



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

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JAMES E. NICHOLS MEMORIAL LIBRARY
35 PLYMOUTH STREET, CENTER HARBOR, NH
EXISTING CONDITIONS REPORT & ASSESSMENT
27 FEBRUARY, 2019

member of the American Institute of Architects
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alba architects · a limited liability partnership · stuart j anderson & philip m bennett

PROLOGUE

The Nichols Memorial Library was given to the Town of Centre Harbor by James E. Nichols, a prominent New York merchant and former resident of Centre Harbor village, in memory of his parents. The cornerstone was laid on September 29, 1909. The library was built by T.J. Quay Construction Co. of Laconia, N.H., to the Classical design of Boston architect Charles Brigham. The building was formally dedicated and opened to the public on June 18, 1910.

Excerpt from the National Register of Historic Places Inventory.

The James E. Nichols Memorial Library remains to this day a functioning library for the people of Center Harbor. Situated prominently at the intersection of Plymouth Street and Main Street the library has been maintained well and retains much of it's original fabric and integrity.

The Library Trustees have engaged with various studies over the years and this report looks to consolidate that information as well as offer a further understanding of the existing conditions and begin to provide a roadmap for the next 100 years.

The Center Harbor Library has been recognized on the National Register of Historic Places as part of the Center Harbor Village Historic District (#83001126) since September 8, 1983. The Centre Harbor Village Historic District is significant for its concentration of architecturally interesting buildings of the 19th and early 20th centuries.

PREFACE

In late 2018, the Town of Center Harbor, and Library Board of Trustees, retained the services of Alba Architects and their team to conduct existing conditions review, analysis, and assessment of the James E. Nichols Memorial Library located at 35 Plymouth Street, Center Harbor, New Hampshire.

The team of professionals and their respective discipline include:

- Architecture & Team Leader:
ALBA ARCHITECTS LLP, North Woodstock, NH
- Structural Engineering:
HEB ENGINEERS, INC., North Conway, NH
- Masonry Consulting:
GROUNDROOT PRESERVATION COMPANY, Cape Neddick, ME

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1.0 HISTORY & DEVELOPMENT OF PROPERTY

The following is an excerpt from the National Register of Historic Places Inventory – Nomination Form, prepared by David L. Ruell on February 27, 1983. The complete report can be found in appendix IV.

The Centre Harbor Village Historic District is, as the name implies, the historic core of the village of Centre Harbor, located at the head of Lake Winnepesaukee's Centre Harbor Bay. The District is laid out along three streets which meet in a wide intersection, marked by a public fountain. Old Meredith Road, which leads southwest from the intersection, formerly connected the villages of Centre Harbor and Meredith. Plymouth Street, to the northwest, is still an important highway (N.H. Route 25B) leading to Holderness and Plymouth, as is Main Street to the northeast (also part of Route 25B) which leads to Route 25, and thence to Moultonboro and the towns east of Centre Harbor. The northeastern edge of the District is Bean Road, a road historically important to the development of the District, as it links the village with Center Sandwich to the north.

Besides the early 20th century fountain, the Historic District includes nine buildings. Two buildings face Main Street, while the other seven face Plymouth Street, six on the north side of the street and the Nichols Memorial Library on the south. The library is the only 20th century building and the only masonry building in the District. All of the other buildings are 19th century wooden residential and commercial structures. (One of these, however, Kahle House, was substantially enlarged and completely remodeled in the early 20th century.) The buildings on the north side of Plymouth Street stand close to the sidewalk; and five of the six are set closely together, separated only by driveways and alleys. The other buildings in the District have more spacious lots and are set back from the road. Currently, four of the buildings are vacant; three are single family homes; one is used for both offices and apartments, and one serves as the local public library.

SITE PLAN / SATELLITE IMAGE



ARCHITECTURAL DESCRIPTION, FUNCTION & BUILDING FABRIC

The following is an excerpt from the National Register of Historic Places Inventory – Nomination Form, prepared by David L. Ruell on February 27, 1983. The complete report can be found in appendix IV.

The Nichols Memorial Library was given to the Town of Centre Harbor by James E. Nichols, a prominent New York merchant and former resident of Centre Harbor village, in memory of his parents. The cornerstone was laid on September 29, 1909. The library was built by T.J. Quay Construction Co. of Laconia, N.H., to the Classical design of Boston architect Charles Brigham. The building was formally dedicated and opened to the public on June 18, 1910. The one-story library has a rectangular hip roofed main block with two projections centered on its shorter axis, a shallow pedimented entry facing Plymouth Street, covered by a subsidiary gable roof, and a semicircular projection to the rear, covered by another subsidiary roof with a half conical termination. The high cut granite block foundation is topped by a moulded limestone sill course and broken only by short segmental arched and rectangular basement windows. The walls are faced with thin, sand colored bricks, laid in a running bond on the main block, but in flemish bond on the rear semicircular projection. At the corners of the main block and flanking the rear projection, are found limestone quoins, which rise a little above the eaves. The main block's stone cornice features mouldings and blocks. The roofs are covered with slate, and their copper ridge flashings are ornamented by heavy mouldings. Wide chimnies of the same sand colored brick break the northwesterly and southeasterly slopes of the hip roof. The main feature of the Plymouth Street facade is the pedimented entry. Granite steps lead up to double-leaf paneled doors with a stone architrave surround, a bracketed entablature, and an ornate transom window. Flanking the doors are two narrow windows with stone sills and flat brick heads. The doors and windows are set in a shallow recess between banded stone piers which support a full Classical stone entablature and pediment with a brick tympanum. (The library's name is spelled out in bronze letters on the entablature.) Between the piers and flanking the steps are two stone Tuscan columns, with corresponding pilasters on the side of the piers. On the faces of the piers are found elaborate electric lamps with torch-shaped supports and glass globes. On each side of the projecting entry are three-part windows with one over one sash and wider central window. The windows are framed in stone sloping sills, Corinthian pilasters at the sides, engaged Corinthian colonettes between the windows, and a full entablature with projections over the pilasters and colonettes. The side facades (southeast and northwest) each have a similar three-part window towards the front of the building, with one or two smaller and plainer windows with stone sills and flat brick heads towards the rear. The semicircular projection in the center of the rear facade has seven narrow windows, all with stone sills and flat brick heads. The stone cornice of the main block is continued around the projection, but here it is topped by another band of stone and a moulded metal cornice. The three windows of the rear facade all have stone sills and flat brick heads as does the rear entry, a paneled door with a built-in window and a large transom window, just east of the projection. The rear door's granite steps span the stairway down to the basement door. The Nichols Memorial Library is a fine building in the Classical style of the early 20th century. And, architecturally, it is easily the most important building in the District.

The Library sits on a flat broad lawn, marked off from the sidewalk by a granite curb. On the lawn are a few ornamental trees and shrubs, the library sign, and the town's war memorial a large boulder with two

elaborate bronze plaques honoring Centre Harbor's soldiers and sailors of the Civil War, the Spanish-American War, and the two World Wars.

