Structural Assessment Report

Town of Windham

Windham Town Hall

3 N. Lowell Road
Windham, NH 03087

Date Prepared:
August 1, 2023

Prepared by:
Martel Engineering, Inc.
44 Partridge Road
Windham, NH

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August 14, 2023

Windham Town Hall
Board of Trustees
3 N. Lowell Road
Windham, NH 03087

RE: Windham Town Hall
Structural Condition Assessment

To Whom it May Concern,

Martel Engineering, Inc. (MEI) is pleased to provide you with this report following our inspection of the structure located at the above reference site. Mr. Michael Martel, P.E, a professional structural engineer in the State of New Hampshire, and his Project Engineer Christian Rainey, E.I.T., from our office visited the site on August 1st, 2023, to perform the Structural Condition Survey.

The Structural Condition Survey is to be focused on the beams and columns supporting the roof in the attic, and the accessible portions of the foundation as accessed from the crawl space. Several additions to the ceiling joists were observed as part of the inspection. These additions are addressed throughout this report.

BACKGROUND

The Windham Town Hall was constructed in 1798 as the second meeting house in Windham. The structure took several years to complete, and the interior was not finished until 1814. In 1868, the building was heavily renovated to create an upper and lower hall under the direction of Joseph B. Sawyer. The structure is located at 3 N. Lowell Road in Windham, NH, and is owned by the Town of Windham. The building was deemed individually eligible for the National Register of Historic Places in 1993. Below is a location map and an aerial view of the property.

The current use of the building is office space for the Town on the first floor and a meeting hall on the second floor. The attic is unused and only accessible via ladder.

The structural inspection and report were performed by Mr. Martel and Mr. Rainey along with the attached photo log. A "Condition Assessment Report for the Town of Windham" by Bedard Preservation & Restoration, LLC and Mae Williams Preservation Consultant, dated January 2022, detailing the history of the building was utilized as part of this report. This report is attached under Appendix I.

The purpose for the structural assessment is to determine the condition of the roof and foundation supporting elements and recommend any necessary remediations. Additionally, MEI investigated potential causes for water intrusion into the wood siding that would cause exterior paint peeling. The existing wood beams in the attic appear to be in good condition. A considerable twist was noted to be present in one of the ceiling beams in the attic. The perimeter foundation along the exterior of the building also appeared to be in good condition. The interior foundations were noted to be in poor condition. Standing water was observed within the crawl space. Existing insulation was falling from between the floor joists. To provide a safe place to maintain the use of this building, some minor structural issues should be addressed.

ARCHITECTURAL SIGNIFICANCE AND CONSTRUCTION HISTORY

The building was built in the typical wood-framed style of that time period utilizing rough-cut lumber and a granite block foundation. The structure is comprised of two main sections, the first floor and second floor, along with two additional areas, a basement crawl space and an attic.

There were many repairs and restorations performed to the building over the years. These are detailed in the historical synopses of the assessment report referenced in Appendix II. The one noticeable area of repair was to the roof. Additional modern roof rafters were installed between the existing rough-cut roof rafters, as well as plywood sheathing installed beneath the shingles. The remaining original roof elements are still in place and are in fair condition.

STRUCTURAL CONDITION ASSESSMENT

Resource Description

The first floor of the Town Hall is the main entrance to the building with a hallway down the middle of the building and doorways into the office spaces. A stairway leading to the second floor is located immediately to the right after entering the building. An additional staircase is located in the back of the building. The wall construction is a wood-framed with a sheetrock or plaster interior façade. The floor is constructed of timber joist and plank with a carpet covering. The access hole to the crawl space beneath the Town Hall is located in the office on the left after entering the front door.

The second-floor room is the meeting room. This room has large windows along the north and south walls with smaller windows along the east and west walls. The floor is constructed from timber joist and plank decking. The structural portion of the walls are rough-cut wood-framed construction to match the first-floor exterior. There is a storage closet containing the ladder leading up to the attic.

The attic contains the main structural truss members that support the roof. Rough-cut timber posts and beams support smaller roof joists. The attic does not have a floor. Beams spanning each direction of the building intersect and support the posts. Some beams exhibit significant "twist" that has developed over time. The roof is typical plank construction of the time period but has been supplemented with exterior sheathing. The posts are connected with diagonal bracing in the intermediate bays.

The original roof is constructed with timber joist and plank decking. The underside of the roof is exposed to the open attic area. The original roof was covered with plywood sheathing and asphalt shingles. The original roof joists were sistered for approximately half the height of the roof with new 2x10's at approximately 17-inches on center (OC).

Evaluation of Resource Condition

Roof

The roof is in good condition. No visible leaks were found during the assessment. Existing planks remained intact with no visible areas of rot. The roof has been sheathed with plywood on the exterior to help reinforce the older members.

Attic

The attic supporting members were in good condition. Beams and posts were checked for rot, but no instances of structural impairment were found. Existing roof joists were sistered with 2x10's and joist hangers @ 17-inches OC for approximately half the height of the roof.

Beams running north-south along the floor of the attic support the posts and beams that support the roof. As viewed from the front of the Town Hall, the third primary supporting floor beam displayed severe twist over its entire length. This twist was likely caused by the roof load being transferred to the floor beam from the roof beam that sits slightly off center on the floor beam. Despite the twist, the beam seems to remain structurally sound.

Second Floor

The second-floor floor system could not be inspected thus the condition of the floor could not be determined.

Likewise, the exterior wall structural members could also not be accessed for inspection. Thus, their condition could also not be determined. However, the interior finishes of the walls seemed to be in good condition, suggesting that there were no concerns for water intrusion or structural deficiencies.

Frist Floor

The first-floor flooring is in good condition. The floor insulation, as accessed from below in the crawl space, requires removal and replacement with new insulation. Structurally, the members appeared to be in good condition and relatively free of rot or other impairments. The North and West areas of the foundation were inaccessible due to dropped duct work and limited crawl space.

Similar to the second-floor walls, the first-floor walls were also unable to be accessed for inspection. However, the interior finishes of the walls seemed to be in good condition, suggesting that there were no concerns for water intrusion or structural deficiencies.

Foundation – Crawl Space

The crawl space allowed limited access to the foundation beneath the Town Hall. From what was able to be observed, the exterior granite foundation was in good condition but appeared not to be constructed below the frost line. The interior foundations that were observed were not adequately supported and considered to be in poor condition. The interior piers were constructed from multiple materials including wood, CMU block, stone and brick. Many of the piers are undermined and supported right at grade. There is no vapor barrier on the ground which exposes the framing and

insulation to moisture. This moisture can lead to many issues over time, including rot, mold, and mildew.

Limitation of Visual Inspection

The condition of the first-floor ceiling and framing and second-floor ceiling and framing could not be evaluated. The floor covering was intact and was not disturbed. The floor appeared to be sound under step and is not suspected to be structurally deficient. The exterior walls of the first and second floors were covered with interior finishes that covered the exterior structural wall. In the future when interior renovations require the removal of wall finishes, they should be removed completely to allow for inspection of the structural elements.

Recommendations

Roof

The 2x10's that currently sister the original roof joists should be continued at the same spacing for the remaining height of the roof. Any 2x10's that have exhibited twisting or splitting should be removed and replaced. Proper fasteners such as joist hangers should be used whenever possible.

Attic

The attic floor beam that exhibited severe twist, as stated previously, should be braced with 2x10's @ 12-inches OC on either side of the beam. The braces should be connected to the adjected floor beams. While there is not an immediate structural concern, the bracing will be a preventative measure to prevent further twisting in the future.

It is recommended that a catwalk be installed between the timber framing members so access to the attic space is safe and inspections/repairs can be performed.

Second Floor

There are no recommendations for the second floor until the structural members are able to be inspected.

First Floor

The first-floor insulation located between the floor joists should be removed and replaced. This would be best accomplished during the recommended repairs for the foundation. See below.

Foundation

The foundation and crawl space area beneath the building should be completely redone. It is recommended that the gravel floor be excavated to a depth of approximately 3 feet and a 2-inch "rat slab" installed. This slab would allow for a more accessible crawl space beneath the building as well as serve as a barrier against water or animal intrusion. After excavation is completed, the interior support foundations should be jacked up, removed, and replaced with the appropriate kind of footings.

Any areas of the exterior granite foundation that appear to need repointing should be addressed while this work is being done.

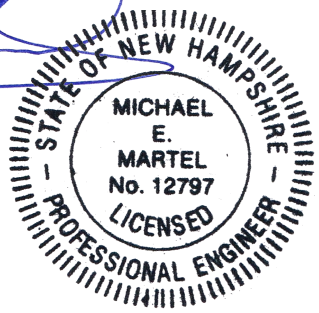
ENDORSEMENT AND CERTIFICATION

This report was prepared for the Town of Windham and the Board of Trustees by Martel Engineering, Inc. The inspection and report were performed and developed by Michael Martel P.E., licensed in the state of New Hampshire.

Should you have any questions regarding this subject, please feel free to contact our office.

Sincerely,

MARTEL ENGINEERING, INC.



Michael E. Martel, P.E.
President

CAPTION PHOTOGRAPHS

Photo 1: Front Entrance of Town Hall

Photo 2: Post and beam supporting members in the attic

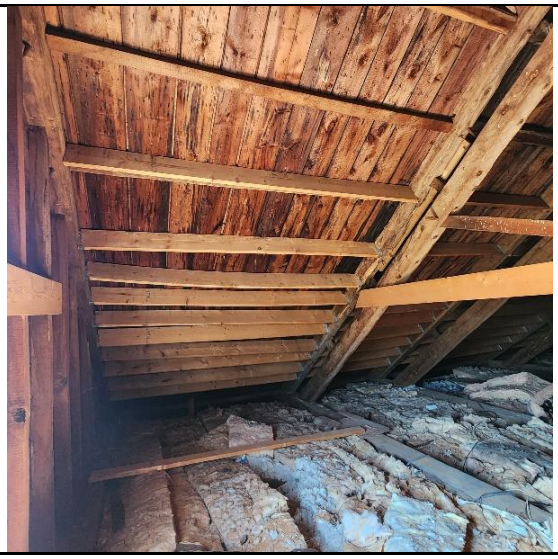


Photo 3: Sistered 2x10 roof joists in lower half's

Photo 4: Ladder entrance to attic

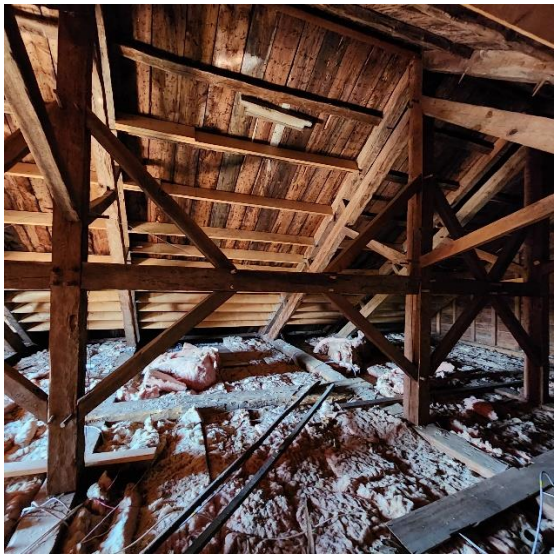


Photo 5: Intermediate diagonal bracing between roof supporting posts

Photo 6: Severely twisted attic floor beam as viewed from the side

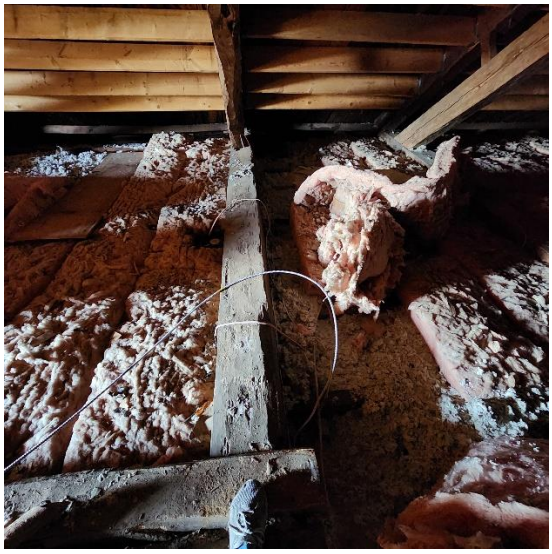


Photo 7: Severely twisted attic floor beam as viewed head on

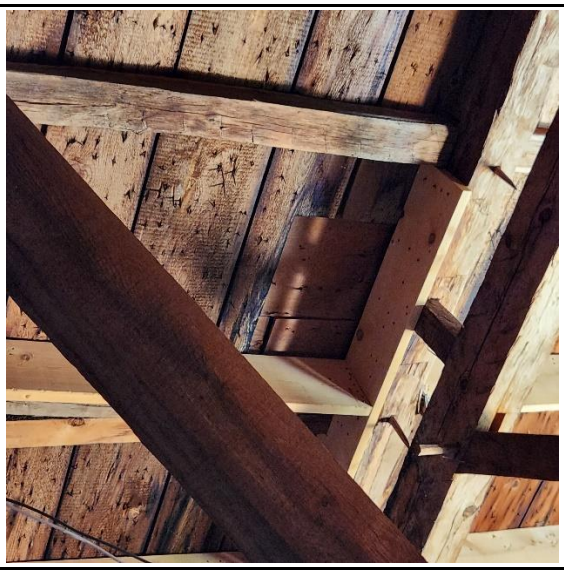


Photo 8: Covered former chimney opening in roof planks

Photo 9: View of the far gable end wall in the attic

Photo 10: Traditional hole and peg construction of the diagonal bracing. Missing Brace and peg

Photo 11: Entry gable end wall and window of the Town Hall

Photo 12: Upper section of the roof without the sistered 2x10's

Photo 13: Plastic shims on cinderblocks supporting a first-floor beam

Photo 14: Foundation support of various materials supporting a first-floor beam

Photo 15: Failing insulation between first-floor floor joists

Photo 16: Stacked granite supporting a first-floor beam

Photo 17: Vent pipe that runs through the crawl space

Photo 18: Apparent break in vent pipe

Photo 19: Center posts undermined

Photo 20: Stacked stone foundation under granite block

Photo 21: Openings between granite block foundation

Photo 22: Granite top block foundation from exterior

Photo 23: Granite block foundation with concrete skirt

Photo 24: Granite block foundation with concrete skirt

APPENDIX I

Windham Town Hall

Condition Assessment Report for the Town of Windham

3 North Lovell Rd, Windham, NH 03087

Bedard Preservation & Restoration LLC
PO Box 430
Gilmanton, NH 03237

Mae Williams Preservation Consultant
PO Box 941
Meredith, NH 03253

Final January 31, 2021

This report was funded, in part, by a grant from the New Hampshire Preservation Alliance, which receives support for its grant program from the N.H. Land and Community Heritage Investment Program (LCHIP)

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Part I: Executive Summary

Locaiton of Windham Town Hall at 3 N. Lowell Road

Executive Summary

This 2021 Condition Assessment Report, for the Town Hall of Windham, NH was undertaken by Bedard Preservation & Restoration LLC partnering with Mae Williams, Preservation Consultant at the request of the Town of Windham, NH.

The 6 bent, 5 bay, approximately 40 ft. by 50 ft. post and beam meetinghouse was original built in 1798. This was the second meetinghouse for the Town of Windham and is located at 3 North Lovell Road.

While built in 1798, the meetinghouse was not completely finished until 1814. The original orientation was a main entrance on the south side, with porches (covered, enclosed stairs) on each gable end that gave access to the second floor galleries. The pulpit, with Palladian window, was located on the north side.

In 1868 the building was heavily renovated with the gallery floor being filled-in and a new stairway located in the north east corner of the structure.

It was at this time that the 1798 Palladian window and trim detail was removed from the north side and installed on the west gable end.

Over the years other renovation projects have been accomplished, but these projects have largely left the 1868 renovations and look intact.

Part I: Executive Summary

The building is in overall good condition with typical issues and problems seen in other structures of that age, size and use.

