12'-0" 2 Second floor

±0" 1 Ground Floor

-5'-0" -1 Basement







33 MARSTEN LANE UNIT 152 ENFIELD, NH 03748

WWW.CHRISTOPHERTHOMASROSS.COM



+23'-5" 93 Roof Plate























**GRAFTON TOWN** 

MEETING HOUSE

GRAFTON NH USA

4/26/21







10 WEST ELEV.- PROPOSED SCALE: 1/4" = 1'-0"

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4/26/21

+23'-5" 93 Roof Plate

+12'-0" 2 Second floor

±0" 1 Ground Floor

-5'-0" -1 Basement GRAFTON NH USA

ELEVATIONS-PROPOSED

A3-04