OWNERSHIP & USE HISTORY

The James E. Nichols Memorial Library, has since construction in 1909 and gifted to the Town in 1910, remained under the ownership of the Town of Center Harbor. For its complete existence the building has functioned as a library.

CONSTRUCTION & STUDY HISTORY

The Library has undergone routine maintenance throughout its existence in addition to various studies that have been undertaken to explore various possibilities. A summary of the study history is noted below and further reference material for these can be found in Appendix VI.

Study Summary

year	Study
1992	Accessibility and Conceptual Ramp.
1993	Inspection report by NH DHR.
1993	Assessment of Floor Structure.
1999	Feasibility Study for Renovations and Possible Additions.
2001	Renovation of Basement.
2007	Notice that the Basement is to have No Public Use.

SPATIAL ANALYSIS:

The Center Harbor Library has an exterior gross footprint of approximately 2,100 square feet. This is comprised of the main body of the library at approximately 48'-6" wide by 35'-6" long, plus the small covered entry of approximately 18'-0" wide by 4'-6" deep, and the radiused wall to the west elevation approximately 18' 0" wide by 3' 6" long (with 9' 6" radius wall).

Basement space is contained within the footprint, minus the small covered entry. The main level is contained within the same footprint with slightly more area at the entry vestibule.

To the interior, approximate net floor areas of the principle spaces are as follows:

MAIN LEVEL		BASEMENT	
<i>description</i>	<i>approx. sq.ft.</i>	<i>description</i>	<i>approx. sq.ft.</i>
Lobby	210	Electrical	160
Reading (N)	240	Raised Storage	190
Reading (S)	230	Storage	690
Book Stack	485	Gen Purpose	435
Office	100	Stairwell	130
Meeting	170	Chimneys/safe	50
WC & Safe	30		

2.0 **PRESERVATION OBJECTIVES**

The preservation objectives for the Memorial Library are to ensure its continued existence and accessibility for future generations. This would be achieved by:

- Initial repair of deferred maintenance / repair to roof drainage and exterior wall moisture issues.
- Long term solution to rainwater run-off and anticipated ground water issues to address moisture levels in foundation walls and deterioration of both interior finishes and exterior building fabric
- Development of a long-term strategy to fund and implement a proposed building maintenance schedule.

The Center Harbor Library has been recognized on the National Register of Historic Places as part of the Center Harbor Village Historic District (#83001126) since September 8, 1983 with significance for its concentration of architecturally interesting buildings of the 19th and early 20th centuries.

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

ANTICIPATED USE

The Center Harbor Library is, and will continue to be, a working town library. The purpose of the conditions assessment plan is to facilitate a long-term maintenance and repair schedule to ensure the continued use and condition of the building for generations to come, independent of what use the building may have in the future.

OWNERSHIP / MANAGEMENT GOALS

The management goals are primarily to repair any deferred maintenance issues and address any deterioration of the building fabric visible at this time, as well as addressing the issues that have caused the deterioration.

A further goal of the owner is to create a detailed maintenance schedule to facilitate the long-term implementation of necessary repairs and replacement of critical building components, insuring prevention of further unnecessary deterioration of the facility; and creating a budget and finance mechanism to insure execution of that maintenance schedule.

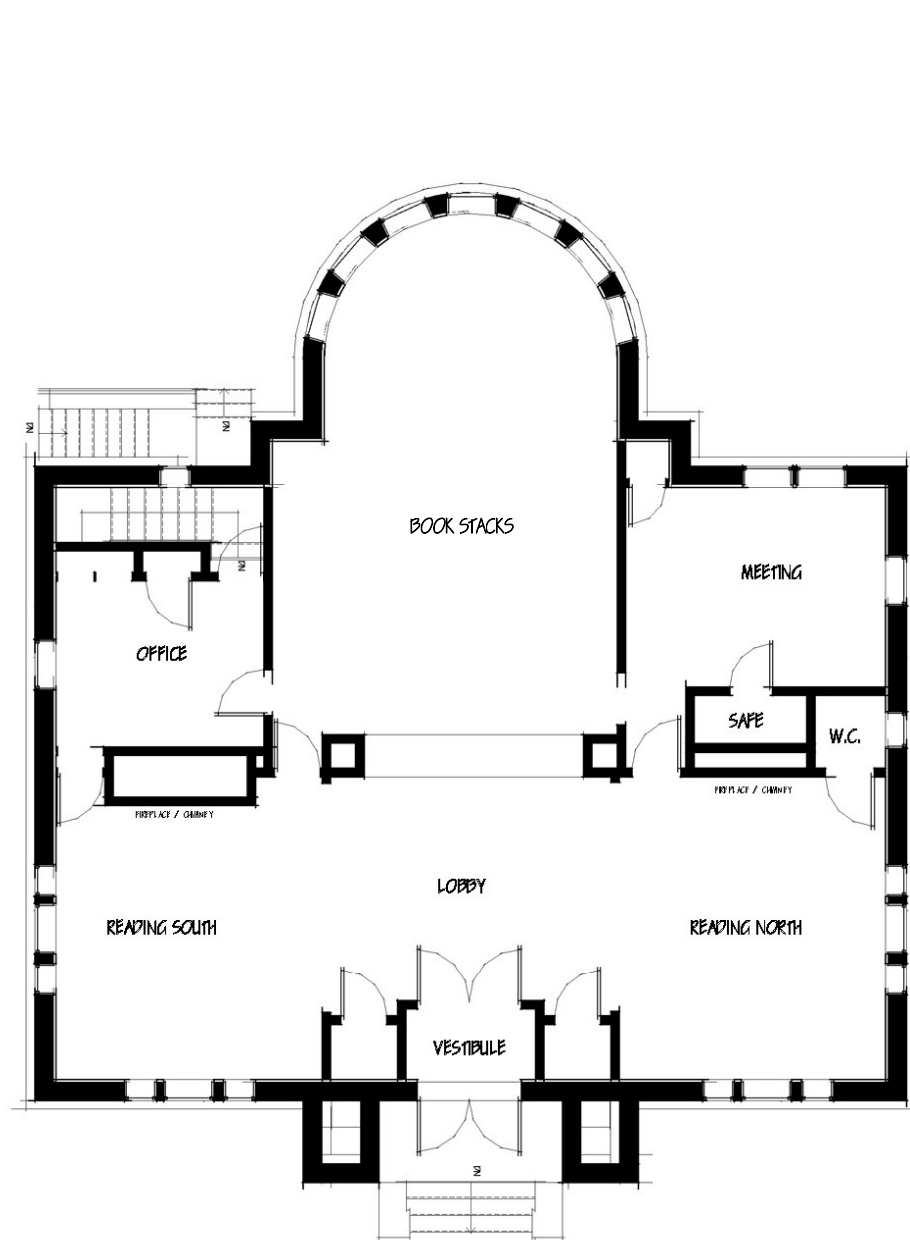
CHARACTER DEFINING / SIGNIFICANT FEATURES

Character defining features which should be preserved include:

- Prominent situation at road intersection.
- Classical style of the early 20th century.
- Single-story above grade with rectangular hip slate roofed main block.
- Shallow pedimented entry facing Plymouth Street, covered by a subsidiary gable roof.
- Entry steps with flanking stone Tuscan columns.
- Double-leaf paneled entry doors with a stone architrave surround, a bracketed entablature, and an ornate transom window.
- Semicircular projection to the rear, with subsidiary roof and half conical termination.
- Three-part windows with one over one sash and wider central window.
- Windows framed in stone sloping sills, Corinthian pilasters at the sides, engaged Corinthian colonettes between the windows, and a full entablature with projections over the pilasters and colonettes.
- Cut granite stone foundation walls (*above grade*).
- Exterior wall panes of hard-fired Chicago yellow "Roman" brick.
- Doors and hardware.
- Cornice, portico and corner pilasters of buff sandstone.
- Interior layout – central entry flanked by reading rooms and book stacks to the rear.
- Detailed wood interior to entry and reading rooms with wainscot, window trims and elaborate crown molding.
- Symmetrical fireplaces to reading rooms with original tile detailing.
- Period light fixtures.
- Interior tray ceilings to reading rooms and barrel vault over book stacks.
- Built-in wood furnishings including librarians front desk.

3.0 EXISTING CONDITION SKETCH FLOOR PLAN

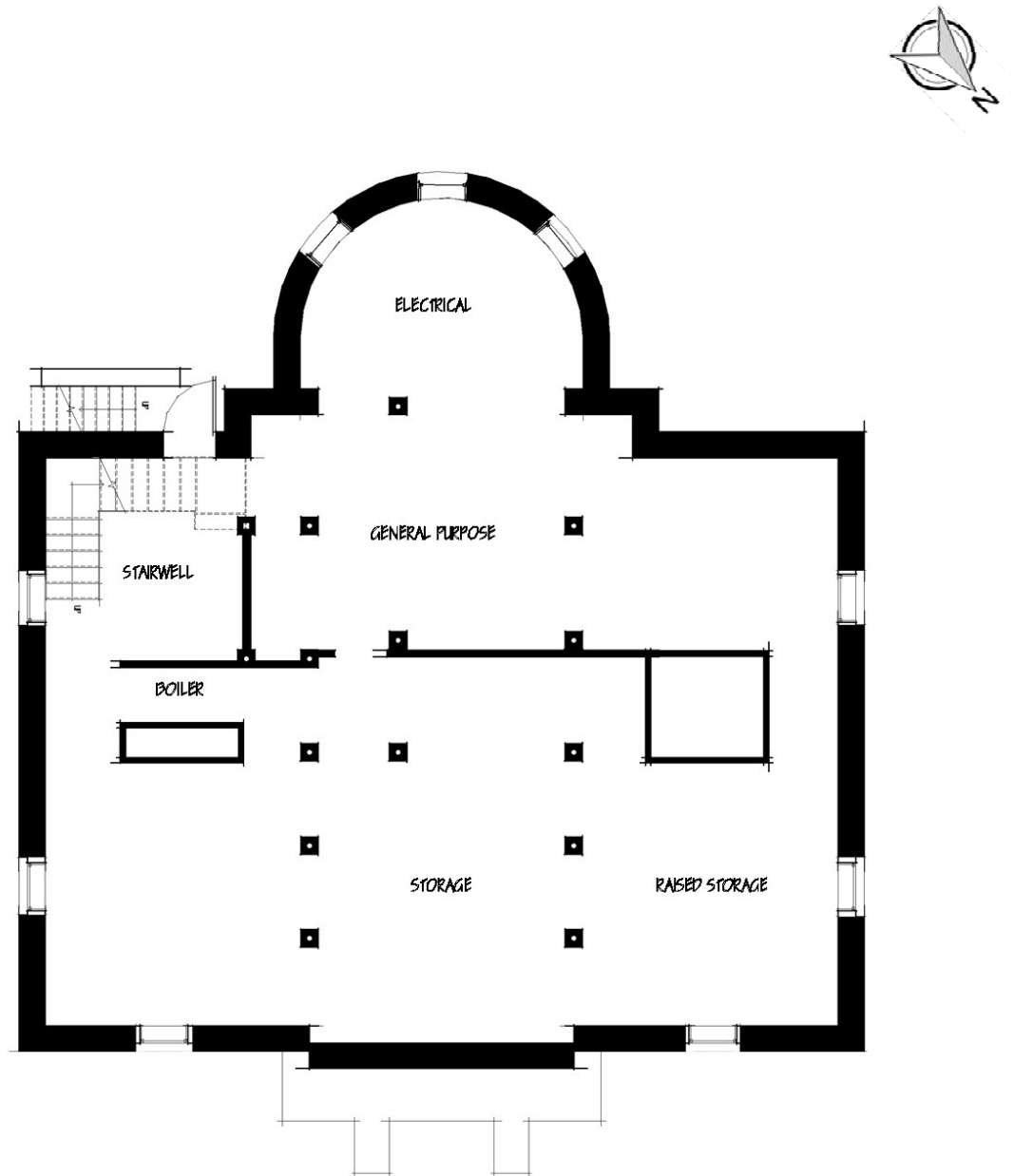
MAIN LEVEL



Note: Sketch drawings are for spatial awareness only.