The cost of the recommendations as outlined in this report for the exterior and interior of the Town Hall are as follows:

Project Cost (includes exterior and interior work at 2021 pricing)	**$ 157,000**
Contingency @ 10%	**15,700**
Management Costs/General Conditions	**15,700**
TOTAL PROJECT COST	**$ 188,400**

The Town of Windham should be congratulated for their past stewardship and their desire to continue to be good stewards of the Town Hall.

If a decision is made by the Town of Windham to proceed to apply for LCHIP funding, I will make myself available for any review site visit so that I can answer any questions or concerns.

Sincerely,

Stephen Bedard

Part II: History and Development and Architectural Description

by Mae Williams

The Windham Town Hall was constructed in 1798 as the second meetinghouse in Windham. The building took several years to complete, and the interior was not finished until 1814. In 1833, the new Presbyterian Church was constructed next door, and the former meetinghouse became the Windham Town House. In ca. 1868, the building was heavily renovated to create an upper and lower hall under the direction of Joseph B. Sawyer. Between 1871 and 1898, the town's Library was located on the second floor, and from 1892 to ca. 1985 the Windham Grange No. 182 has used the upper floor of the building as their meeting hall. In the 1990s, the building was renovated once more: the lower hall was divided into modern offices, and an addition was created off of the back to the building to house a fire-rated stair and elevator.

BRIEF EARLY HISTORY OF WINDHAM (CA. 1739-1798)

The Windham Town Hall is situated near the geographical center of the Town, at the Village of Windham and adjacent to the intersection of NH Route 111 and Lowell Road. The Town of Windham is bounded to the north by Derry, to the east by Salem, to the south by Pelham, to the west by Hudson, and to the northwest by Londonderry.

Five shiploads of immigrants from Northern Ireland (who were, in turn, of Scottish and English ancestry) arrived in Boston, Massachusetts and Portland, Maine on August 4, 1718.[1] The newcomers were descendants of Scotch Presbyterians who had settled in Antrim and Londonderry, Ireland, and came to the new world seeking freedom from economic instability at home. Facing religious intolerance and ethnic prejudice in Boston from the largely English Congregationalist population, some of the families traveled north to New Hampshire in the spring of 1719. Sixteen of these families settled in an area they called "Nutfield" (this was incorporated as Londonderry in 1722).[2]

These "Scotch-Irish" settlers began moving into the territory that would become Windham as early 1720. At the time, the territory of Londonderry included all of the present towns of Londonderry, Derry, and Windham, as well as parts of Manchester, Hudson and Salem.[3] The first settlements in the Londonderry parish of Windham were made near "Cemetery Hill" and in an area called "Stone Dam" (which was located along the Beaver Brook at the southwest corner of town).[4]**John Waddell** is recorded as building the first house in town on the highest point of land near Cemetery Hill[5] (at the south side of Cobbett's Lake).

The Parish of Windham began the process of severing from Londonderry on February 25, 1739.[6]On January 12, 1741, the petition to separate from Londonderry was presented to (and accepted by) Colonial Governor,

[1] Everett S. Stackpole, *History of New Hampshire,* Volume 1 (New York: The American Historical Society, 1916), 241.
[2] Edwin A. Charlton, *New Hampshire As It is…* (Claremont, NH: Tracey and Sanford, 1855), 49.
[3] Charles A. Hazlett, *History of Rockingham County, New Hampshire and Representative Citizens* (Chicago: Richmond-Arnold Publishers, 1915), 503.
[4] Windham was a parish of Londonderry from 1719 to 1742 (Hazlett, 723 and D. Hamilton Hurd, *History of Rockingham and Strafford Counties, New Hampshire, with Biographical sketches* (Philadelphia: J. W. Lewis & Co., 1882), 533).
[5] Hazlett, 725.
[6]Charlton, 430, and John Farmer & Jacob B. Moore, *Gazetteer of the State of New Hampshire* (Concord: Jacob B. Moore, 1828), 625.

Part II: History and Development and Architectural Description

by Mae Williams

Benning Wentworth(1696-1770, Governor from 1741-1767).[7]The town was named after Sir **Charles Wyndham** (1710-1763), who in 1750 became Early of Egremont and Baron Cockermouth. Wyndham served as a member of Parliament under two English Kings, was Secretary of State, and was a close friend of Gov. Wentworth.[8] The original town included parts of what is now Salem, with the Scotch Presbyterians settling in the west half of the town and the English Congregationalists settling in the east half (now Salem).[9] The first Windham town meeting was held on March 8, 1742.[10]

The Windham Presbyterian Church was organized in 1747[11] and the first pastor was Rev. **William Johnston** (1710-1782).[12] Prior to this time, Windham families had to travel to what is now East Derry for services. "After attending to their morning duties[,] the whole family, even women and children, would walk eight or nine miles to meeting, listen to two long sermons, and then return to their homes, not reaching them till after dark."[13] Rev. Johnston was born in Ireland of Scottish descent, immigrated to America in 1736, where he previously served as the pastor for the Presbyterian Church at Worcester, Massachusetts.[14] Because there was no dedicated meeting house in which to hold services, they were held in barns during the warm season.[15] Johnston's tenure was cut short, in July of 1752 due to financial difficulties: when one-quarter of the territory was annexed to Salem in 1750, the Town could no longer afford to support its minister.[16]

The first Windham Meetinghouse was constructed in 1753 on a high elevation southeast of Cobbett's Pond (figure 1), and the Cemetery on the Hill was constructed adjacent to the building.[17] The meetinghouse served as the meetinghouse for both the Town of Windham and the Windham Presbyterian Church. In October 1760, Rev. **John Kinkead** was installed as the second town minister with a salary of £1,300.[18] "The ministrations of Mr. Kinkead were not satisfactory, nor his deportment such as to win the love and respect of the people, and he was dismissed in April, 1765."[19]

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[7] Hazlett, 509; Elmer Munson Hunt, *New Hampshire Town Names and Whence they Came* (Peterborough, NH: Noone House, 1970), 120; Hurd, 555; and Eliphalet& Phineas Merrill eds., *A Gazetteer f the State of New Hampshire in Three Parts* (Exeter, NH: C. Norris & Co., 1817), 217.

[8] Windham was only the second town to be incorporated under Wentworth's term as Governor (Hunt, 119-120).

[9] Town History Committee, *Rural Oasis: History of Windham, NH, 1883-1975* (Canaan, NH: Phoenix Publishing, 1975), 42-43.

[10] Hazlett, 726 and Hurd, 555.

[11] Farmer & Moore, 625; Town History Committee, 42.

[12] Farmer & Moore, 625, Leonard A. Morrison, "Windham, New Hampshire" *(Granite Monthly*, Vol. X No. 7), 250-251.

[13] Hazlett, 731.

[14] Hurd, 559.

[15] Morrison, 250.

[16] Farmer & Moore, 625 and Hazlett, 727.

[17] Farmer & Moore, 625; Hazlett, 731; and Morrison, *Granite Monthly* Vol. X, 250.

[18] Farmer & Moore, 625; Hazlett, 731; Hurd, 559; and Morrison, *Granite Monthly* Vol. X, 251.

[19] Hurd, 559. Also Hazlett, 731 and Morrison, *Granite Monthly* Vol. X, 251.

Part II: History and Development and Architectural Description

by Mae Williams

Figure 1: Location of 1753 First Windham Meetinghouse excerpted from the "Topographical Map of the State of New Hampshire" surveyed by Samuel Holland, Esq. and printed 1784 (Dartmouth College Digital Collections)

The third pastor in Windham, Rev. **Simon Williams** (1729-1793)[20] was ordained in December 1766 and served the town until his death on November 10, 1793.[21] His salary was approximately $213.36 with a settlement of $200 and a parsonage in which to live.[22]

During Rev. Williams tenure, the town of Windham continued to grow and establish itself as a municipality. On August 26, 1776, 96 Windham men signed the Association Test in support of the new government (3 declined),[23] illustrating that the territory was now a town of relatively considerable size.

[20] Anonymous, www.findagrave.com, Rev. Simon Williams (1729-1793) buried at the Cemetery on the Hill, Windham. "He married Maria Floyd, who died July 28, 1805. They were born Feb. 19, 1729, the same hour, in Trim, County of Meath, Ireland, and they are buried in the cemetery on the hill, and his grave is directly beneath where the pulpit stood in the old church." (Hurd, 559).
[21] Farmer & Moore, 625; and Morrison, *Granite Monthly* Vol. X, 251.
[22] Hazlett, 731.
[23] Albert StillmanBatchellor, ed., *Miscellaneous Revolutionary Documents in New Hampshire…* (Vol. 30, Manchester, N: John B. Clarke Col, 1910), 163-164 & 167.

Part II: History and Development and Architectural Description

by Mae Williams

When Rev. Williams died in 1793, the people of Windham began to discuss constructing a new meeting house at a more centralized location to make it easier for all members of the community to attend services and town meetings at the building.

> ...The agitation of this question produced such contention as not only to delay the settlement of another pastor, but to lead to a separation of some of the families from the congregation residing in the southeast part of the town and vicinity, in consequence of the decision to build a new meeting-house near the centre [sic] of the town.[24]

After years of delays, the Town voted to build a new meetinghouse, by a majority of thirty-nine votes at a June, 1797 meeting.[25]**James Dinsmoor** (1761-1802)[26] and **David Gregg**[27] were tasked with finding the center of the town according to a plan drawn by Col. Varnum of Chester.[28] A committee of five, including **James Cochran** (1748-1822),[29]**James Anderson**, **John Dinsmoor**(1764-1842),[30]David Gregg, and **John Carr**[31] were chosen to draw a plan of the meetinghouse to "lay before the town" at a future meeting.[32] John Dinsmoor, David Gregg, and James Dinsmoor were also

> …instructed to divide the timber wanted for the meeting-house frame into six lots, and sell the getting of it, at vendue, to the lowest bidder, the sale to be at the dwelling house of Henry Campbell. Also, voted t raise one hundred pounds to defray the expense of the building.[33]

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[24] Leonard A. Morrison, *The History of Windham in New Hampshire (Rockingham County), 1719-1883* (Boston: Cupples, Upham & Co., 1883), 127.

[25] William C. Harris, quoted in Morrison, *History of Windham...* (1883), 256.

[26]Anonymous, www.findagrave.com, CPT James Dinsmoor (176101802) is buried at the Cemetery on the Hill, Windham. Just to illustrate the interconnectivity of these early Presbyterian New Hampshire towns, James Dinsmoor was the first cousin of brothers James (1754-1786) and Samuel Dinsmoor (1757-1822) who worked on the Antrim Meetinghouse in 1786. This James Dinsmoor's cousin James (d. 1786) was killed when he fell from the scaffolding while sheathing the Antrim building.

[27] Unfortunately, the source material is not specific as to *which* David Gregg this is in reference to. There were at least 4 David Greggs living in Windham in 1797, three of whom are likely candidates (the other was only five years old in 1797):

1) Deacon **David Gregg** (1730-1809) who was born in Windham to David & Mary Gregg, who emigrated from Ireland (Anonymous, www.findagrave.com, Deacon David Gregg (1730-1809) is buried at the Old Cemetery on the Plains in Windham)
2) Deacon Gregg's son, **David Gregg** (1767-1844) (Anonymous, www.findagrave.com, David Gregg (1767-1844), buried at Waterford Rural Cemetery, Waterford, NY) and
3) Lieut. **David Gregg** (1750-1831), who was born in Windham to William & Elizabeth Gregg who also emigrated from Ireland (Anonymous, www.findagrave.com, Lieut. David Gregg (1750-1831), buried at the Old Cemetery on the Plains in Windham).

[28] William C. Harris, quoted in Morrison, *History of Windham...* (1883), 256.

[29] Anonymous, www.findagrave.com, James Cochran (1748-1822) is buried at the Cemetery on the Hill, Windham.

[30] Anonymous, www.findagrave.com, LT John Dinsmoor (1764-1842) is buried at the Cemetery on the Hill, Windham.John Dinsmoor is also a first cousin of both the Antrim Dinsmoor brothers and the aforementioned James Dinsmoor of Windham (Hazlett, 735).

[31] Possibly the John Carr who was born in 1780 and died in 1860 (Anonymous, www.findagrave.com, John Carr (1780-1860) buried at the Cemetery on the Plains in Windham).

[32] William C. Harris, quoted in Morrison, *History of Windham...* (1883), 256.

[33] William C. Harris, quoted in Morrison, *History of Windham...* (1883), 256-257.

Part II: History and Development and Architectural Description

by Mae Williams

On December 28, 1797, the Town of Windham voted to build the new meetinghouse on land belonging to **John Plummer** (Plummer's no-longer-extant house was located at the south side of the road),[34] and to move his existing upper barn from the location that was at the approximate center of the town.[35]

SECOND WINDHAM MEETINGHOUSE (1798-CA. 1833)

The present Windham Town Hall was constructed in 1798 near the geographical center of Windham as the Second Windham Meetinghouse.[36] On May 28, 1798, the Town voted to have the building committee invite 80 men to help raise the meeting-house frame and to provide "victuals and drink for the raisers." The selectmen were tasked with purchasing rum for the occasion (either ten gallons or a barrel), which was scheduled for early July.[37] John Plummer's barn was prepared for the move. He gave the town the three-acre building lot, and was reimbursed fifty dollars for the apple trees on the land.

The Meetinghouse frame was raised on July 4, 1798. "**Squire Gregg**" was the master-workman, and was noted as becoming "vexed" with the boisterous behavior of his crew.[38] Unfortunately, the records do not specifically identify Squire Gregg, and there were several members of the Gregg family living in Windham at the time that could have served as master-workman, including the David Gregg who served on the building committee.[39] It is also possible that this "Squire" Gregg was an itinerant master builder from a nearby town, and there are several Greggs known to have been constructing meetinghouse frames in the area at this approximate time such as Hugh Gregg (1765-1838) of Greenfield who constructed the Greenfield Meetinghouse frame in 1795[40] or Col. William Gregg (1730-1815) of Londonderry who built the frame for the Antrim Meetinghouse in 1785 (and most-likely also built the Londonderry Meetinghouse in 1769).[41]

It took the Town of Windham several years to complete the construction of the meetinghouse. On November 18, 1799, the town voted to raise £70 to glaze the house, and lay out the lower floor.[42] The first sermon was preached in the building by Rev. William Morrison of Londonderry on May 18, 1800.[43] In August, 1800, the Town voted to "build porches on the house and raise 50 pounds to pay for the expense."[44]

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[34] Lynne Emerson Monroe, "New Hampshire Division of Historical Resources Individual Inventory – Windham Town Hall (WND0111)" (1993), 2.
[35] William C. Harris, quoted in Morrison, *History of Windham...*, 257.
[36] Farmer & Moore, 625; Hazlett, 731, Hurd, 559; and Morrison, *Granite Monthly* Vol. X, No. 7, 251.
[37] William C. Harris, quoted in Morrison, *History of Windham...*, 257.
[38] William C. Harris, quoted in Morrison, *History of Windham...*, 257.
[39] For example, Alex Gregg; David Gregg; David Gregg, Jr; Thomas Gregg; William Gregg; and Williams Gregg, Jr. all signed the Association Test in Windham 22 years earlier, suggesting that there were multiple members of the family in town in 1798 (Batchellor, 163-164).
[40] Doris E. Hopkins, *Greenfield, New Hampshire, the Story of a Town 1791-1976* (Milford, NH: Wallace Press, Inc., 1977), 21 and Mae H. Williams and Misiaszek Turpin, pllc., *Historic Building Assessment of the Greenfield Meetinghouse* (2019), 16.
[41] Peter Benes, *Meetinghouses of Early New England* (Amherst and Boston, MA: University of Massachusetts Press, 2012), 235 and Mae H. Williams with Brian Gallien, *Condition Assessment of the Antrim Grange No.* 98 (2021), 5.
[42] William C. Harris, quoted in Morrison, *History of Windham...*, 257.
[43] Morrison, *History of Windham…,* 127.
[44] William C. Harris, quoted in Morrison, *History of Windham….*, 257.

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The reference to the construction of porches is an important clue as to the original type and layout of interior space within the structure. Twin-porch second-period barn meetinghouses were typical of Reformed meetinghouses of the Revolutionary War era. "Out of an estimated 1,155 structures built [in New England] during the second-period architectural style (roughly between 1699 and 1820), about 190 remain – a survival rate of a little more than 16 percent."[45] Second-period meetinghouses were often built to resemble large barns or houses in overall shape. Like the contemporary Georgian and Federal houses, these meetinghouses were usually side-gabled, and usually had five or seven ranked windows along the façade. Paneled doors were located at the center of the façade, beneath a decorative crown supported by pilasters. Windows were double-hung with 9 or 12 panes per sash and were set in rigid symmetry. Second-floor windows were located just below the cornice, which was often decorated with dentil moldings. The building had twin exterior porches at either gable end that sheltered the stairs to the gallery-level. The twin-porch layout was very common, particularly along the Contoocook River Valley between 1772 and 1804. "So densely concentrated was the style that at the beginning of the nineteenth century it was possible to ride north from Brookline [NH] to Bridgewater and pass through seventeen contiguous towns and see sixteen twin-porch meetinghouses."[46] Though there are no known contemporary descriptions of the building, physical examination of the current structure (which was heavily altered in 1868 and again in 1990) suggest that the Windham Meetinghouse faced roughly south, and that the primary entrance was at the center of the south façade and that the north and south elevations were divided into five equal bays. The pulpit was at the center of the north side, beneath an arch topped window (later moved to the west wall), and the exterior porches at either gable end allowed access to the gallery, which extended along the west, south, and east sides of the two-story interior space.

In March of 1803, the Town voted to raise £200 to paint the meetinghouse.[47]

It seems that the meetinghouse was still unfinished in 1805. That fall, the gallery was fitted up for choir and a pulpit was constructed of rough boards. The seats within the interior are described as having been "made of slabs (without back) and men and women were segregated on opposites of the building"[48] (as was typical). The interior was finished in time for the October 9, 1805 ordination of Rev. **Samuel L. Harris** (d. 1848) by the Londonderry presbytery, becoming the fourth settled minister in Windham.[49]The ordination was a day of celebration and was the first occasion of any kind after the raising of the building's frame. The village green and surrounding streets were said to be "black with the moving throngs from this and other

[45] Peter Benes, *Meetinghouses of Early New England*, 5.
[46] Peter Benes, "Twin-Porch versus Single-Porch Stairwells: Two Examples of Cluster Diffusion in Rural Meetinghouse Architecture," *(Old Time New England*, Vol. 69, 1979), 56.
[47]William C. Harris, quoted in Morrison, *History of Windham…*, 257.
[48]William C. Harris, quoted in Morrison, *History of Windham...*, 257.
[49]William C. Harris, quoted in Morrison, *History of Windham…*, 257. Also Farmer & Moore, 625; Hazlett, 731; Hurd, 559; Morrison, *History of Windham…*, 127; Morrison, *Supplement to the History of Windham in New Hampshire* (Boston, MA: Damrell& Upham, 1892), 52; and Morrison, *Granite Monthly* Vol. X, No. 7, 251. The old parsonage was sold to defer the cost of the new minister.

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surrounding towns."[50] Harris served as minister to the Town of Windham until he was dismissed in 1826 due to failing health.[51]

The new building was used for town meetings and the religious services of several congregations,[52] and the first meetinghouse was "transported to Salem and became a family dwelling."[53] The center of Windham was relatively undeveloped at the time of the Second Meetinghouse's construction. In the 1770s, a dam and mill were constructed near the center of the Town (the remains of which are preserved as an archaeological site, DHR0106), and a nail factory was constructed upstream by Alexander Park in ca. 1775-1780.[54] The construction of the meetinghouse at this central location became the impetus for the settlement of the village of Windham Center.[55] The area quickly became a stopping point on the east-road through town (now Route 111). In 1793, a small pound was constructed near the James Cochran House (WND0116/21 Indian Rock Rd/11A-570), and by the early 1800s, the area had grown to include several blacksmith shops, as well as a small tavern operated by Nancy Williams by 1810, and a second tavern in 1820 (no longer extant).[56] Private residences also grew up around the new hall, including the ca. 1810 Wilson House (WND0118/17 Indian Rock Rd/11A-540),[57] 1811 Rev. Loren Thayer House (WND0121/1 Indian Rock Rd/11A-450),[58] 1828 Ebenezer Lewis House (WND0119/15 Indian Rock Rd/11A-530), and 1829 Jesse Anderson House (WND0117/19 Indian Rock Rd/11A-550).

It was not until 1814, nearly sixteen years after the frame of the meetinghouse was raised, that the building was finished. In February 1814, the town voted to finish the meetinghouse "with materials equally as good as those used in furnishing the meeting-house in the First Parish in Londonderry."[59] The house was shingled, clapboarded, and painted, with the expense paid through the ministerial fund.

[50]Morrison, *Supplement to the History of Windham…*, 52.
[51]William C. Harris, quoted in Morrison, *History of Windham..*, 257. Also Hazlett, 731; Hurd, 559; and Morrison, *Granite Monthly* Vol. X, No. 7, 251. Harris stayed in Windham until his death on September 6, 1848 (Hurd, 559).
[52] Monroe, WND0111, 2.
[53] Town History Committee, 43.
[54] Lynne Emerson Monroe, "New Hampshire Division of Historical Resources Area Form – Windham Center Historic Area" (1993), 4
[55] Monroe, "…Windham Center Historic Area," 2.
[56] Monroe, "…Windham Center Historic Area," 5.
[57] Monroe, "…Windham Center Historic Area," 3.
[58] Monroe, "…Windham Center Historic Area," 2.
[59]William C. Harris, quoted in Morrison, *History of Windham...*, 257.

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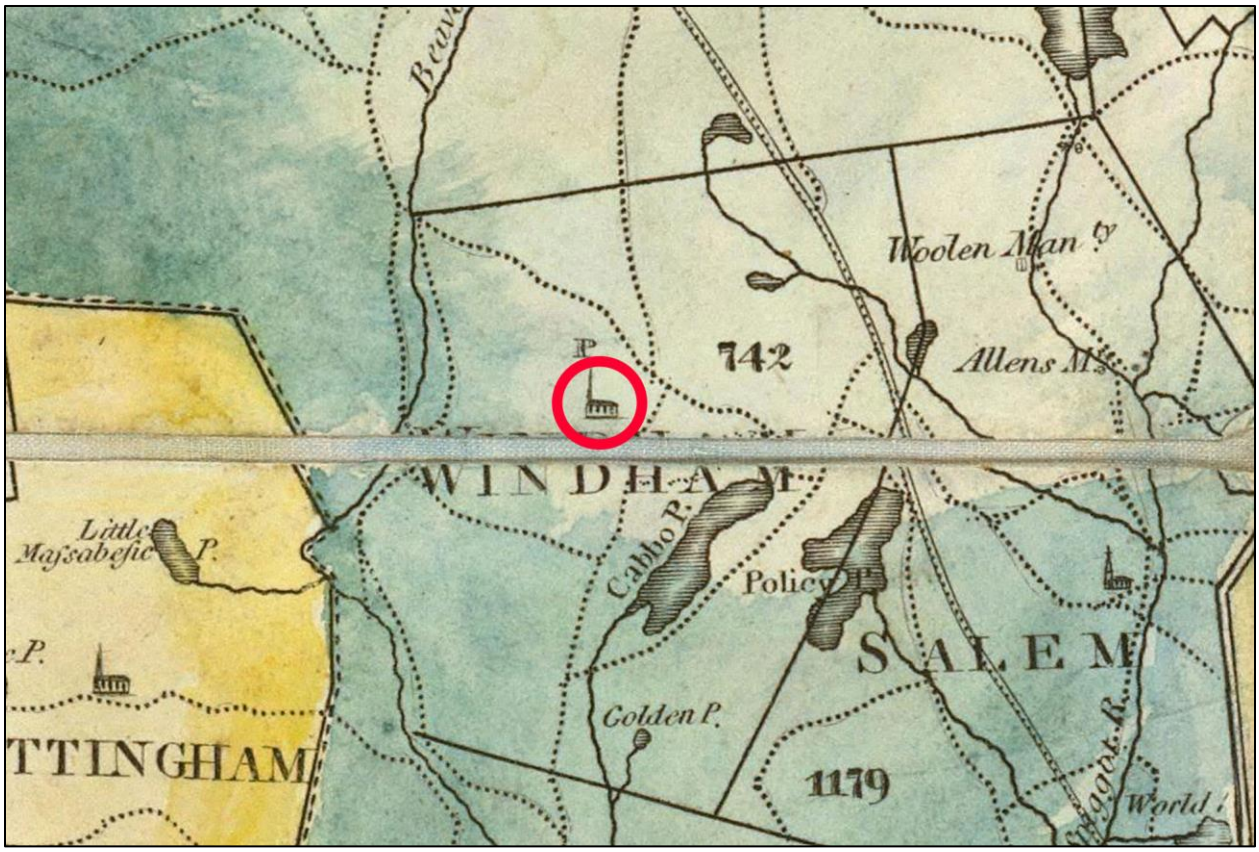

Figure 2: Excerpt from the 1816 Philip Carrigan "Map of New Hampshire, 1816" showing the location of the 1798 Second Windham Meetinghouse (Dartmouth College Digital Collections)

Up until the passage of the "Toleration Act" in 1819, the Church was a town function and town responsibility with town meeting and religious services held in the same "meeting house." These meeting houses were the only public buildings that existed during the first two centuries for many New England towns, and the town employed the minister, whose salary was a separate tax on all voters, regardless of denomination. Most New Hampshire towns supported a Congregational Church; however, the Scotch-Irish communities of Windham, Londonderry, Antrim, and others supported a Presbyterian minister and Church. After 1819, no person could be taxed against his will to support a specific religion, and many churches were removed from meetinghouses as a result.[60] Separation was a slow process, as the state was not allowed to pass *ex post facto* laws, meaning that pre-existing contracts were allowed to continue and receive public support until they ran out.[61] Because of this arrangement, many churches and town meeting houses were constructed across New Hampshire between 1820 and 1850.

[60] Some towns opted to keep both functions in one building by allowing multiple churches to use the existing meeting hall. The Sunday mornings of the year were then divided up, based on the size of each congregation.
[61] Everett S. Stackpole, *History of New Hampshire,* Vol. IV, 230.

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In Windham, the Presbyterian Church continued to use the Town meetinghouse until after Rev. Harris was dismissed on December 6, 1826 due to failing health.[62]During this tenure, the Presbyterian Church shared the building with the Methodist and Unitarian Churches.[63]On March 5, 1827, a meeting was called to form a religious society in the Town of Windham and choose a committee to draft a constitution for the proposed society.[64] On March 19, 1827, the newly-formed Presbyterian Religious Society of Windham voted to excuse interim Deacon Robert Dinsmoor and chose Samuel Morrison to fill the vacancy until a more permanent minister could be found.[65] Just a few weeks later, on April 9, 1828, Rev. **Calvin Cutler** (1791-1828) was installed in the new Society. Cutler had been voted to preach three Sabbaths in January, and had been invited to become the new permanent leader of the Church on February 5, 1828.[66] Cutler remained at this post until his death on February 17, 1844.[67]

Up until about 1828 there was no means of heating the Meetinghouse. Many churches did not have central heat, and people were forced to rely on heat from foot stoves during the long sermons. In winter, many services were given an intermission at noon, during which people would retire to neighboring houses and taverns, to warm themselves and restock their stoves for the afternoon service.

Though cast-iron Dutch plate woodstoves were available in America as early as the 1630s, high-price and custom kept them from being common in Anglo-American households.[68] Woodstoves did not gain popularity in America until after David Ritterhouse added an L-shaped stovepipe to the late eighteenth-century Franklin-Stove to provide better ventilation. As the manufacture of cast iron was further industrialized in the 1820s, the price of stoves dropped considerably, leading to increased availability of air-tight cooking and heating stoves by the late 1830s.[69]

"Such a startling innovation as putting a stove in the [town-owned] meeting-house"[70]required a majority vote at a public meeting. In 1828, meeting was called to vote to install two stoves in the meeting-house.[71]

> Mr. [Jonathan] Parker [1783-1865] opposed the plan as a useless extravagance, and as deleterious to health. The aggressive element, as is usual in such mattes, was dominant, and two huge wood-burning stoves were placed in the church. Mr. Parker's pew was on the wall side, in the gallery. For some time after he used to go into his pew, raise the window, take off his coat, and sit in his shirt-sleeves to avoid the heat of the 'cussed stoves.'[72]

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[62] Leonard A. Morrison suggests that the Reverend's voice was failing and that was the health issue that lead to his dismissal (Morrison, *History of Windham*…, 19.
[63] Morrison, *Granite Monthly* Vol. X, No. 7, 252.
[64] Morrison, *Supplement to the History of Windham…*, 11.
[65] Morrison, *Supplement to the History of Windham…*, 12.
[66] Morrison, *Supplement to the History of Windham…*, 19.
[67] Hazlett, 731; and Morrison, *Granite Monthly*, Vol. X, No. 7, 252.
[68] Priscilla J. Brewer, *From Fireplace to Cookstove: Technology and the Domestic Ideal in America* (Syracuse, NY: Syracuse University Press, 2000), 24.
[69] James L. Garvin, *A Building History of Northern New England* (Hanover, NH and London: University Press of New England, 2001), 116.
[70] Morrison, *History of Windham…*, 732.
[71] According to Morrison, these were the first wood-stoves in all of Windham (Morrison, *History of Windham…,* 254.
[72] Morrison, *History of Windham…*, 732.

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Others had argued that, should they sit in a warm room during services, and then go out-doors, they would surely die of cold.[73]

By 1833, the Presbyterian Religious Society of Windham had grown tired to sharing their meetinghouse with the Unitarians, Methodists and Congregationalists and any other groups that wished to meet in the town-owned hall.[74] The Presbyterian Religious Society held a special meeting on July 17, 1833 "to see if said society will chose a committee to compromise with the several organized religious denominations in Town relative to their claims to the meeting-house and ministerial fund."[75] Local Unitarian and Methodist societies had been formed in Windham by this date, and made claims to a portion of the town's ministerial fund and proportionate use of the meeting-house in accordance with the Toleration Act. As the Presbyterian Church did not achieve the compromise they had been wanting (aka sole use of the meetinghouse), and the Town voted to make them share the building with other area religious societies, the Society held a special meeting on October 16, 1833 and voted to build their own meeting house.[76] The Presbyterian Religious Society withdrew from the 'Old Meeting House' and met for a time "in a hall"[77] while their new church was constructed. The Presbyterian Religious Society raised $2,450 by subscription and the new church was constructed in 1834[78]at what is now 1 Church Road (Parcel 11C/1120) and dedicated January 14, 1835.[79]

[73] Morrison, *History of Windham…*, 254.
[74] Town History Committee, 43.
[75] Morrison, *Supplement to the History of Windham…*, 23. The Windham ministerial fund is sometimes referred to as the "Wilson Fund" after the man who donated it, James Wilson (Glenn A. Knoblock, *Historic Meetinghouses and Churches of New Hampshire* (England: Fonthill Media, LLC, 2019), 427).
[76] Morrison, *Supplement to the History of Windham…*, 24.
[77] Morrison, *Supplement to the History of Windham…,* 24.
[78] Much was made of the fact that the building was constructed "without the aid of alcoholic spirits," according to the Town History Committee, 43. (Morrison, *Supplement to the History of Windham…*, 24; and Town History Committee, 43.)
[79] Morrison, *Supplement to the History of Windham…*, 324.