3.0 EXISTING CONDITION SKETCH FLOOR PLANS

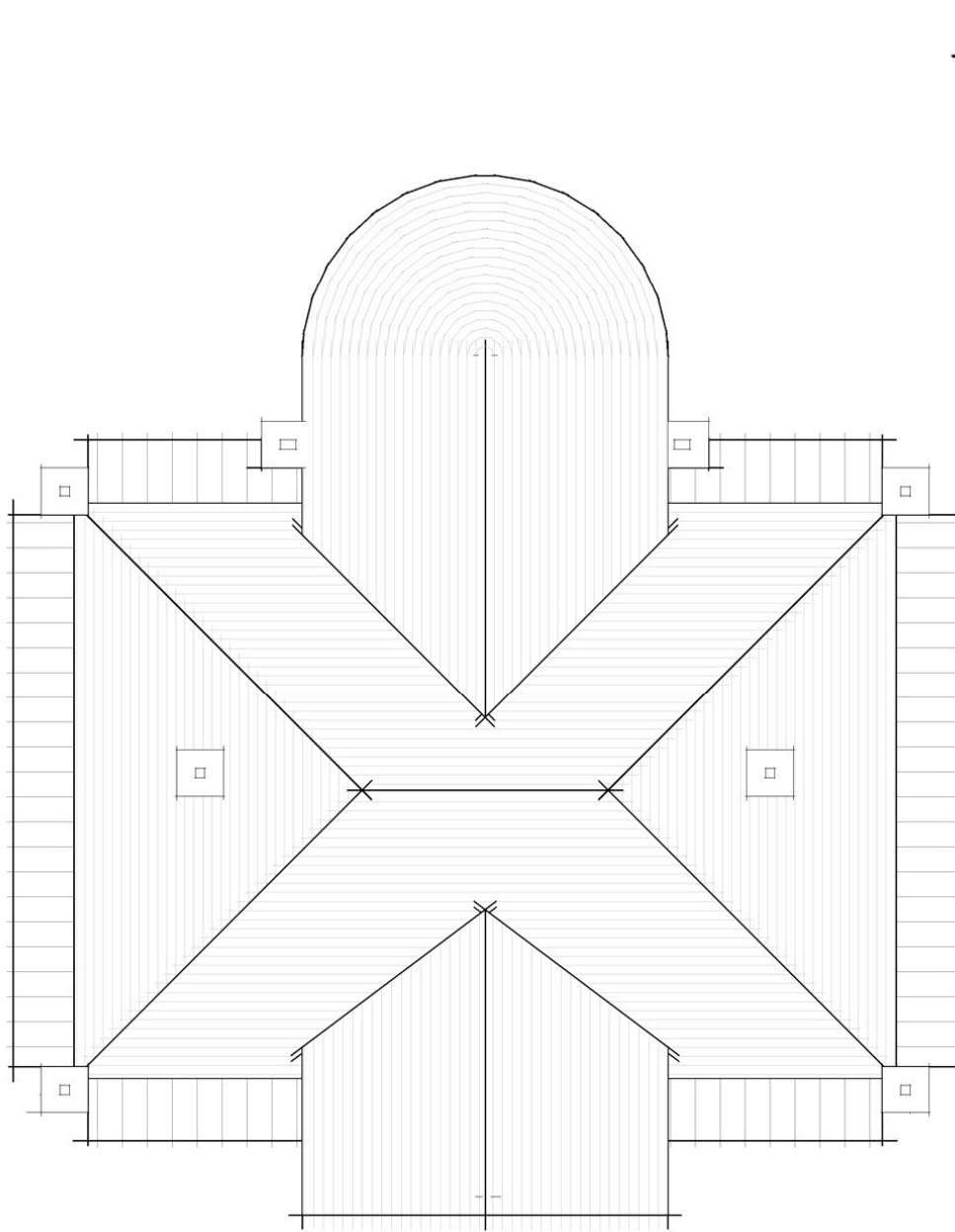
BASEMENT LEVEL



Note: Sketch drawings are for spatial awareness only.

3.0 EXISTING CONDITION SKETCH FLOOR PLANS

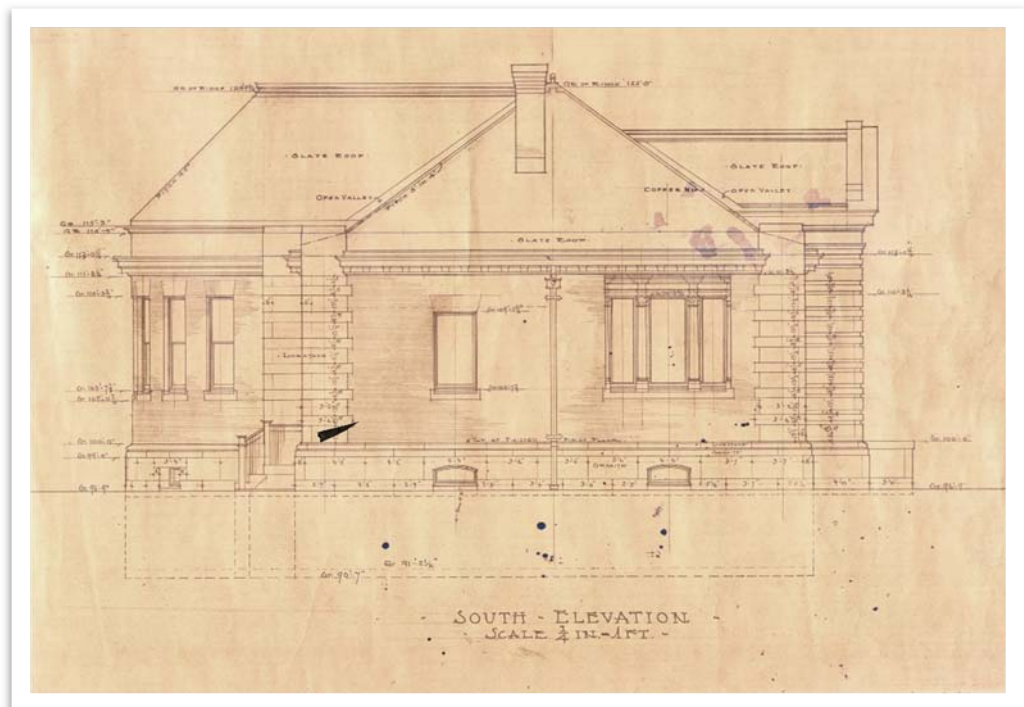
ROOF LEVEL



Note: Sketch drawings are for spatial awareness only.

3.0 EXISTING CONDITION SKETCH DRAWINGS

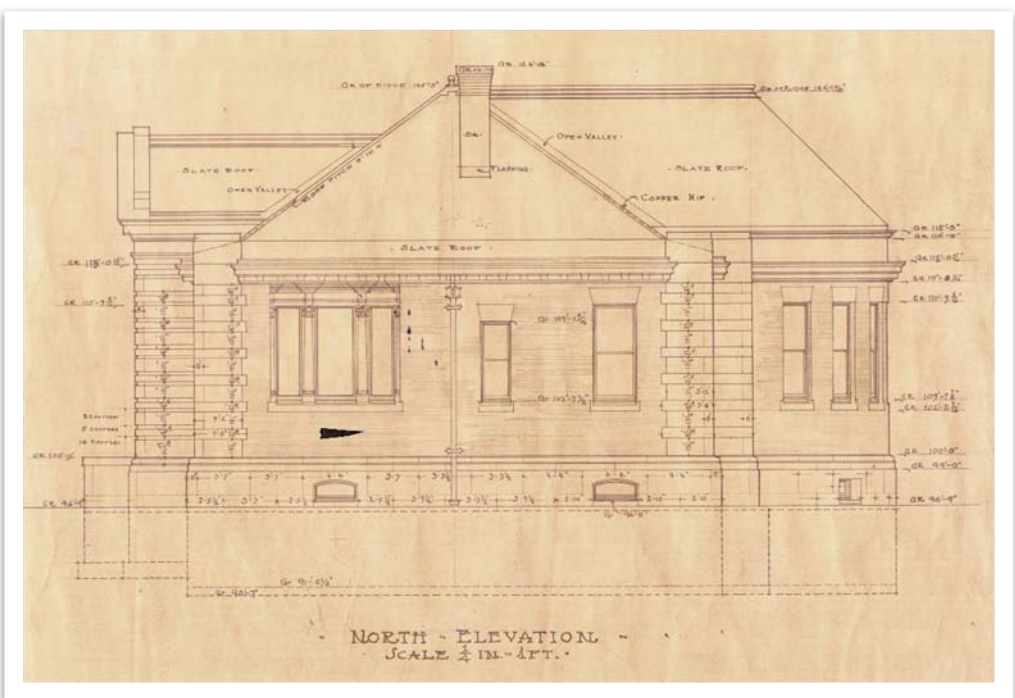
EXTERIOR ELEVATIONS



Note: Sketch drawings are for spatial awareness only.
Produced by Brigham, Coveney & Bisbee Architects circa. 1909.