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THE HISTORIC WINDHAM TOWN HALL (1833-1970)

With the withdrawal of the Presbyterian Religious Society from the 'Old Meetinghouse' the building became a secular structure and was renamed the Windham Town Hall.[80]

The population of Windham peaked at 1,006 in 1830 and dropped to 818 by 1850,[81] probably due in part to western expansion and people fleeing the rocky, hilly soils for larger more easily farmed land to the west. Still, agriculture persisted with 5,561 bushels of Indian corn, 16,588 bushels of potatoes, 1,659 tons of hay, and 1,936 pounds of wool produced in the Town in 1849.[82] By the 1850s, the town included two stores (one of which was located opposite the Town Hall, figure 3), a woolen factory with a capital of $5,000 and 8 employees, a mattress factory with a capital of $4,500 and 4 employees, one hotel, and seven common schools and a single religious society: the Presbyterian Church (apparently, by this date, the Methodist and Unitarian Churches of the 1830s had disbanded).[83]

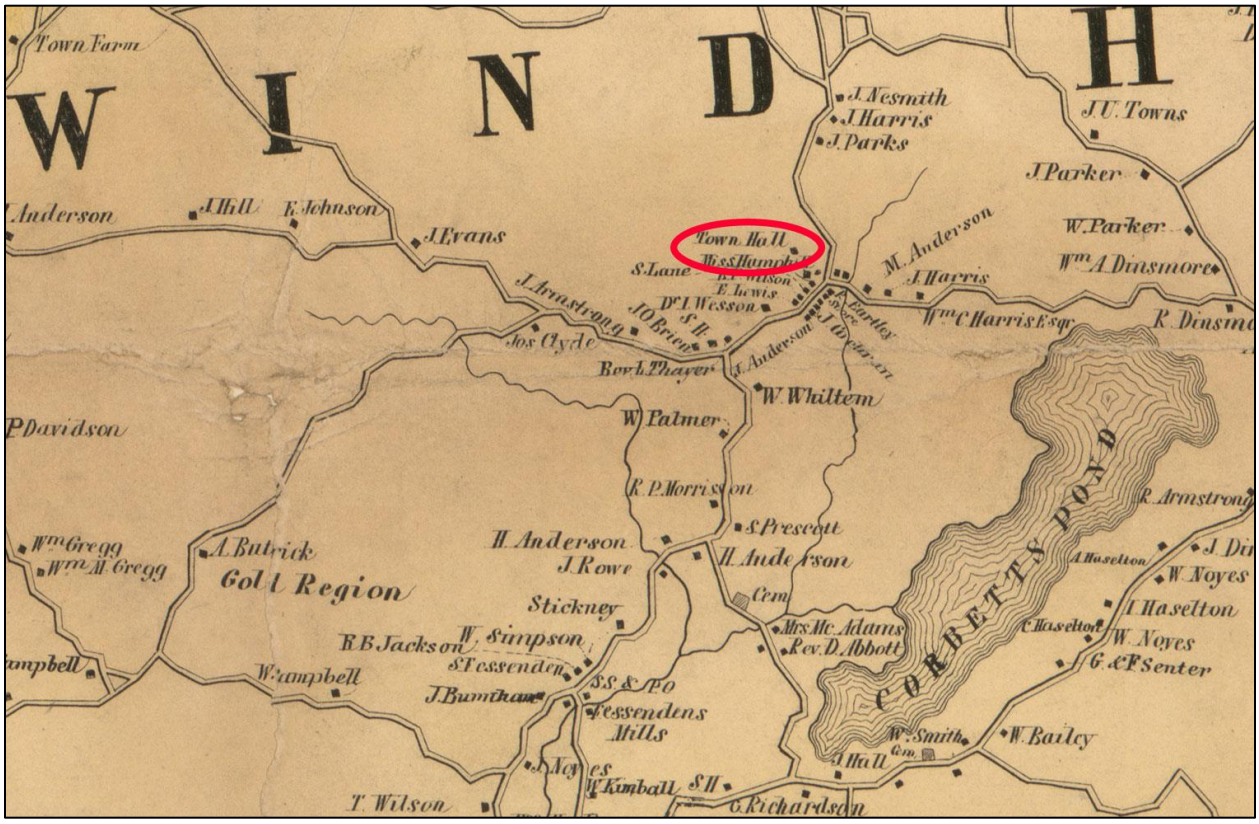

Figure 3: Excerpt from the 1857 "Map of Rockingham County, New Hampshire" showing the Town Hall and surrounding village and drawn by J. Chance (Library of Congress)

[80] The business meetings of the Presbyterian Religious Society continued in the Town Hall until 1841, despite the religious services having shifted to the new building in 1835 (Knoblock, 427).
[81] 1830 and 1850 US Federal Population Census of Windham, Rockingham, New Hampshire.
[82] John A. Hayward, *Gazetteer of New Hampshire, Containing Descriptions of All the Counties, Towns, and Districts in the State…* (Boston: John P. Jewett, 1849), 145.
[83] Charlton, 430.

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On April 6, 1868, the Town of Windham voted to repair and remodel their Town Hall and raised $1,500 for the project and appointed George W. Weston, William C. Harris, and George Copp to a building committee to oversee the renovation.[84]Plans and specification were drawn up by **Joseph B. Sawyer** (1823-1897) of Manchester.[85] The exterior of the former meetinghouse was completely remodeled, and the gallery was removed and the single hall divided into two stories with an upper and lower hall. These halls were connected by an interior staircase at the northeast corner of the building with small selectmen's room in the southeast corner of the building (now kitchenette), and library room above (which also functioned as the ante-room for the Grange and is also now a kitchenette). The committee moved a large, round-topped window which was originally located immediately behind the pulpit in the original building, to the back part of the upper in order to "preserve this memento of a bygone generation, and relic of the handiwork of our fathers."[86]

Carpentry commenced on June 1st, "under the direction of Mr. Stickney of Derry assisted by Messrs. Bodwell and Wheeler of Derry and J. N. Colman of Windham; James Marden of Windham was mason. Messrs. Smith and Underhill of Manchester employed the painters."[87]The total project ended up costing $2,765.63,[88] and the new building was dedicated on September 22, 1868 amid a lavish ceremony.

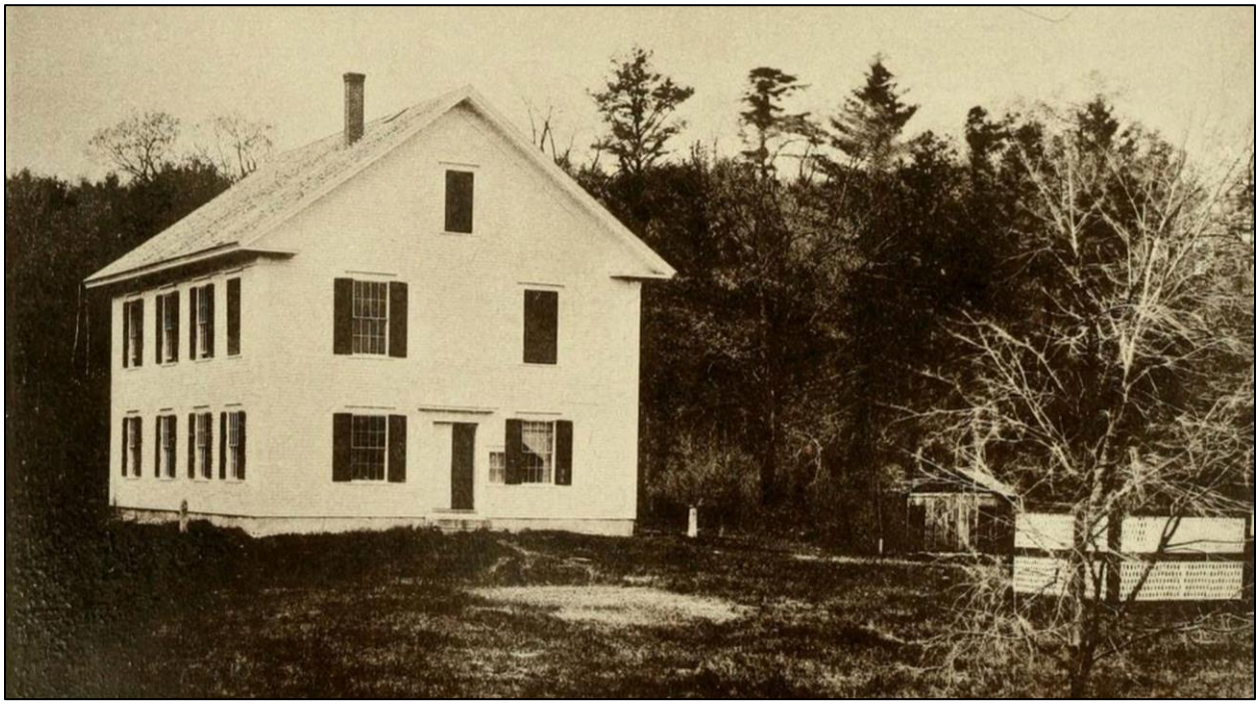

Figure 4: Town Hall in ca. 1883 (from Morrison, The History of Windham*…, 192)*

[84] Morrison, *History of Windham…,* 256.
[85] Morrison, *History of Windham…*, 256 & 258.Sawyer was a civil engineer (not architect) and moved to Manchester from Derry in the 1840s and "superintended work on many of the large corporation buildings in that city" (*Engineering Record* (June 5, 1897), 3). Additional information on Sawyer's career may be uncovered with additional research.
[86] Morrison, *History of Windham…*, 265.
[87] Morrison, *History of Windham…*, 258.
[88] Morrison, *History of Windham*…, 256.

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In May 1871, the **Nesmith Free Public Library** was created in a room on the still new second-story of the Town Hall when the first few books of the collection were shelved.[89] In April of that year, Colonel Thomas Nesmith (1788-1870) left a $3,000 bequest to the town toward establishing a public library. Though Nesmith was a prominent citizen of Lowell, Massachusetts, he was born in Windham and wanted to give back to his home town. Two-thirds of the bequest was spent on books, and one third was "put at an interest…to be perpetually paid by the town for the replenishment of the library with new stocks."[90]On June 24, 1871, the library was opened with a collection of 741 volumes.[91] The library grew to 1,600 volumes by 1872.[92] By the early 1880s, local residents were borrowing approximately 4,500 books annually from the collection that had grown to just under 2,500 volumes.[93] By the 1890s, the library had outgrown its space within the building, and in 1898 George W. Armstrong, a native who had moved to Brookline, Massachusetts, presented the town with a new, purpose-built library building, which was dedicated January 4, 1899.[94]

The Town Hall was used for various town activities through the 1880s and 1890s. On January 14, 1885, about 150 people sat down to a celebratory dinner in honor of the 50th anniversary of the dedication of the Presbyterian Church at tables within the upper and lower halls.[95] On February 12, 1892, the 150th anniversary of the town's incorporation was "observed by a festival at the lower town hall."[96] The same year, the school board held festivities to celebrate the 450th anniversary of the "Discovery of America" in the upper hall. When the Windham Grange was organized in 1892, it held meetings in the upper rooms of the Town Hall.[97]

[89] Lisa M. Mausolf, "National Register of Historic Places Registration Form: Armstrong Memorial Building" (2018), 10.
[90] Hurd, 560.
[91] Hazlett, 732. Hurd, 560 lists the alternate date of June 21, 1871 for the library dedication.
[92] Hazlett, 732.
[93] Mausolf, 11.
[94] Hazlett, 732.
[95] Morrison, *Supplement to the History of Windham…*, 59.
[96] Morrison, *Supplement to the History of Windham…*, 99.
[97] The Windham Grange was still using the upper rooms of the hall in 1993, when the building was inventoried by the Preservation Company (Monroe, WND0111, 2). According to Arthur Merrill of the NH State Grange, the Windham Grange consolidated with the Wattanick Grange in Hudson sometime after 1983 (email correspondence with Beth Merrill, Arthur's wife, on March 1, 2021).

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Figure 5: Windham PO in 1892 (D. H. Hurd & Co., Town and City Atlas of the State of New Hampshire. *Boston: D H Hurd & Co., 1892)*

Some maintenance work was done to the Town Hall in the early 20th century. The Town paid H. J. Harwood $115 for new seats for the upper hall and I.J. Goodwin $0.25 to repair the woodstove in 1900 or 1901.[98] In 1906-1907 more extensive repairs were made to the Town House when the Town paid George E. Seavey $53.57 for 15 ¼ M [sic] shingles, $4 for 235 feet of boards, $2.00 for 75 lbs of nails; J. B. Goddard $22.31 to shingle the town house; and C. O. Huse $131.87 to paint the town house (as well as the hearse house and gates of the Cemetery on the Plains).[99]

Electricity was first introduced throughout Windham between the 1930s and 1945. Though it is unclear as of writing exactly when electrical service was added to the town hall, it is likely that the public building was wired for electricity at approximately the same time as electrical service was installed along Lowell Road in 1939.[100]

[98] Town of Windham. *Annual Report of Officers, Trustees, Agents, and Committees of the Town of Windham for the year Ending February 15, 1901* (Nashua, NH: F. E. Cole & Co., Printers and Book Binders, 1901), 10.
[99] Town of Windham, *Annual Report of Officers, Trustees, Agents and Committees of the Town of Windham for the Year Ending February 15, 1907* (Nashua, NH: F. E. Cole & Co., Printers and Book Binders, 1907), 8.
[100] Town History Committee, 53. Due to COVID-19 restrictions during the research phase of this project, research was somewhat limited by what was available online. In-person examinations of town reports from this era may reveal

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By the mid-twentieth-century the Town Hall needed some basic upgrades. In 1951, Frank Byron was paid $75 to develop plans and specifications for repairing the foundation (figure 6).[101] At this time, several new piers with footings were installed beneath the first floor, one or two of the cellar girts were replaced, and some of the floor joists (particularly at the north side of the building were replaced). Four 3-light cellar windows were also added at this time, presumably to allow for increased light and ventilation beneath the building. Byron was also awarded the contract for the construction itself, and was paid $1,742.25 for the repairs.[102] Money was also expended in 1951 for the installation of a new water system to the building, and the back-grading of the site. At the March 11, 1951 Town Meeting, Warrant Article 31 asked to purchase and install a new heating system in the town hall.[103] An addition was constructed at the rear of the building to provide a boiler-room for the new system, which was installed in 1951-1952,[104] as well as space for restrooms. In 1952-1953 a new ceiling was installed in the first-floor hall after the Selectmen noted the need in their report to the Town.[105] Though the selectmen also asked to have a new floor installed in the second-floor hall in 1952, this was not installed until 1953-1954. In their 1954 Report to the Town, the Selectmen wrote:

> The property care and use of the new hardwood floor in Town Hall cannot be overemphasized. Application of wax at dances and caution in smoking or serving refreshments should help keep the floor in good condition for many years.[106]

This floor had been installed by Frank Byron for $880.[107] This year, the Selectmen continued their upgrades to the building by asking to modernize their "outmoded toilet facilities" with modern, sanitary fixtures.[108]

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more specific information on the wiring of the building. No early writing was observed in the building during the site visit, as all early writing (presumably rubberized fabric coating-sheathed wire if it was done in ca. 1940) has been replaced with plastic-insulated wire.

[101] Town of Windham, *Annual Report* (1951), 29.

[102] Town of Windham, *Annual Report* (1951), 29.

[103] Town of Windham, *Annual Report* (1951), 7.

[104] The addition was designed by Brown &Petzold for $300 and constructed by Joseph B. Boda (paid $334.20). The Town paid John Deane $69.75 to clean the chimneys; Martineau Bros., Inc. $1,350 to install the new furnace; Edward J. Sullivan $15 to install the foundation for the tank; Ivan Gibbs $29.53 for installing the door; A. G. Gosselin Co., Inc. $215 for a stove (presumably for back-up heat?) for which they paid Guelite Gas Service $87.54 to install; and Scott & Allison $850 for painting. The same year, the Town also paid Joseph B. Boda $198 for cabinets and $246.25 for screens, Scott & Allison an additional $174 for painting, and S. A. Shiepe Co., Inc. $73.28 for shades, suggesting additional ongoing renovation projects (Town of Windham, *Annual Report* (1952), 27.

[105] Town of Windham, *Annual Report* (1953), 11. The ceiling was installed by Joseph B. Boda, and the lights by H.L Hammer (Town of Windham, *Annual Report* (1953), 33).

[106] Town of Windham, *Annual Report* (1954), 8.

[107] Town of Windham, *Annual Report* (1954), 32. The ceiling of the upper hall was also apparently redone at this time by Joseph Boda, and new lights were also installed by H. L. Hammer.

[108] Town of Windham, *Annual Report* (1954), 6 and 8.

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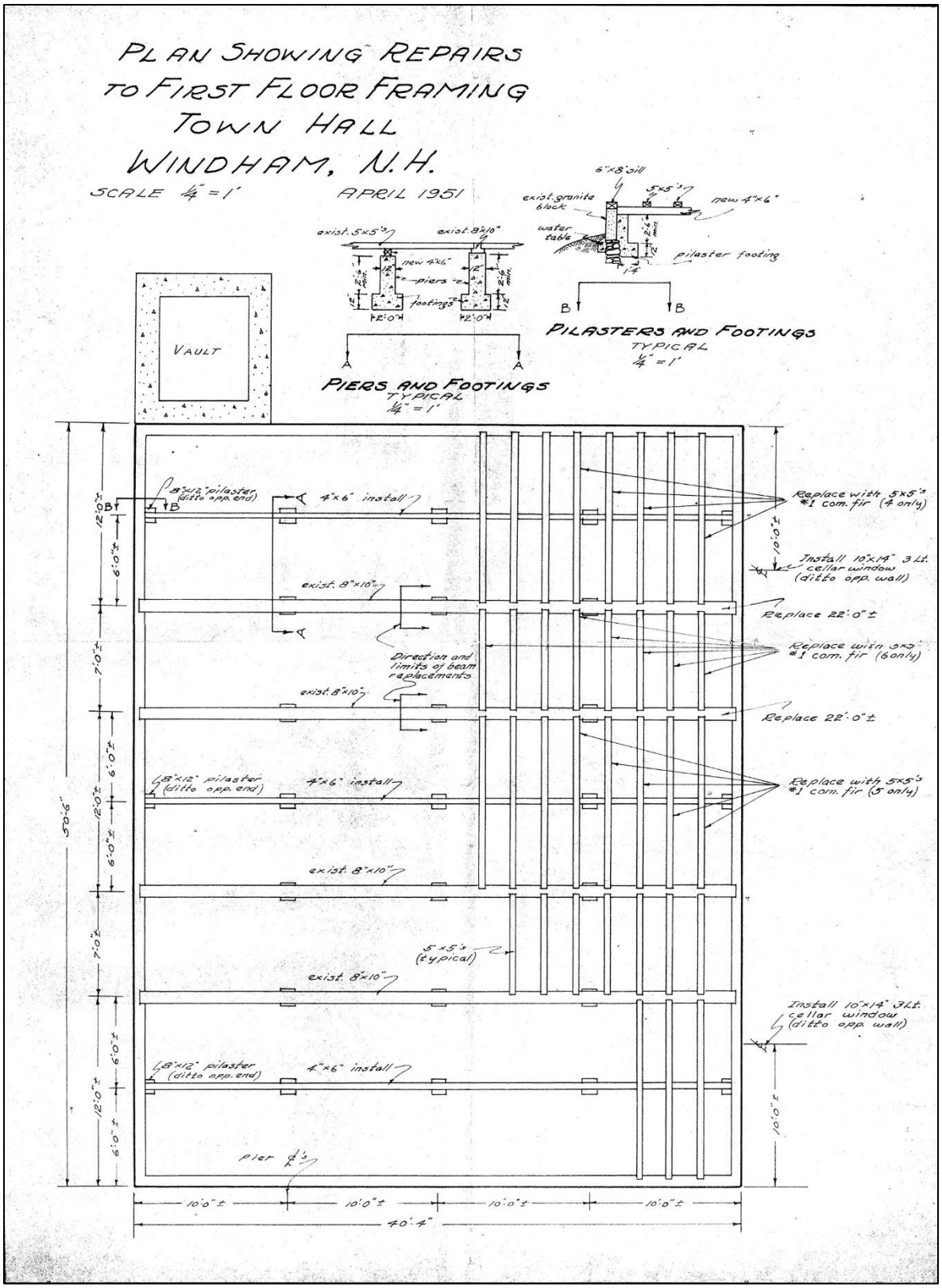

Figure 6: April 1951 Plan of First floor Framing (Town Assessor's Files)

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WINDHAM TOWN HALL: MODERN ERA (1971-PRESENT)

By the 1990s, the Town of Windham realized they needed to upgrade office space and bring the Town Hall into compliance with modern building code by creating an accessible meeting place. The Town explored several different options before settling on the present rear addition. A warrant article asked to expend $730,000 to add an addition to the Town Hall and complete interior renovations was defeated at the 1989 Town Meeting. At the same meeting, another article to raise $73,000 for renovations to the interior to include installing an elevator, handicapped bathrooms, and painting was approved.[109]

The following year (1990), the Town Hall was renovated for $73,000, and a new rear addition was constructed to replace the old bathroom and enclosed stairwell with new accessible bathrooms, a fire-rated stair, and an elevator to improve accessibility to the second floor and provide proper egress. The plans were designed by **Dunderdale Associates** of Windham, and the construction manager for the project was **Kelly Construction** of Manchester. The first-floor hall was brought back to the exterior studs, and divided into multiple rooms, with a hallway running down the center of the space with offices for the Tax Assessor, Town Clerk, and Tax Collector off of either side. The historic columns were left in-situ as part of the design.

In 1993, the Town Hall building was surveyed as part of a larger potential "Windham Center Historic Area/Civic Historic District" and individually by the Preservation Company of Kensington.[110] Though the Town Hall was determined to be individually eligible for the National Register of Historic Places under Criterion A for event, the larger district was determined not-eligible for the National Register due to overall loss of integrity.

In 1997, the first and second-floor historic (likely ca. 1868) windows of the Town Hall were replaced with the present sash. Window Masters made and installed the new eight-over-eight double-pane wooden sash to match the existing for $16,770[111] (the original 1798 window at the west elevation of the second floor remained in place). Willis Painting painted the building exterior for $7,029.[112] Eagle Scout Mike Bloudeau repaired/replaced the building blinds and remounted them in their current, fixed, positions.[113] In 1998, a mobile cable studio for the local TV station was placed at the southwest corner of the building.

The Town expended $24,760 to have the building painted by Target New England in 2011. Concerns were raised that the exterior paint was already peeling within five years, leading to some discussion of covering the entire structure with vinyl siding or concrete board. The Town Hall is listed as a Capital Improvement Plan project between 2021 and 20208, raising the concerns of the Historic District Commission/Heritage Commission, who aim to preserve the building and ensure that all future building treatment options follow the *Secretary of the Interior's Standards.*

[109] David Sullivan, Windham Town Administrator (ca. 1990-present) in email correspondence with author.
[110] The survey area included 19 properties: five public buildings, nine residences, a former store, two other structures, and a mill site.
[111] Wendy Williams (Windham Historic District Commission/Heritage Commission Chairperson), in conversation with the authors, December 21, 2020.
[112] Wendy Williams, in conversation with the authors, December 21, 2020.
[113] Wendy Williams, in conversation with the authors, December 21, 2020.

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WINDHAM TOWN HALL ARCHITECTURAL DESCRIPTION

The identification of the character-defining features of historic properties like the Windham Town Hall is a critical first step in planning for its future life. Before applying *The Secretary of the Interior's Standards,* it is important to understand what physical features of the building help to tell the story of its history and architectural importance. The *Standards* recognize the importance of maintaining these original features and spaces while rehabilitating the property for a compatible use and future life. Recognizing that a property may have original features throughout that are all "character-defining" the *Standards* allow for the categorization of the features into **primary** and **secondary** spaces and features.

Primary spaces and features are those that should not be changed or removed unless they are beyond repair (at which time they should be replaced to match the old in design, color, texture and materials).

Secondary spaces and features are those that can be altered *when necessary* to accommodate compatible change that allows new and continued use of the property.

Further, the guidelines of the *Secretary of the Interior's Standards* state that "identification, retention, protection and repair" should be given first priority in every rehabilitation project. Interior spaces are not only defined by their features and finishes, but by the size and proportion of the rooms themselves and how they functioned in the historic use of the space. Distinctive features and finishes should be retained as much as possible in primary interior spaces, whereas extensive changes are more acceptable in the secondary interior spaces that service the primary or functional portion of the building. This does not mean that secondary spaces are insignificant or that all character-defining finishes can be removed from secondary spaces; it just means that more leeway is given for change needed to accommodate modern use in these areas.

SITE DESCRIPTION

The Windham Town Hall is located at the top of a low knoll, in the Town's municipal center at the village of Windham Center. The building shares the 3-acre parcel at 3 North Lowell Road with the 1898 Armstrong Memorial Library (WND0112, individually listed to the National Register of Historic Places in 2018), 1941 former Windham Fire Station (WND0110, now town offices), and ca. 1861Town Pound (WND0109). The lot is bounded to the southwest and northwest by a largely wooded 11.4-acre vacant lot (1 North Lowell Road/11-A-580), to the northeast by a private home on a 3.971-acre lot (5 North Lowell Road/11-A-600), and to the southeast by North Lowell Road (figure 7).

The Windham Town Hall sits at the center of the roughly rectangular lot, between the Armstrong Memorial Library and former Fire Station, at the northwest side of a semi-circular driveway. A narrow green separates the driveway from North Lowell Road, and the hillside to the north and west is wooded. There is a large parking lot at the southeast and northeast sides of the building. Several mature shrubs are located at the southeast elevation, between the parking area and main entrance. There is a narrow strip of gravel between the parking lot between the Town Hall and former Fire Station at the northeast elevation. A flat lawn is located between the southwest elevation and adjacent former Library building (now Museum). An asphalt path leads from the parking lot to the secondary, accessible entrance through the modern addition at the northwest elevation.

Up until the 1950s, when it was bypassed by Route 111, the section of North Lowell Road to the southeast was a major thoroughfare through Windham. Church Road and the section of North Lowell Road was a

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major east-west road through the community, and North Lowell Road was a primary north-south route. This central village developed in the early 19th century, around the Meetinghouse (now Town Hall), and became the municipal core of the Town of Windham.

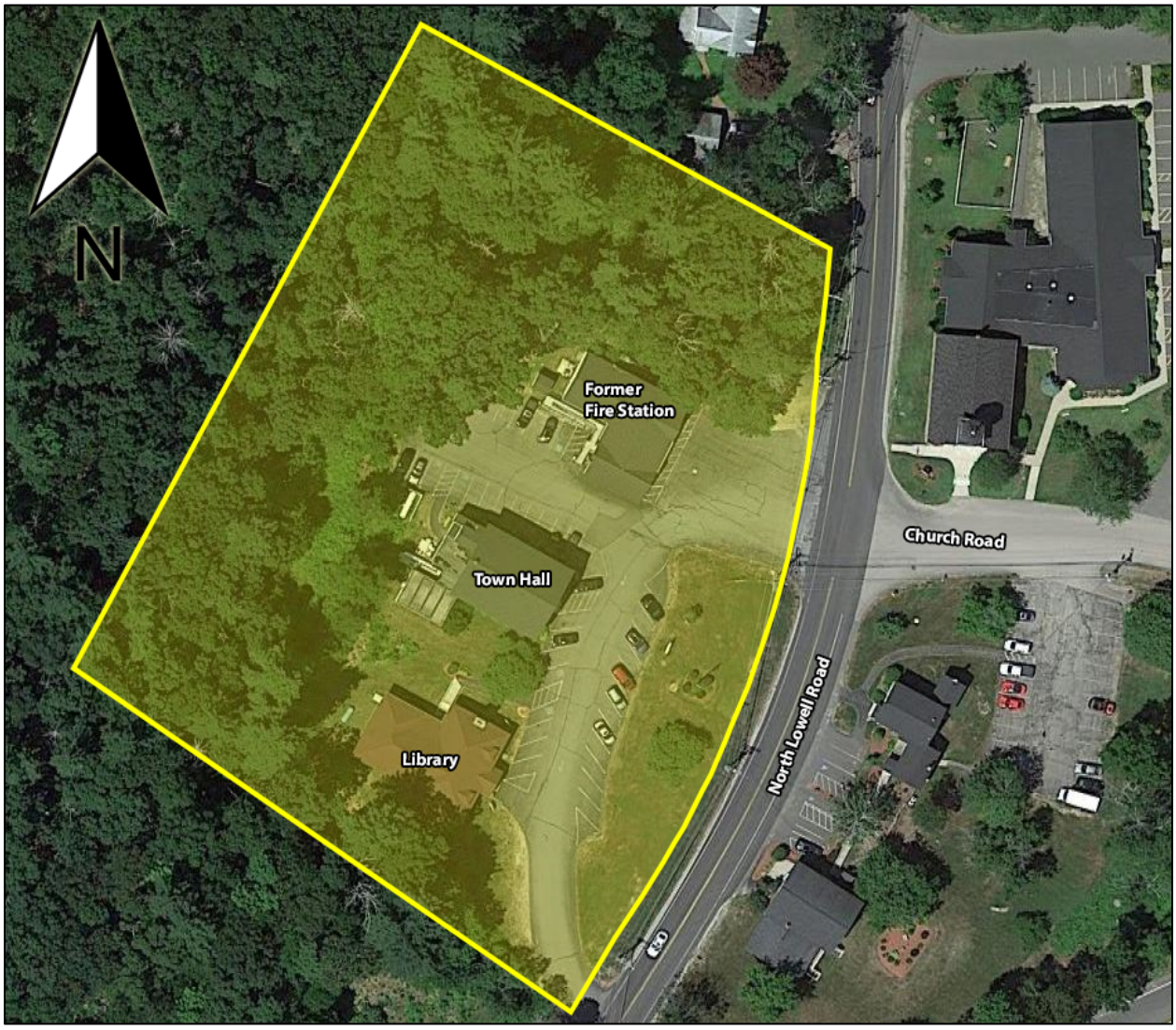

Figure 7: Aerial image of Windham Town Hall with Tax Map superimposed

Character-Defining Features of the Site		
Primary Features	***Secondary Features***	***Non-Historic Features***
• *Site at the crossroads in the center of Windham Center* • *Proximity to Library, Fire Station, Presbyterian Church, and Town Pound*	• *Driveway* • *Mature shrubs*	• *Parking lot* • *Asphalt Walkways*

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Figure 8: Windham Town Hall photographed from southeast, showing southwest and southeast elevations.

EXTERIOR DESCRIPTION OF THE TOWN HALL

Constructed as the second Windham Meetinghouse in 1798, the Windham Town Hall was substantially remodeled in 1868 and ca. 1990.The gable end of the building faces southeast, overlooking the intersection of North Lowell Road and Church Road. Though the timber-framed building was constructed in 1798, the exterior appearance of the approximately 41 by 51-foot building is highly reflective of the 1868 building renovation. There is a small addition off of the northwest elevation of the building, which was added in 1990.

The roof of the main block has a moderate pitch and is covered with asphalt shingles. The eaves have a very wide projection with returns at the gable ends and boxed soffits along the side elevations (figure 9). The projecting eaves and moldings were added to the building as part of the 1868 renovation (the original Federal-style building would have had very minimal eave projections).

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Figure 9: Detail of eave return

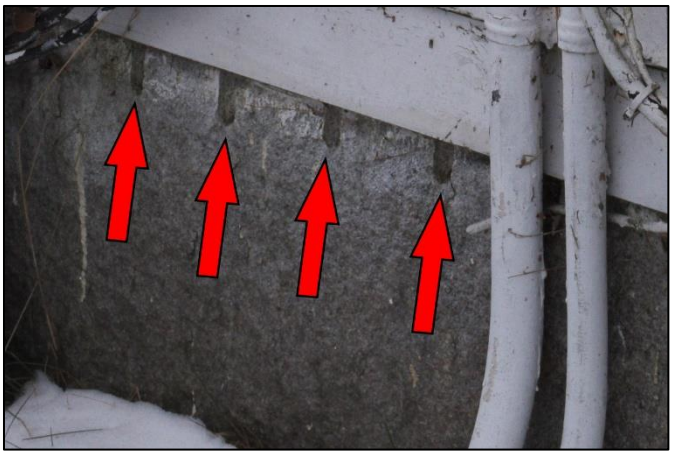

Figure 10: Plug and feather marks in granite underpinning

The building rests on granite underpinning atop a very low rubble-stone foundation. The granite underpinning has cylindrical splitting marks. These marks are indicative of the plug-and-feather splitting technique that superseded earlier stone-splitting techniques in New Hampshire in about 1830,[114] suggesting that it was added after the original date of construction (figure 10).