3.0 EXISTING CONDITION SKETCH DRAWINGS

EXTERIOR ELEVATIONS



Note: Sketch drawings are for spatial awareness only.
Produced by Brigham, Coveney & Bisbee Architects circa. 1909.

4.0 CONDITIONS ASSESSMENT

EXTERIOR ASSESSMENT:

Foundation

The foundation construction is not entirely visible. The exterior is cut granite foundation stones exposed from grade to approximately the first-floor elevation (Image Exterior 01 – 07, Image Exterior Detail 01 – 03). To the interior of the basement the exposed foundation walls consists of concrete, to a height of approximately five feet, then red brick from five feet to the first-floor framing (Image Interior 21 – 22).

The overall foundation wall thickness appears to be 18", based on overall dimensions of interior and exterior surfaces.

The exterior of the foundation appears to be in good shape with limited signs of moisture damage and minimal spalling of stone and deterioration of mortar. The current roof drainage systems are not completely functioning as intended and are introducing a drip edge condition that is contributing to accelerated deterioration of the exterior (Image Exterior Detail 03 – 04).

Generally, the surrounding grade does allow for positive drainage away from the building from either roof run-off or surface / ground potential water from the sloped terrain to the north.

Exterior Walls

The exterior walls, from first-floor elevation up, consist of a buff sandstone radiused plinth atop the granite foundation stone walls (Image Exterior 01 – 07, Image Exterior Detail 01 – 03). Corner sandstone quoining then frames panels of thin yellow 'Roman' brick, accentuated by buff sandstone window sills, jambs and head molding, including radiused column profile with Corinthian caps between windows in groupings of three (Image Exterior Detail 06).

Single windows, to the side and rear elevations, have only sandstone sills and soldier course headers (Image Exterior Detail 07).

The walls are capped with sandstone molding with corbeled overhang and capstone (Image Exterior Detail 11 – 12).

The main entry consists of variable height sandstone blocks, with repeating recessed thin coursing, forming the two end columns and framing sandstone colonnades set out from main entry door. All is topped with sandstone cap molding and brick infill gable (Image Exterior 01, Image Exterior Detail 08).

The wall finishes are generally in good condition but do suffer from ineffective roof drainage highlighted by green 'copper' staining at multiple wall locations, and areas of spalling in the sandstone where the water collects (Image Exterior Detail 03 – 04).

Exterior Doors

The main, easterly entrance doors, framed with masonry as noted above, are solid wood three panel double doors, each approximately two feet wide by eight feet high (Image Exterior 01, Image Exterior Detail 01).

There are no doors to either of the side elevations, with just two other doors located to the rear. The most readily visible rear door is off of the basement stair landing located approximately a quarter flight down from the first-floor elevation (Image Exterior 03, Image Exterior Detail 05). The other less visible door is to the basement accessed by an open exterior stairwell, which is not afforded any drainage (Image Exterior Detail 15 – 16). Both of the rear doors are more utilitarian, with half glazed two-panel configurations.

The main entrance doors are in good condition. The entry overhang gable provides for good level of protection from the elements. The two rear doors display more signs of wear and tear, but still suitable for their use.

Windows

All windows are painted wood framed and have been refit with double-glazed units (date unknown). Older pictures indicate that screens were previously installed, but are no longer in use.

The easterly front elevation has a three-part window flanking the entry providing a symmetrical appearance (Image Exterior Detail 06). This triple has two tall narrow units aside a slighter wider center unit. All windows are fixed. These existing windows are assumed to be replacements as notation with the National Register of Historic Places Inventory Nomination Form from 1983 notes, *“on each side of the projecting entry are three-part windows with one over one sash and wider central window.”*

The northern and southern side elevations have similar three-part windows towards the west, with stand-alone double-hung one-over-one sashes (Image Exterior 03 - 07, Image Exterior Detail 07).

The westerly rear elevation has a two-part double hung to the north, stand-alone double-hung one-over-one sashes to the semi-circular projection, and stand-alone double hung adjacent to the rear entry door.

The cut granite exposed foundation wall is punctuated by small arch top basement windows to the front and side elevations, and small rectangular basement windows to the rear (Image Exterior 02 - 06, Image Exterior Detail 02).

The windows are in good order and appear to have been regularly maintained. The basement window sills are within 3" of grade and are at risk of heavy rainfall events, but do not show significant signs of damage.

Roof

The majority of the roof is a simple hipped form with the ridge line following the north-south longitudinal axis. The easterly entry elevation roof is of gable form perpendicular to the longitudinal axis of the hip. The rear elevation semi-circular projection has a pitched roof, also perpendicular to the longitudinal axis of the hip, with half conical termination (Image Exterior 01 – 07).

The roofing material is substantially a red slate transitioning to standing seam copper for approximately the last two feet towards the eave (Image Exterior Detail 09 – 10, 17 – 20). Open valleys are of copper as are the raised hip and ridge profiles.

The slate roof material is generally in good condition. The age of the installation, movement of the two predominant roofing materials (due to temperature changes and associated contraction and expansion), and the anticipated life span of the jointing materials is believed to be the cause of past leaks and will likely continue to pose similar problems requiring a 'reactionary' patching effort as future leaks occur. A more proactive remedy to the present condition would be removal and salvage of all existing copper materials, then complete replacement / re-install with new jointing and sealants, should the budget support this larger scope of works.

Additionally, the one area with gutter (Image Exterior 06, Image Exterior Detail 10), at the 'back exit' door, is no longer properly supported by the gutter brackets and therefore pitches away from the downspout and drains down the face of the wall, likely penetrating at joints and gaps. The Brackets require to be replaced / repaired and reconnected to the gutter.

Finally, at breaks in the low pitch eave copper, where stone columns accentuate the corners, a small eave has been created where the corbel work turns back into the wall. This eave encourages water to run down the face of the wall at all ten of these locations and should have a copper kick-out detail installed to minimize any roof run-off from reaching the stonework and causing the continual staining.

It is understood that the standing seam copper at the eave is covering what was the original drainage channel of integral gutters (Image Exterior Detail 17). The original gutters were towards the inside face of the exterior wall that then penetrated the corbeled overhang. It is assumed that this system was abandoned due to the increased likelihood of any failure in these gutters to have allowed water to migrate to the inside of the building. The covering of the original drainage channel has created a drip edge condition around the majority of the building perimeter, while this is preferable to the previous 'internal' drainage system, it does create increased potential for staining and long-term deterioration of the exterior masonry where the water from the roof now drips.