The post-and-beam frame is 2 ½ stories, with a three-bay façade that is approximately 41 feet wide. Though the fenestration of the southwest and northeast elevations gives the appearance that the building is four bays in length, the approximately 51-foot-long building is actually five structural bays. The walls are sheathed in wooden clapboards that are butted together. The building trim is simple, with plain corner boards, water-table, and frieze. The construction and details are typical to the mid-nineteenth-century, and these elements likely date to the ca. 1868 remodel.

The primary entrance to the Windham Town Hall is through a set of double-doors at the center of the façade (southeast elevation, figure 11). Here a set of three granite steps with pipe rails lead up to a set of late nineteenth-century paneled double doors with narrow vertical lights above the lock rail. The door is slightly recessed and framed by simple, plain board pilasters under an entablature with projecting cornice. A colonial-revival lantern-style light hangs from the cornice over the door.

Figure 11: Primary Entry

[114] James L. Garvin, *A Building History of Northern New England* (Hanover, NH: University Press of New England, 2001), 7.

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There is a small recessed sign-board to the north side of the entry, behind a four-light window. The trim of the message board mirrors that of the main entry.

The windows throughout the first and second floor of the southeast, southwest, and northeast sides of the building are double-hung eight-over-eight wooden sash (figure 12). The window sash was installed in 1997 to replace very similar sash that likely dated to the 1868 renovation. Nearly all of the windows are flanked by wooden louvered blinds. The blinds were likely originally added in the second half of the nineteenth century and were restored in the 1990s. When the blinds were rehung, they were placed outside of the window trim, and fastened to the side of the building. Photographs from the turn of the 20th century show the blinds as hinged and functional (mounted onto the window trim).

Figure 12: Typical Town Hall window

There is a single surviving eighteenth-century window at the center of the northwest elevation, above the modern addition (figure 13). This multi-pane arched window is centered at the back of the second-floor hall. The window muntin profile and sash configuration are typical of a Federal-era window, and it is quite possible that this widow was salvaged when the building was renovated and moved to this location at that time. It is very likely that this window was originally located at the center of the northeast (north) side of the building, lighting the pulpit inside.

There are several modern projections off of the northwest (rear) elevation of the building (figure 14). In the late 20th century, a two-story projection with gable-roof was constructed to house an elevator at this elevation, with a sloping roofed area around it to shelter a set of stairs, and a single-story attached addition to house two new accessible restrooms. This complex ca. 1990 addition has an asphalt shingle roof, and synthetic siding and is set on a concrete pad. A single fixed window illuminates the stairway. This addition is subservient to the Town Hall and differentiated from and compatible with the historic building.

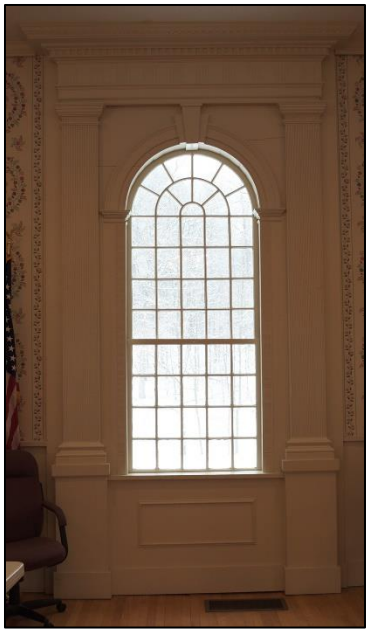

Figure 13: Surviving Federal-style window, northwest elevation

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Figure 14: Modern additions at northwest elevation (rear)

When it was constructed in 1798, the primary entrance to the building was likely at the center of the southwest elevation, as was common for barn-type second period meetinghouses of the Revolutionary War era (figures 15&16). Though there is very little information available from contemporary descriptions, we do know that the Meetinghouse had porches on either gable end, providing secondary entrances to the building, and enclosing stairways that gave access to the gallery seating at what is now the second-floor level of the building. Second-period meetinghouse were often built to resemble large barns or houses in overall shape. Like the contemporary Georgian and Federal houses, these meetinghouses were usually side-gabled, and usually had five or seven ranked windows along the façade. Paneled doors were located at the center of the façade, beneath a decorative crown supported by pilasters. Typically, windows were double-hung with 9 or 12 panes per sash (in this case likely twenty-over-twenty with approximately 7x9" panes of glass) and were set in rigid symmetry. Second-floor windows were just below the cornice, which was often decorated with dentil moldings.

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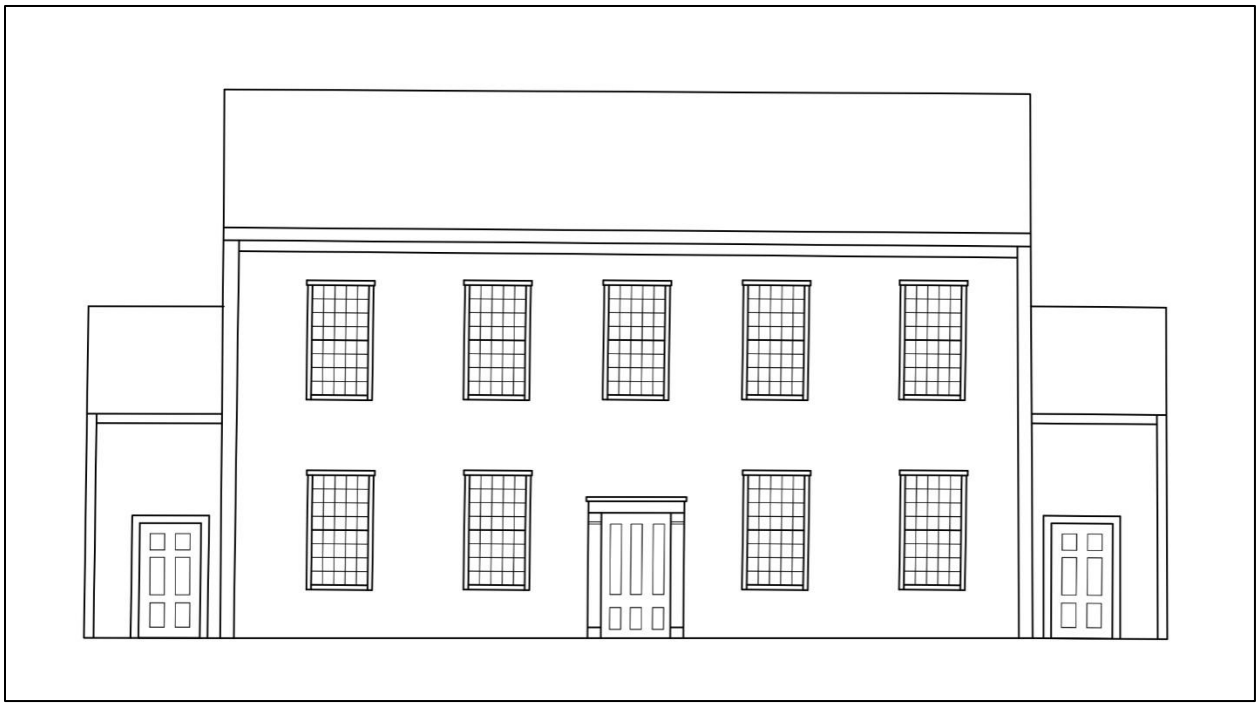

Figure 15: Conjectural Drawing of South Elevation of Windham Meetinghouse, ca. 1800

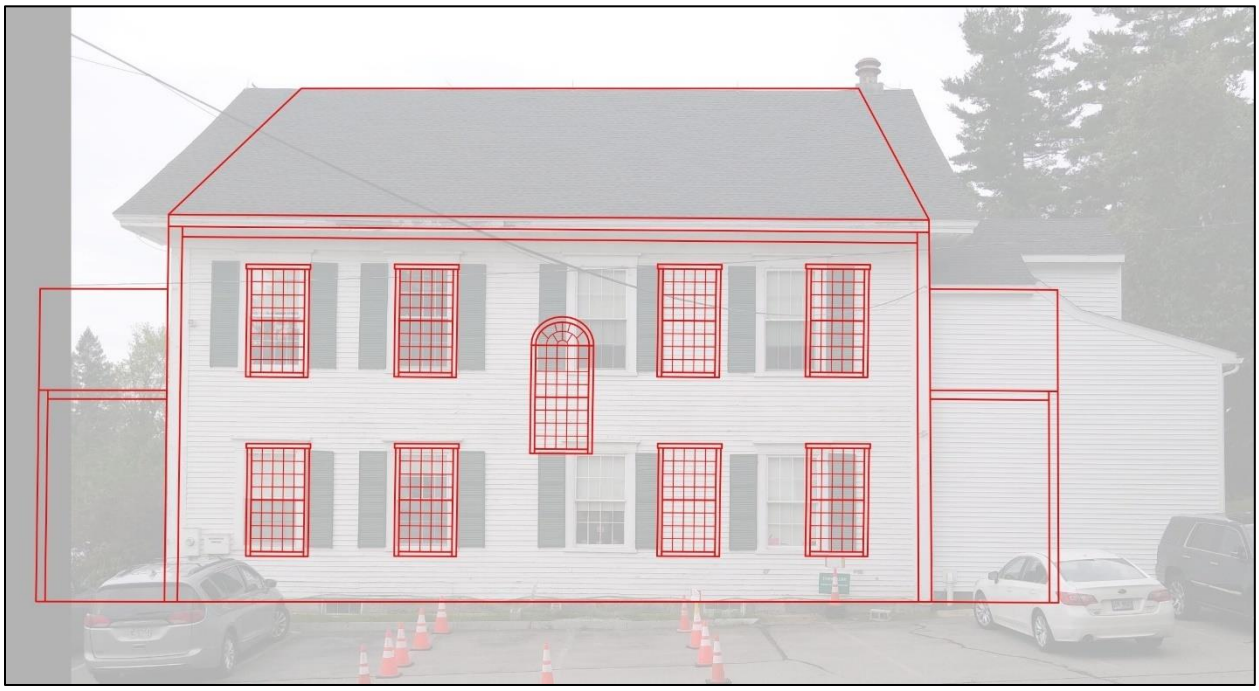

Figure 16: Conjectural Drawing of North Elevation of Windham Meetinghouse, ca. 1800, superimposed on modern Town Hall

Many of the second-period meetinghouses are known to have had a twin-porch layout, with exterior porches at either gable end, sheltering stairs to the gallery level. The twin-porch layout was particularly common along the Contoocook River Valley between 1772 and 1804. "So densely concentrated was the style that

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at the beginning of the nineteenth century it was possible to ride north from Brookline [NH] to Bridgewater and pass through seventeen contiguous towns and see sixteen twin-porch meetinghouses."[115]The 1800 Freemont Meetinghouse is the only surviving twin-porch meetinghouse in New Hampshire and offers an example of what the Windham Meetinghouse may have once looked like (figure 17).

Figure 17: When constructed, the Windham Town Hall may have been similar in appearance to the Fremont Meetinghouse, the only surviving twin-porch meetinghouse in New Hampshire.

Character-Defining Features of the Building's Exterior		
Primary Features	***Secondary Features***	***Non-Historic Features***
• *Height & massing of the main block* • *Roof pitch and ca. 1868 eave detail* • *Irregular fenestration (door and window locations), ca. 1868* • *Federal-era sash (northwest elevation), ca. 1800* • *Paired front doors, ca. 1868*	• *Simplified building trim* • *Wooden clapboard siding* • *Window blinds*	• *Rear (northwest elevation) additions, ca. 1990* • *Modern replacement sash (1997)*

[115] Peter Benes, "Twin-Porch versus Single-Porch Stairwells: Two Examples of Cluster Diffusion in Rural Meetinghouse Architecture," (*Old Time New England*, Vol. 69, 1979), 56.

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INTERIOR DESCRIPTION OF THE TOWN HALL

The interior of the Windham Town Hall has changed significantly since the building was raised in 1798. The interior of the first floor was significantly changed in ca. 1990, when the first-floor hall was divided to create modern office space for the Town. The second-floor interior is more closely associated with the 1868 renovation of the building, which converted the second-floor gallery level into an upper hall with ante-chambers at the southeast end.

Crawlspace

There is an extremely small and cramped crawl-space beneath the Town Hall, which is accessible through a floor hatch in the office adjacent to the first-floor kitchenette. The area directly beneath the hatch has been slightly excavated, to allow about 2.5 to 3 feet of head-room (figure 18). The earthen floor is very uneven, and curves up away from this area, so that there is only about 2 feet of space between the sandy soil and first-floor frame. Intermediate cinderblock and/or brick piers interrupt the area (there is also at least one stone pier), providing additional support to the first-floor. Many of the piers were added in the 1950s as part of a foundation-repair project. There are three-light basement windows at each corner of the building that were also added at this time (figure 6). Sections of the dirt floor are covered with thick plastic. Insulation batts were added to the underside of the first-floor framing and affixed with narrow battens. Low-hanging metal duct-work from an historic heating system (no longer in operation) prevented the full exploration of this area during the site visit.

Figure 18: Crawl-space beneath Town Hall

Main Floor/First-Floor/Ground Floor

When the Town Hall was renovated in 1868, the first floor contained an open stair hall/vestibule, a small ante-chamber (serving as the selectmen's office), and a large open hall. The hall was heavily renovated in 1990, when it was divided into a corridor with offices off of either side. Most of the floor is carpeted, and the walls are modern gypsum board (the floor was stripped of historic plaster at the time of the 1990 renovation).

Upon walking through the main entrance, one steps into the stair hall/vestibule (figure 19). The walls and ceiling of this room are gypsum board. The floor is carpeted. A narrow baseboard encircles the room, and there is a narrow chair rail along the walls. Most of these interior surfaces likely date to the 1990s, when the building was renovated. Of note, the open staircase retains the ca. 1868 newel post and associated hand rail. There is a solid wainscot beneath the interior hand rail, which is composed of vertical boards.

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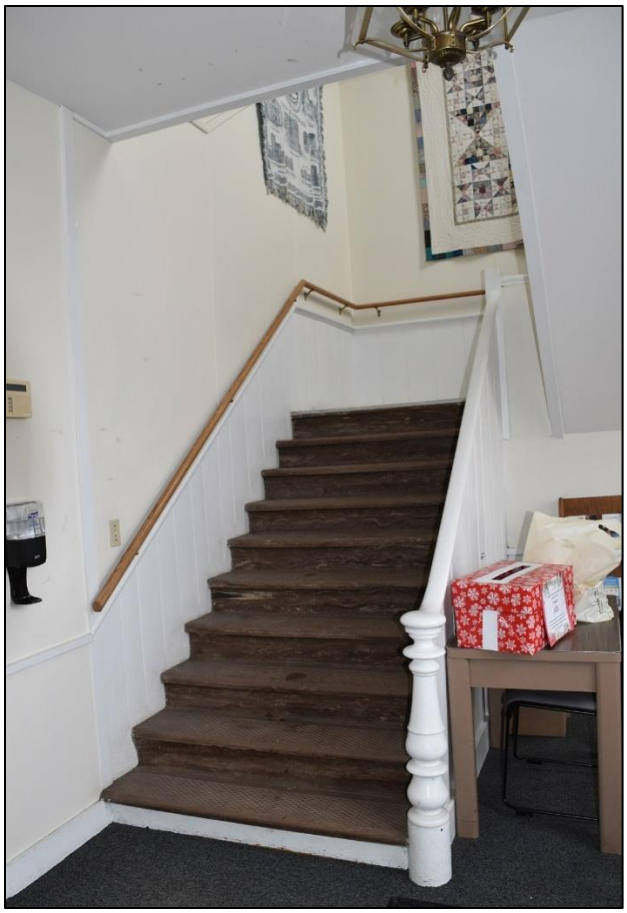

Figure 19: Entry vestibule/stair hall showing newel post

Figure 20: Historic column inside of office

There is a small kitchenette located at the south corner of the building. This room was added in 1868 as an office for the Town's selectmen. Refinished in 1990, this room has a modern tile floor and gypsum walls and ceiling. The room has modern particle-board cabinets.

Similarly, the former first floor hall retains very few historic features. Prior to 1990, the central hallway and offices were all part of an open hall, which was largely gutted as part of the renovation. The hall and associated offices all have carpeted floors and drop-ceilings. The walls throughout are modern gypsum board. The office doors are all modern six-panel doors, and there is a solid fire-door at each end of the hallway, separating this space from the historic and modern stairs.

Although most of the visible features of the first floor are modern, and were added as part of the late 20th century renovation, there are a few historic details within the first floor. In order to accommodate the drop ceilings, window-wells have been added at the top of each of the windows. When the space was divided, the turned columns that dotted the first-floor hall were left in place. Though some of these are encapsulated in modern dividing walls, a few are visible within larger office spaces (figure 20).

Another interesting historic feature is the large town vault, located at the southwest corner of the building. Though the date of this room is unknown, it was likely added as part of the first major renovation of the Town Hall in 1868. The room is made of concrete, with paired two-panel metal doors set on cast iron loose-joint hinges.

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Figure 21:Detail of stair railing at second-floor level

Figure 22:Detail of landing newels

Second Floor

The second floor of the Windham Town Hall is reached either via the open stair hall at the front (southeast) end of the building or the modern enclosed stair in the 1990 addition (located at the northwest). The second floor consists of the ca. 1868 stair hall, a small room that once housed the Library (later ante-room to the Grange and now kitchenette), and the upper hall. Generally, the second floor is a mixture of ca. 1868 and mid-twentieth-century finishes.

As stated earlier, the stair hall retains the ca. 1868 interior hand rail. The landing newels are very simple square posts and are not turned like the starting newel which was located in a very prominent spot inside the primary entrance (figures 21 & 22).

There former library room is located directly above the former selectmen's office and outside of the upper hall. This room is now fitted up as a kitchenette and previously served as an ante-room for the Grange. The walls and ceiling of the kitchenette are plaster, and there is a vertical board wainscot. The interior trim is wide and flat, and is likely contemporary to the construction of the room as part of the 1868 renovation to the building. Four-panel mid-19th century doors lead from the stair landing to this room and from this room to the adjacent upper hall. Both door jambs bear evidence of historic lower "Dutch" doors, possibly as some sort of tie-over when this room was used as the town library. There is a circular peephole cut in the center stile of the door between the former library and hall that was likely added after the Grange began to use the space in 1892 (figure 23).

The former library and Grange ante-chamber appears to have been refinished in the mid to late 20th century, when the room was converted to a kitchenette. There is a kitchen counter along the exterior walls of the room, with cabinets underneath and a row of cabinets above. The cabinets have flat panel doors, and colonial-revival style faux hand-forged H-hinges and handles (figure 24).

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Figure 23: Door between former library and hall

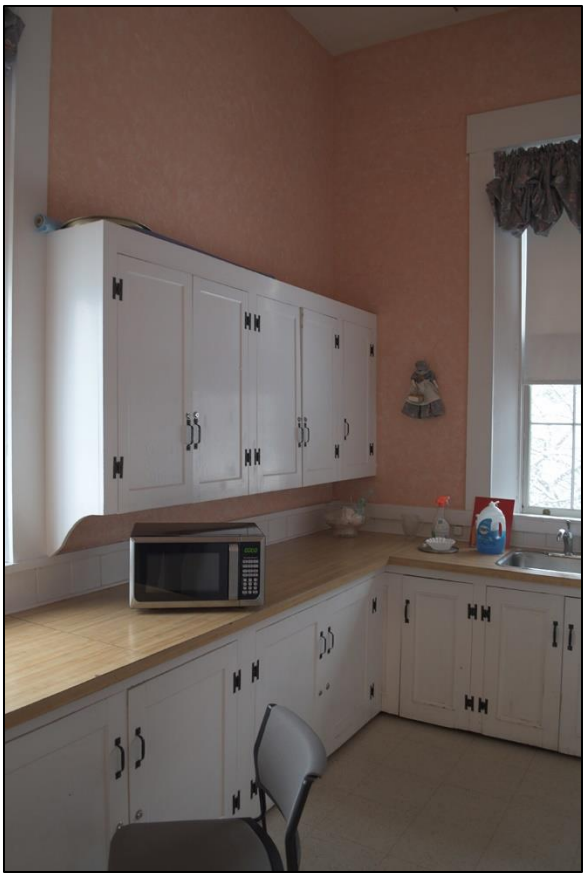

Figure 24: Colonial-Revival style kitchen cabinets

Figure 25: Upper Hall, facing north

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Figure 26: Upper Hall, facing south

The majority of the second-floor of the Town Hall is devoted to the large upper hall (figures 25 & 26). The walls and ceilings of this room were re-plastered in 1953-1954. There is vertical board wainscot throughout between a wide baseboard and narrow, square chair rail. The upper portion of the walls is wallpapered with a Colonial Revival-style floral pattern. A section of torn paper, adjacent to the southern chimney, reveals an underlying second layer of paper with similar pattern, likely dating to the 1950s (figure 27). Several Colonial-revival style chandeliers hang from the ceiling, possibly those installed as part of the 1953-1954 renovation of the space. A row of very modern LED directional lights are hung from the ceiling at the northwest end of the hall to provide additional light for speakers and performances. The upper hall floor is composed of narrow maple boards.

Figure 27: Tear in late 20th century wallpaper revealing ca. 1954 pattern

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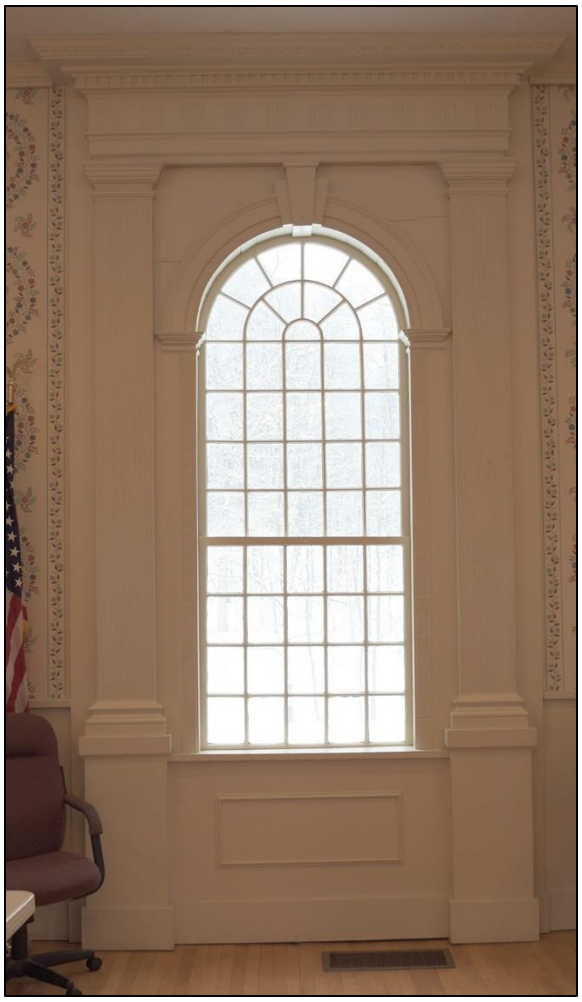

Figure 28: Surviving original Federal window

Figure 29: Storage closet and attic ladder

There is a single curve-topped window at the northwest (end) wall of the upper hall (figure 28). This window is one of the only readily visible eighteenth-century features of the building. The window was likely originally located at the center of the northeast side of the building, providing illumination to the dais. When the building was renovated in 1868, the window was retained and moved to its present position. The twenty-over-twenty sash is typical of the Federal style, and was originally installed in the building in ca. 1800. The window has an elaborate entablature, as well, which also dates to the Federal period, and was completed in ca. 1804.

A very small, narrow storage closet at the northeast corner of the second-floor grants access to the Windham Town Hall attic (figure 29). This innocuous closet is largely unchanged since it was created in 1868. As a closet, the room has not received the renovations of the larger public spaces and retains original unpainted vertical board wainscot below horse-hair plaster walls. As the plaster is somewhat damaged in this utilitarian space, one can see the underlying sawn lath held in place by very late cut nails. The use of sawn

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lath and cut nails is very typical of between ca. 1850 to ca. 1880, when cheaper wire nails began to rise in popularity across New Hampshire.[116]

A ladder straight up the interior wall of the closet leads to the building's attic. This ladder is made of modern dimensional lumber and was likely added in the late 20th century to allow for relatively easy attic access.

Figure 30: View of Windham Town Hall Attic, facing north

Attic

The 1798 Windham Town Hall frame is fully-exposed in the large open attic (figure 30). The hand-hewn frame was constructed utilizing the scribe rule. During this type of timber-frame construction, a master builder would have individually created all of the mortises, tenons, pins, etc. on the ground, incising matching numerals (sometimes called "marriage marks") on each side of a joint in order to assist him when reassembling the frame in an upright position (figure 31).[117]

[116] Garvin, 77. Circular-sawn cut lath, on the other hand, was universally popular from about the mid-1800s until after World War II (Garvin 67).

[117] This labor-intensive method of creating a building frame was slowly replaced by the 1830s and 1830s by the "square rule." The square rules allowed framing members to be cut *en mass* with prepared patterns used for each type of joint and everything cut to the same dimension to create a more interchangeable frame.

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Figure 31: Numerals inscribed in the scribe-rule frame at either side of a joint allowed the master-builder to reassemble the individually-carved members of frame he created on the ground when the building was raised.

The roof is supported by king-post trusses with two chords to provide extra stability to the frame and intermediate purlins supporting the rafter and purlin roof framing.[118] All of the members of the framing were hand-hewn, including not just the major faming elements such as the king posts and rafters, but also the smaller purlins. The roof sheathing, for the most part, displays the regular horizontal marks left by a water-powered reciprocating (up-and-down) saw blade (figure 32).

Figure 32: Detail of roof sheathing with hand-hewn rafter at left, roof purlins at top and bottom of frame, and water-power sawn sheathing boards at middle

[118] The roof framing of the 1785 Antrim Meetinghouse (reused in the present Antrim Grange) is very similar, suggesting a close connection between the builders of the two structures.

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The attic frame offers many clues as to the original layout of the building in 1798. From the attic level, one can clearly see the division of the building into five structural bays.A heavy timber at the south side of the center of the building connects across several tie beams(figure 33) and helped hold up the weight of the original open gallery seating below (which was removed in 1868 when the full second floor was installed).

A very rustic ladder leads from just behind the first king-post to what was once a hatch in the building's roof (figure 34). The historic hatch would have allowed access to the roof for repairs to the roof surface and adjacent chimney. The sides of the ladder are made from tree-trunks, and the steps are narrow boards. Over the years the hatch itself has been sheathed over, however, the ladder has remained in place.

Figure 33 (up): Another view of attic showing beam that once supported the south side of the meeting house's gallery

Figure 34 (left): Rustic historic ladder leading to former attic hatch

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The Windham Town Hall attic has no floor. In order to cross the space, one must balance on the frame of the building to avoid stepping on the delicate plaster of the second-floor ceiling. The voids between the framing members have been filled with insulation batts over a layer of cellulose insulation. This insulation has been pulled back around the ceiling cans for the rooms below.

When the original ca. 1828 brick chimneys were removed in the late 20th century, the chimney shafts were left empty. These "holes" are clearly visible in the attic, and there are several historic bricks left scattered on the floor. The two interior stove chimneys descended from either interior slope of the roof, down on the interior of the east wall of the meeting hall. The associated stoves would have heated the hall and created a semi-heated space within the adjacent vestibule.

As stated earlier, when constructed, the Windham Meetinghouse would have had a relatively shallow eave overhang. In 1868, this eave was extended in order to give the building a more fashionable appearance. At the sides of the building, one can easily see where the eave was extended beyond the top plate. This is particularly easy to see adjacent to the attic entrance.

Throughout the 20th century, additional modern lumber was added to the historic frame in an effort to provide additional strength (figure 35). The modern framing elements are all modern dimensional lumber set on modern metal hangers and laid next to the historic frame. The modern additions are done in such a way as to be clearly differentiated from the historic frame and reversible, thus complying with the *Secretary of the Interior's Standards.*

Figure 35: View of attic, facing east, showing modern framing that has been added to the historic frame

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Character-Defining Features of the Interior		
Primary Features	***Secondary Features***	***Non-Historic Features***
• *General layout of second floor including stair hall, ante-chambers, and large open hall* • *Newel post and attached handrail* • *Federal-era window trim surrounding arch-topped window (northwest elevation, 2nd floor)*	• *Vault* • *Columns* • *Historic plastered surfaces* • *Interior doors, second floor*	• *Divided offices and hallway within first-floor hall* • *Carpeting* • *Tile* • *Gypsum board* • *Interior doors, first floor* • *Additional dimensional lumber components of attic frame.*

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Part III: Existing Conditions

Exterior Conditions

Site

The site conditions around the Town Hall provide good drainage with the exception of the south side. This area should be re-graded to provide better drainage away from the building. Also, trees and bushes on the left in the picture below should be removed to increase drainage and airflow around the building. This will help decrease moisture near the clapboards and trim.

South elevation, facing north

The Windham Town Hall shares a well with the former fire station to the north. The well itself is located beneath a man-hole cover in the paved area between the buildings and meets the current demand of both buildings. The Town Hall shares a septic system with the adjacent former library (to the south), the tank of which is located to the southwest of the building and also serves the current building needs.

Parking

There is a parking area to the north of the building, between it and the former fire station and along the circular drive that connects the Town hall with the other two adjacent municipal buildings (former fire station and library). Parking appears to be ample around the building along with additional parking available near adjacent structures.

Part III: Existing Conditions

East elevation, facing west

ADA Access

ADA access to the first and second floors is available in the back of the Town Hall via the 1990 elevator and code-compliant stairway addition. A gently sloped paved path leads directly from the two existing ADA parking spaces to the at-grade entrance. Two large ADA-compliant restrooms are located just inside the entry, on the main route to the Town offices. The second floor of the building is accessible via a large elevator that is located at the center of the late twentieth-century rear stair. This rear stair also provides a fire-rated secondary-exit. The existing designated accessible parking spaces are reported to meet current demand, and several additional adjacent spots could be easily modified, if the need increases.

Rear elevation, showing ADA compliant entrance into newer addition with designated parking spaces (left) and elevator entrance (right) (Photos by Wendy Williams)

Part III: Existing Conditions

Foundation

The foundation below grade is made of rubble stones which are then topped with finished granite blocks and appears to be in reasonable condition.

North side, looking south (Photo by M. Williams)

Roof

The roof covering is of asphalt and appears to be in good conditions. However, there are concerns about the area of a sag in the roof along the north eave side as there is a large amount of paint loss and discoloration. This would tend to indicate that there was or could be a leak in this area especially during the winter with ice dams. If only one row of ice and water shield was applied during the roofing process (from the eaves up to three feet) then ice will sometimes accumulate above that one row and cause water damage.

North side looking south

Part III: Existing Conditions

Windows and Blinds

With the exception of the original but relocated arched window on the west gable end, the single pane window sashes were replaced in 1997 with thermo-paned wooden window sashes with snap on interior grills. The manufacturer's warrantee on these replacement windows expired many years ago and any repairs would only be temporary.

These 1997 windows are in fair condition with several having issues opening and closing appropriately.

East side 1997 replacement sash, looking west
(Photo by M. Williams)

The blinds are in reasonable condition, are hung outside of their original location and hung backwards on the building. Traditionally, when the blinds are closed they shed water away from the building. When open against the building, the louvers will shed water towards the building as in the photo below.

Appropriate hung blinds in the open position
House in Newfields, NH

Part III: Existing Conditions

Doors

The front historic wooden double door is in reasonable condition, but is not ADA compliant because of the steps up to the threshold, the narrow width of each door, and the door knob. Fortunately, the rear exterior door is ADA compliant and it is understood that the rear entrance gets the most use. This rear door is a modern metal exterior door with ADA-compliant grab-bar handle.

East double front door, looking west
(Photo by M. Williams)

Trim and Clapboards

The trim and clapboards are in overall good condition with a few exceptions.

The trim along the extended gable-end overhangs on the west end are sagging considerably and need to be repaired, strengthened and straightened.

Rake trim north side west gable end, facing south

Rake trim south side west gable end, facing north

Part III: Existing Conditions

The gable end returns on the north and south side are also in need of repair/replacement as well as installing new flashing.