A newer exterior gutter has been added in one area, as noted above. This overall systems of roof drainage does not appear to adequately address the volume of water and has resulted in staining and some deterioration of the exterior masonry, as indicated above.

Chimney

There are two chimneys that project above the hipped roof line symmetrical from the easterly entry elevation. Both chimneys are of similar buff brick with a series of step outs towards the top (Image Exterior 01 - 07, Image Exterior Detail 13).

It was not fully determined but understood that the flues from the two fireplaces are no longer active. The southerly chimney is venting the mechanical systems from the basement.

The north-westerly chimney (from the northern reading room) has evidence of a structural crack. See Masonry report in Appendix II for additional detail.

INTERIOR ASSESSMENT:

The Center Harbor Library was built and continues to serve as the town of Center Harbor's community library. At this time there are no plans to alter or discontinue the buildings present use.

Basement

The interior face of the basement exterior walls is poured concrete below grade and mortared red brick above (Image Interior 21 – 22).

Interior foundation walls and basement floor show signs of water ingress, confirmed by reports of water on both basement walls and floor. Efflorescence is evident on almost all masonry surfaces (Image Interior 19 – 25). See Masonry report in Appendix II for additional detail.

Floors

The front entry vestibule presently has an all-weather matt covering the original quarry tile floor. At the inner door threshold, the floor finish changes over to large area rugs, which are laid over the original oak flooring (Image Interior 01 – 02). The original oak flooring continues throughout the majority of the main level floor with the exception of the bathroom and the office, the bathroom having a ceramic mosaic tile finish and the office having a linoleum finish (Image Interior 15). It is undetermined what finish remains under the linoleum.

The main book storage area and library front desk area have the oak flooring exposed under the book shelving, but the circulation areas are covered with the same style rugs, purpose cut to suite the aisles and desk area (Image Interior 07 – 09).

The same style of rug also covers the majority of the office and the meeting room.

The wood flooring appears to be generally in good condition where exposed. The carpeted areas are not overly worn and will suffice for the foreseeable future. The flooring seems level and does not show any signs of building settlement or structural movement or fatigue.

Walls

Interior walls are typically painted plaster on lath. In the reading areas there is a clear finished oak wainscot to window sill heights, partially concealed by cast iron radiators which have perforated metal panel enclosures around them (Image Interior 03 – 04).

The book stack / front desk area, office and meeting room are full height plaster walls with 8" oak baseboard, capped with a 1 1/4" oak ogee, and oak window and door trims, all finely detailed in accordance with the typical standard of public buildings of that period (Image Interior 01, 04, 07).

The wood finishes are all in good condition and are not in need of immediate attention.

The interior walls are generally in good condition, but do show areas of water damage, with peeling paint, particularly in the book stack area around the curved east wall (Image Interior 11). Some movement / shrinkage cracks can also be seen in this area.

The front lobby area also has a high degree of oak crown molding at the wall heads which cantilevers out from the wall approximately 3" (Image Interior 02, 04, 16). This wall molding continues into the two reading areas as well.

The bathroom has a subway tile wainscot on all four walls, that extends three courses, plus the capping bullnose trim (Image Interior 15).

The basement walls (as described in the foundation) are a combination of concrete and brick to the perimeter wall, and plaster on framing or block. Most areas are painted, with some areas of exposed brick. Significant peeling in the basement suggests significant moisture in the walls, thought to be a result of the ineffective surface drainage around the perimeter of the building, and water ingress from areas of roof with little overhang or damaged gutters.

Ceilings

Ceilings to the main floor are painted plaster, with several areas of vaulted and tray ceilings (Image Interior 03 – 04). The lobby and book stack areas have vaulted ceilings, at two different levels and radii (Image Interior 01 – 09), and the two reading areas have tray ceilings with a radiused vertical transition to the walls.

The office, meeting room and bathroom all have flat plaster ceilings.

All main level ceilings are painted and appear to be in good condition. Any previous water damage or cracking is not presently visible so assumed to have been corrected.

The basement ceilings are in varying degrees of disrepair, with numerous holes cut for access and deteriorating finish (Image Interior 20 – 22). Although the basement is not open to the public, consideration

should be given to address the state of the ceilings and determine the best solution to allow future access to floor structure but offer some degree of protection and concealment to it also.

Doors

Interior doors on the main level are all a high standard oak door, generally six panel, some with arched tops (doors from the lobby or reading areas) and numerous square tops to the remainder of the main floor (Image Interior 02, 12 – 23).

Hardware is typically a brass turn knob with rectangular escutcheon, it is assumed to be original. The hardware appears to be in good order and shows no reason for short term repair or replacement, short of a change in door function.

There are no doors in the basement apart from the lower level safe and the wooden exit door (Image Interior 26). The exit door is configured with a glazed upper panel and two vertical recessed lower panels. While this door still serves its purpose it is in need of repair, which at a minimum should include scraping, application of wood filler where needed, and re-painting.

STRUCTURE:

The following is an extract from a Structural Engineers assessment. The full structural assessment and recommendations can be found in Appendix I.

The foundation of the building has cast-in-place concrete walls below grade with brick and stone masonry above. The size of the footings and reinforcement is unknown. Many cracks were observed in the foundation wall with water staining and moisture on the inside surface. The cracks do not appear to be affecting the structural capacity of the foundation.

The first-floor framing consists of full sawn 2"x6" wooden floor joists spaced 16" o.c. The joists span approximately 9-feet under the book shelf area and 14-feet under the lobby and side rooms. The joists are bearing on 6"x10" timber beams that are supported by 12"x12" brick masonry columns. The columns are spaced 5 to 6-feet o.c. The floor framing appears to be in good condition in the areas where it could be observed through holes in the lath & plaster ceiling.

The hip roof framing is supported by the exterior brick walls that are approximately 2' thick. The brick walls appear to be in good condition and only a few areas of cracking were observed. The roof has slate shingles with copper flashing and integral gutters at the bottom. The ridge beams are double 2"x10" solid sawn members. The hip beams are 4"x10" timbers. The valley rafters are 4"x12" timbers. The rafters in the main roof are full-sawn 2x10s spaced at 20" o.c. The rafters in the front gable section and the rear, rounded hip section are full sawn 2x8s spaced at 20" o.c. In general, the roof framing appears to be in good condition with no obvious signs of overstress. There are several areas where water staining was observed, but no significant rot was observed.

MASONRY:

The following is an extract from the Masonry Consultant assessment. The full masonry assessment and recommendations can be found in Appendix II.

The masonry components to the building are in generally very good to excellent condition, with minor problems that are fairly easily mitigated. The following entries address the conditions of each type of masonry material found in the building.

Exterior Granite

The granite foundation stones require extremely minor re-pointing particularly at the four corners of the building from long-term water-related erosion as well as removal of grime and green biological growth resulting from repeated splash-back of water draining from the roof. They are otherwise in excellent condition and require no further treatment.

Exterior Brick

The main wall areas of brick require essentially no repointing but widespread biological growth (black mold/ lichens) was observed on the mortar joints only. The western chimney exhibits a significant structural crack on its western elevation at the southwest corner.