East gable end returns looking west

The clapboards are in reasonable condition given their age, most likely from the renovations in 1868. There are some areas where clapboards have failed and need to be replaced with wooden clapboards (spruce or cedar) of similar size, shape and exposure to the weather. The amount of clapboards that need to be replaced is a minimal amount and the entire replacement of all of the clapboards is not warranted. While the paint on the clapboards is in fair condition, the actual clapboards themselves are in generally good condition.

Paint

The paint is in fair condition and should be repainted as soon as possible. It would appear that there may be more than one problem causing the paint to peel. The first problem could be caused by incompatibility of the different paint surfaces and a second problem could be related to moisture getting in behind the clapboards and pushing its way out through the paint.

North side peeling paint on clapboards

Identifying the location of moisture can be difficult. The roof area and eave trim as well as potential moisture issues coming up from the crawl space into the exterior walls are definite possibilities.

Part III: Existing Conditions

Interior

Crawl space

Access to the crawl space is limited at best given the hatch opening. The crawl space itself is packed full of old insulation, discontinued duct work and various critter nests.

An effort at some point was made to insulate the floor with fiberglass batts. These batts are continuing to fall down and provide plenty of nesting places for rodents as well as hold and eventually release moisture from the ground into the building above.

The rest of the insulation still in place and the insulation scattered on the ground should be removed. Rather than trying to insulate the floor, and spray foam is not recommended, an effort should be made to "tighten up" any cracks or holes in the foundation. This will keep the floor much warmer. A 10-mil vapor barrier should also be installed.

Once the debris is all removed, then a proper assessment of the internal support piers and the joists can be accomplished.

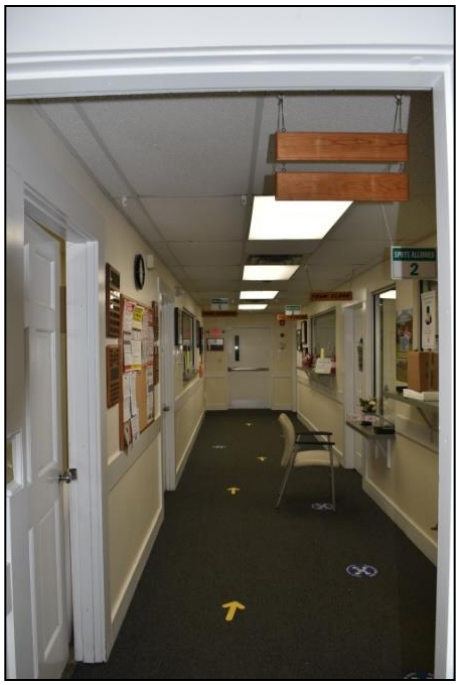
Limited crawl space approximately halfway just inside south wall
(Photo by M. Williams)

Part III: Existing Conditions

First and Second Floors

The first and second floors appear to be in reasonable condition given the age of the structure and upgrades to the areas of the first floor. A general plan of the first floor is located on the following page.

To the right of the first floor front entrance, there is the stairway that goes to the second floor meeting space. While an additional railing has been added to make the stairs safer, the original stairway railing does not meet current code requirements.

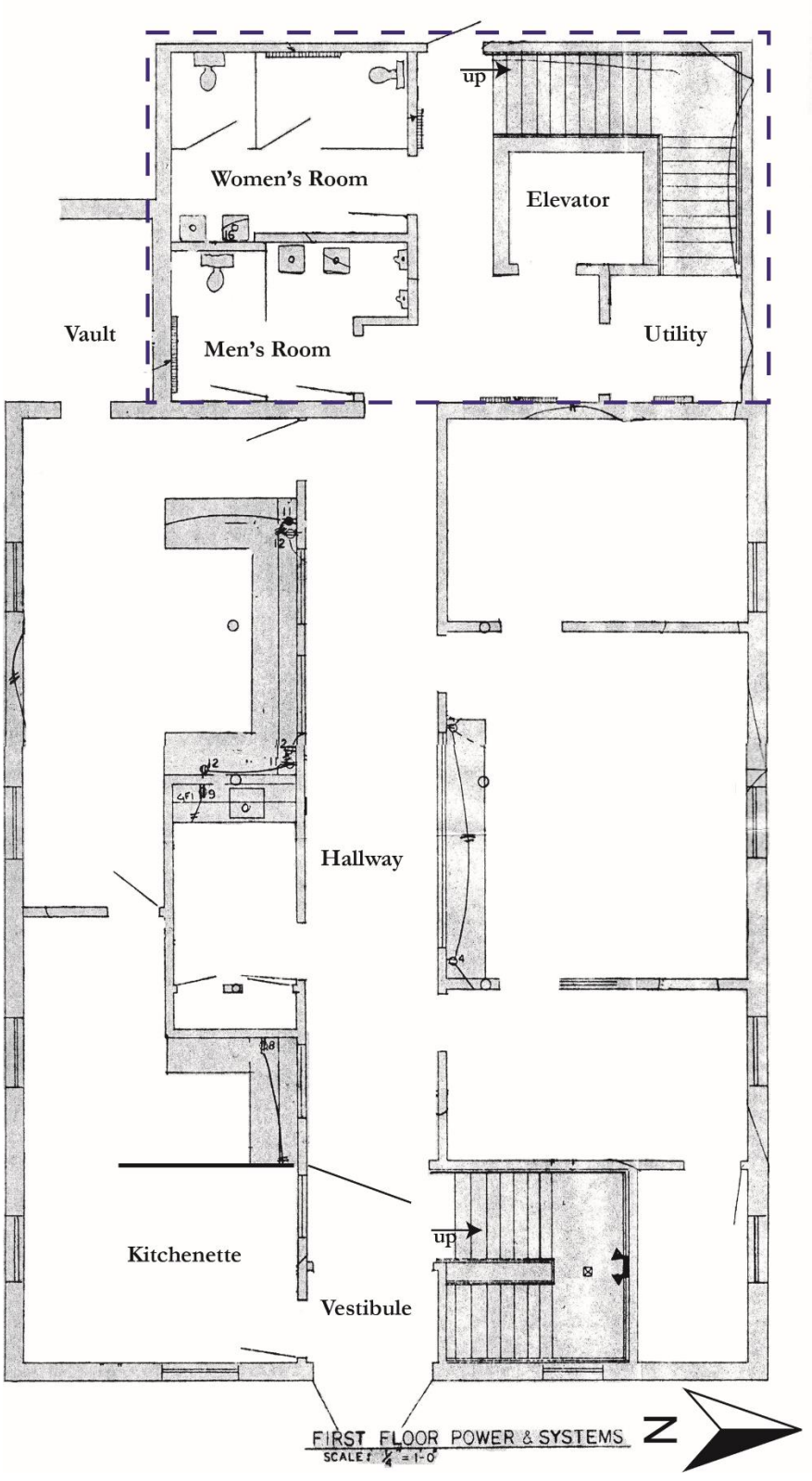


First floor stairway to second floor, looking north First floor hallway, looking east
(Photos by M. Williams)

The original meeting hall off of either side of the first floor hallway is divided into various offices and meeting spaces. Not all of these spaces were available for inspection at the time of the site-visit.

Typical office space, looking easterly
(Photo by M. Williams)

Part III: Existing Conditions



Approximate plan (note that not all of the interior office walls are as-built) of first floor taken from ca. 1990 electrical plans. The modern-era addition is shown at the top (west) of the plan.

Part III: Existing Conditions

Second floor landing and solid half wall with integrated handrail, looking easterly
(Photo by M. Williams)

The second floor landing leads to a small ante-room (now a kitchen) before emptying into the large room used for meeting space.

Meeting room on second floor with Palladian window at gable end, looking west
(Photo by M. Williams)

This Palladian window is most likely original to the 1798 structure, was original located on the north side and was relocated to the west gable end in the 1868 renovations.

Part III: Existing Conditions

West interior gable end, original 1798 Palladian window with moldings most likely from the same time period moved from north wall in 1868 (Photo by M. Williams)

Part III: Existing Conditions

Mechanical Systems

It appeared on my two visits that the mechanical systems were in working order. The current electrical system is 200-amp or greater, and the building wiring was updated in ca. 1990 as part of the building renovation. No deficiencies have been reported by local officials.

Electrical and Communication services located on the north side

Attic

The attic of Town Hall is not usable and was insulated several years ago. Over the years, insulation has been moved around to gain access to wiring and rodents have also nested in the fiberglass insulation.

Old, disturbed attic insulation, looking east

Part III: Existing Conditions

Old, disturbed attic insulation, looking west
(Photo by M. Williams)

The roof framing has been repaired and strengthened over the years. Original purlins have been added on to or replaced in the roof structure to help with the natural occurring deflection in the purlins between the rafters. In the photograph below, additional 2 x 8 purlins have been added to the existing purlins as well have being added between purlins. These new purlins are held in place and connected to the rafters by metal joist hangers.

South easterly roof structure, looking south westerly
(Photo by M. Williams)

Part III: Existing Conditions

General Post and Beam Framing

In the areas that the post and beam structure could be examined (mostly in the attic), it appears the framing is in good condition.

Part IV: Recommendations with Costs

By Steve Bedard

<u>Recommendations with Costs</u> (all costs are in December 2021 pricing)

Site

Trees/bushes should be removed on the south side and the grade away from the building improved so that run off from the roof above will not migrate towards the foundation. **Cost $ 750**

Foundation

The foundation of top granite as well as any areas above grade should be re-pointed with the appropriate mortar to help stop air infiltration into the crawl space. The area inside the crawl space should also be re-pointed as needed once the crawl space is cleaned out as mentioned further in these recommendations with costs. **Cost $ 3,500**

Roof

While the existing roof is in serviceable condition, it would be recommended that a new asphalt roof should be planned in 14 to 18 years. This would include the removal and disposal of the existing asphalt shingles and installing 2 rows of "high temperature" ice and water shield and then installing new 30-year architectural asphalt shingles.

It should also be noted that work will need to be accomplished concerning the overhangs on the gable ends of the building and the appropriate time to address this work is in combination with the roof replacement. Any work, related to the roof replacement, will be addressed separately in this report. **Cost $ 35,000**

Windows

The existing 1997 replacement windows are at or beyond their manufacturer's warrantee and should be replacement with a higher quality window sash system within the next 2 to 3 years because they are beginning to fail. **Cost $ 25,000**

Trim

The rake trim should be structurally repaired, straightened and strengthened in conjunction with the roof replacement and structural reinforcement. This cost would include back and face priming all wood before installation. **Cost $ 15,000**

Clapboards

Damaged and/or rotted clapboards should be replaced as needed. Peeling paint does not necessarily mean that the clapboards need to be replaced. The intent would be to carefully remove damaged and/or rotted clapboards and "tooth them back in"" with new wooden clapboards with the same thickness, size and exposure to the weather. All new clapboards back/face primed before installation. **Cost $ 4,000**

Part IV: Recommendations with Costs

By Steve Bedard

Paint

The building should be scrapped appropriately, primed and then painted with quality paint such as Sherwin-Williams Duration Satin Paint. This cost also includes painting the existing window blinds. **Cost $ 40,000**

Dehumidification

A power dehumidifier, located in the crawl space and plumbed directly to a drain would help with the moisture situation. **Cost $ 900**

Crawl Space

Remove all insulation/debris/ discontinued duck work, rake out and install a 10-mil vapor barrier.

Cost $ 15,500

Attic

All insulation and debris should be removed, the bays cleaned out, new wiring installed as needed and the attic re-insulated with rock wool batts. Rodents typically do not like rock wool. This cost does not include any electrical work. **Cost $ 13,000**

Stairway and Code Compliance

The historic 1868 stairway should have an additional hand rail at the appropriate height should be fabricated and added above the existing with only a few connections to the existing handrail. **Cost $ 3,500 to 5,000**

Interior painting

Continue to carry money in the town operating budget for typical maintenance costs including painting and other routine maintenance.

Total Project Cost

The total cost of this project if undertaken all at once would be as follows:

All items as mentioned above is approximately	$ 157,000
contingency @ 10%	15,700
Management costs/General conditions @ 10%	15,700
TOTAL PROJECTS COST	**$ 188,400**

Part IV: Recommendations with Costs

By Steve Bedard

Phasing-in of Work

With the exception of the replacement of the roof and the rake/eave return work as noted, it would be recommended that the rest of the work be accomplished as soon as funds are available.

As noted earlier, the roof replacement and rake/eave trim work should be planned in 14 to 18 years as needed.

SUMMARY OF COSTS:	
SHORT-RANGE RECOMMENDATIONS (AS SOON AS POSSIBLE)	***ANTICIPATED COST***
1. Site	*$750*
2. Cleaning Out Crawlspace	*$15,500*
3. Foundation	*$3,500*
4. Dehumidification of Basement	*$900*
5. Clapboards	*$4,000*
6. Exterior Painting	*$40,000*
7. Attic Insulation	*$13,000*
8. Stairway/Code Compliance	*$3,500-5,000*
Total Short-Range Recommendation Range	***$81,150-82,650***
MID-RANGE RECOMMENDATIONS (1-5 YEARS)	***ANTICIPATED COST***
9. Windows	*$25,000*
Total Mid-Range Recommendations	***$25,000***
LONG-RANGE RECOMMENDATIONS (10+ YEARS)	***ANTICIPATED COST***
10. Roof	*$35,000*
11. Trim	*$15,000*
12. Interior painting	*TBD*
Total Long-Range Recommendations	***$50,000***

**All preliminary estimates are provided for planning purposes only and are based on December 2021 prices. A new quote or RFP will be required for each phase of this project as prices may vary over time*

Part IV: Recommendations with Costs

By Steve Bedard

Recommendations that meet the Secretary of the Interior's Standards

1. Historical use of the building will continue while providing the community with access.
2. The Historic character will be retained and preserved by not removing any distinctive materials or altering any features, spaces and spatial relationships.
3. No changes will be made that create a false sense of historical development. Only repairs to the existing features are proposed and no conjectural features will be added.
4. Changes to the building that have acquired their own historical significance such as the 1868 stairway will not be removed.
5. All distinctive materials, features, finishes, construction techniques or examples of craftsmanship will be maintained. The removal of distinctive items is not contemplated.
6. Deteriorated historic materials will be repaired rather than replaced. Whenever deterioration requires replacement such as the repairs to the clapboards, the minimal amount of replacement will be made by "toothing-out" the clapboards and have them match the old clapboards in size, spacing and color. If needed, replacement of missing features shall always be accomplished by documentation and physical evidence.
7. No chemical or physical treatments are contemplated but if the need arises, the gentlest means possible will be utilized.
8. No archeological resources will be disturbed.
9. A new addition, if contemplated in the distant future, would be constructed so that it is compatible, discernable and subservient.
10. A new addition, if constructed in the distant future, could be removed without disturbing the essential form and integrity of the original structure.

Part V: Supplemental Information

Secretary of the Interior's Standards

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

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.

Part V: Supplemental Information

Preservation Briefs

The following preservation briefs form the National Park Service should be reviewed before work is proposed and/or undertaken:

For re-pointing mortar joints
Preservation Brief 2: Repointing Mortar Joints in Historic Foundations
https://www.nps.gov/tps/how-to-preserve/briefs/2-repoint-mortar-joints.htm

For overall energy efficiency
Preservation Brief 3: Improving Energy Efficiency in Historic Buildings
https://www.nps.gov/tps/how-to-preserve/briefs/3-improve-energy-efficiency.htm

For wooden windows
Preservation Brief 9: The Repair of Historic Wooden Windows
https://www.nps.gov/tps/how-to-preserve/briefs/9-wooden-windows.htm

For paint problems
Preservation Brief 10: Exterior Paint Problem in Historic Woodwork
https://www.nps.gov/tps/how-to-preserve/briefs/10-paint-problems.htm

For flat plaster
Preservation Brief 21: Repairing Historic Flat Plaster – Walls and Ceilings
https://www.nps.gov/tps/how-to-preserve/briefs/21-flat-plaster.htm

For overall moisture concerns
Preservation Brief 39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings
https://www.nps.gov/tps/how-to-preserve/briefs/39-control-unwanted-moisture.htm

Acknowledgements

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All photographs unless otherwise noted were taken by Bedard Preservation & Restoration LLC