Sandstone

The sandstone components are generally in very good condition. Several well-executed Dutchmen repairs are visible in the lower courses of rusticated quoining at the main entrance. An area of delaminated stone was observed at the southeast corner of the building near the rear exterior entrance.

Minor failure of pointing issues was noted in the vertical mortar joints of the sandstone water table, mostly located at the corners of the building. There is green staining on the sandstone in many areas, mostly near copper gutters, drip edges and downspouts, caused by minor leaks in the built-in gutters and downspouts.

Interior Foundation Materials

The interior basement materials (poured concrete walls below grade, mortared red brick above, poured concrete floor and wall plaster in the southeast corner) are in structurally sound condition but exhibit extensive buildup of soluble salts ("efflorescence") on many surfaces. It is most extensive near the four corners of the foundation but can be seen in most other areas on the brick faces, weeping out of mortar joints and hairline cracks in the concrete.

In the case of the Library, the condition of the basement is clearly symptomatic of long-term exterior drainage problems. Though the site is on a hillside sloping to the southeast, the immediate site is extremely flat. The building is fitted with built-in eaves gutters leading to decorative copper downspouts. The foundation features foundation splash stones on all sides. However, the drainage system is currently designed only to concentrate runoff from the roof into isolated gutters that empty out onto the ground only inches from the foundation. While the gutters and downspouts appear to be sized adequately for the

water load from the roof, the water does not drain away from the foundation, takes too long to dissipate into the ground, and is constantly being absorbed by the foundation masonry.

The existing efflorescence can be easily and inexpensively removed once drainage problems are solved, as discussed below.

The exterior basement stairwell is of poor initial design given the harsh New England climate, and is a constant trap for rainwater and melting snow that drain into the basement and are absorbed by surrounding foundation materials at even higher levels than the remaining areas of foundation. The cast concrete steps descending to the basement have many cracks resulting from freeze-thaw cycles and will soon become unstable and a safety hazard. The parged masonry covering the open stairwell walls is cracked, deflected, and in a state of near complete failure.

MECHANICAL, ELECTRICAL & PLUMBING SYSTEMS:

Heat & Ventilation

The building has a forced hot water heating system, utilizing the original cast iron radiators and a more recent replacement oil fired boiler (Image Interior 11 – 27). The boiler appears to be sized accordingly and user reports suggest it is adequate for the purpose and does not require attention other than routine maintenance.

Heating to the basement is through several wall mounted fan-coil units, also supplied by the oil fired boiler.

There does not appear to be an active ventilation system in any portion of the building, including the bathroom. Due to the low levels of moisture, on the main floor, and anticipated natural air changes through attic spaces and window / door openings, the need for additional ventilation at this time is limited. Upgrades to air-tightness of the building envelope would likely require the introduction of mechanical ventilation.

The basement level does require continuous de-humidification, in large part due to the elevated moisture levels from water ingress through foundation walls and rainwater run-off not properly drained from the roof.

Mechanical cooling is provided for the main level with a 'mini-split' air handler high up on the east wall of the lobby area. No fresh air / ventilation is provided through this unit.

An electrical subpanel in the basement indicates a breaker for air conditioning to the office, but no unit was observed in that area.

Two fireplaces are part of the original construction, but do not appear to have been used for some time.

Electrical

Main utility power is provided to the building by underground lines that enter in the basement on the west elevation, north-east end of the curved wall. The service has the main disconnect box located in that corner and another subpanel located closer to the boiler.

The main panel has approximately 13 breakers used, less than half of the panel. The subpanel has 20 breakers and all appear to be in use, as it seems the bulk of the building is served from this panel.

Most if not all of the wiring has been upgraded and visually appears to be in metal conduit below the basement ceiling. Some plastic sheathed wiring is also evident.

Basement lighting is primarily flush florescent T-8 box fixtures, assumed to be 4 element boxes throughout (Image Interior 21, 25 - 26).

The main level electrical installation seems in order, though only fixtures and fittings are visible.

Light fixtures are a mix of original incandescent and newer up-lights and tracks are LED. Incandescent fixtures are a combination of pendants in the reading areas, lobby, meeting room, bathroom and office, and single-bulb ceiling mounted fixtures in the book stack area. Additional traditional wall sconces are located through the public areas as well, it is unknown if these are original (Image Interior 01, 06, 14).

It is assumed the existing fixtures have been upgraded to current code, but at the time of this report that had not been verified.

Emergency egress lighting and signage appears to be up to date, as are smoke / heat detectors.

Plumbing

The building is served by public water supply and sewer.

The sewer connection exits in the basement, in the north-west corner of the main body of the building. The foul line venting runs up from there, behind the bathroom and up through the roof hip facing north.

The water enters the building on the north elevation, also under the north facing hip, where a disused sink is located in the basement, along with a 50-gallon hot water tank. There is then a branch off the line to serve the bathroom, an external hose-bib on the north elevation (cut through the frame of a lower level window) and a line to the boiler. An additional branch heads off to the south west, but the purpose of this was not readily visible.

Most piping is copper, but a few branches appear to be lead, though it is not clear if these lines are still used.

The only other plumbing fixtures (toilet and wash hand basin) are located in the bathroom, slight east of the water service incomer.

There were two 'floor drains' noticed in the basement, but upon further investigation it seems these drains are not served by any drain line, appearing to just drain into a space under the slab. The drains are capped and probably should not be used, or better still sealed permanently.

The systems in general appear to be in working order and no issues were reported at the time.

LIFE SAFETY SYSTEMS:

As indicated in the electrical section, the anticipated smoke / heat detectors, emergency lighting and egress signage / lighting seem to be in order.

There are alarm activators at egress doors and signage for fire extinguishers located through the building (some of which do not have an extinguisher readily apparent).

There is an alarm control panel located on the west wall of the basement, under the curved / vaulted section of the building. The alarm does have a link to the fire department however periodic inspection of the systems and capabilities is recommended.

ACCESSIBILITY

Most buildings and their context were historically not designed to be readily accessible for people with disabilities. The challenges presented are then how to preserve historically significant properties while simultaneously making these properties more accessible to people with disabilities.

There is no exterior entry point to the building that provides for flush or ramped access to the building, therefore, by the ADA Standards for Accessible Design as documented by the Department of Justice, the building is inaccessible. Buildings of this period were not designed to meet current accessibility codes and standards.

With respect to the interior, access to all public spaces is available, although minimum clearances and widths at doorways would need to meet current ADA requirements, and have not been confirmed at this time.

The bathroom layout does not comply with ADA requirements and is too small to bring into compliance without significant alteration.

A previous 1992 study explored the possibility of adding a ramp to provide accessibility to the library (see concept sketch in Appendix V). At that time the Trustees decided it was not a high priority. The trustees *“noted opinion from Judith Kimball and Tom Ladd (both from the NH State Library) that a plan to arrange*

delivery of material to disabled patrons and an arrangement with neighboring libraries with ADA access to allow our patrons to use that library would be sufficient to meet any challenge from the ADA”.

Accessibility should be reviewed for periodically both in terms of priority and compliance with applicable codes.

ENERGY EFFICIENCY

The buildings thermal envelope could not be fully determined as not all of the thermal envelope is readily visible.

Insulation is above the ceiling, at the attic / main floor ceiling level, therefore creating a cold attic. The insulation is primarily fiberglass batts laid over the flat / tray ceilings and tied in between the framing of the barrel-vaulted ceiling. Wall insulation is not visible in any areas but is presumed to be minimal due to the anticipated build-up of the walls.

There are significant amounts of area permitting air flow from the conditioned spaces to the attic space which will greatly reduce the already under insulated state of the conditioned spaces.

The window glazing has been replaced with sealed double-glazed units to improve on their efficiency, but it is suspected there is still air ingress around these and the original doors.

The mechanical conditioning equipment seems to be reasonably up-to-date, but their efficiencies are compromised by the lack of adequate insulation and air sealing. If additional air sealing is to be pursued, then careful consideration to minimizing the level of disturbance to existing historic fabric should be given.

5.0 RECOMMENDATIONS

In line with the understanding of the Center Harbor Library's historical significance, and working within the guidelines for historical preservation as defined by the National Park Service and the Secretary of Interiors Standards, the review team would recommend the following items be addressed, subject to available funding.

The intent of the recommendations hierarchy is in part sequential and as follows:

- Primary – Address failures of the building envelope, in particular areas permitting water / moisture ingress into the building fabric and interior spaces. Carry out deferred maintenance work on areas affected by moisture issues.
- Secondary – Address building surface drainage and surrounding grade drainage to eliminate build-up of grade moisture penetrating the building fabric.
- Tertiary – Address finishes to maintain and preserve character defining elements; establish long term maintenance schedule to better insure regular repairs/upgrades to the building in the coming years.

RECOMMENDATIONS	PRIMARY PRIORITY
1.1 Roof Gutters - Inspect all existing roof gutters for deterioration and repair or replace accordingly. Seasonally inspect and clean as necessary. Particularly addressing the shortcomings of the existing gutter at the rear entry door.	
1.2 Roof Diverters - Introduce rain water diverters to metal portions of roof to direct water to drip overhangs and prevent run-off down the face of the masonry.	
1.3 Roofing – Repair or replace any broken / missing slate.	
1.4 Masonry / Structure - Repair any cracks in the masonry walls.	
1.5 Masonry – Repair cracks in chimney and seal top of masonry.	
1.6 Chimney – Install tight fighting copper chimney caps to both chimneys.	
1.7 Exterior Grade - Alter grade at base of exterior wall to allow for positive drainage away from building before absorption into the grade directly adjacent to the building.	
1.8 Perimeter Field Drains - Install perimeter field drains around the building, maximizing depth of drain lines to better address ground water present from 'uphill' properties, and creating / locating drip lines to deal with drainage through gravity driven route. This will also be of some benefit given the proximity of the basement windows to the current grade.	
1.9 Exterior Curtain Drains – Install curtain drains (trench filled with gravel and perforated pipe) uphill of the building to prevent any groundwater from approaching the building (approximately 20' – 30' from building).	
1.10 Exterior Stairwell Parging - Remove all failing cement parging in the exterior basement stairwell and allow the substrate to dry out.	
1.11 Exterior Stairwell Parging - Repair plaster and parging only with traditional high-calcium architectural lime mortar and plaster that has no Portland cement content. <i>(Only a qualified expert in traditional masonry and plasters and a qualified architectural conservator should provide specifications and complete these repairs).</i>	
1.12 Life Safety – Ensure fire extinguishers are regularly maintained and are located appropriately. Periodically review alarm system detection and notification with local Fire Department.	

RECOMMENDATIONS	SECONDARY PRIORITY
2.1 Interior Basement Masonry - Remove efflorescence using a soft brass-bristle brush. <i>(Even after any drainage problems are mitigated expect more efflorescence to continue to appear for two to three years as the masonry dries out. Removing the efflorescence once a year and monitoring its reappearance over time will provide a long-term indication of how well a new or adapted drainage system is performing).</i>	
2.2 Interior Basement Plaster - Remove all failing interior plaster finish coats and poorly-executed basecoat patches and allow the substrate to dry out.	
2.3 Masonry Cleaning - Remove all biological growth on exterior stone and brick mortar joints with an eco-friendly mildewcide. Specifications should be provided by a qualified architectural conservator.	
2.4 Exterior Stairwell Roof & Steps - Consider constructing a roof structure over the exterior rear entrance and basement stairwell. A well-designed roof that is sympathetic to the architecture of the building will greatly contribute to long-term water management and masonry preservation in the southeast corner of the building. Simultaneously, review methods for increased stability / load bearing of rear entry steps.	
2.5 Basement Moisture Management – If perimeter field drains are not installed (as noted above), or does not completely control moisture, consider an automated dehumidification system.	

RECOMMENDATIONS	TERTIARY PRIORITY
3.1 Accessibility – Consider options to provide accessible route to building interior.	
3.2 Structure – Monitor the building for additional movement or cracking in the masonry. Establish bench mark readings / measurements of critical building dimensions or any existing cracks. Periodically (at least annually) verify with new readings / measurements to monitor any change.	
3.3 Finishes – Implement routine / scheduled maintenance of all finishes. Create an itemized list of all finishes and their typical cycle for maintenance, cross reference with any existing maintenance logs or create new to establish continuity of information.	

ESTIMATE OF PROBABLE COSTS

Note, estimate of probable costs provided to establish order of magnitude, further definition of scope of works would be needed to more accurately predict these costs. See previous recommendations for full descriptions.

primary recommendations		estimate
1.1	Roof Gutters - Inspect all roof gutters for deterioration and repair or replace accordingly.	\$6,000
1.2	Roof Diverters - Introduce rain water diverters to metal portions of roof to direct water to drip overhangs and prevent run-off down the face of the masonry.	\$4,000
1.3	Roofing – Repair or replace any broken / missing slate.	\$2,000
1.4	Masonry / Structure - Repair any cracks in the masonry walls.	\$7,500
1.5	Masonry – Repair cracks in chimney.	\$2,500
1.6	Chimney – Install tight fitting copper chimney caps to both chimneys.	\$2,000
1.7	Exterior Grade - Alter grade at base of exterior wall to allow for positive drainage away from building before absorption into the grade directly adjacent to the building.	\$8,000
1.8	Perimeter Field Drains - Install perimeter field drains around building.	\$24,000
1.9	Exterior Curtain Drains – Install curtain drains uphill of the building to prevent any groundwater from approaching the building.	\$12,000
1.10	Exterior Stairwell Parging - Remove all failing cement parging.	\$4,500
1.11	Exterior Stairwell Parging - Repair plaster and parging only with traditional high-calcium architectural lime mortar and plaster that has no Portland cement content.	\$4,500
1.12	Life Safety – Ensure fire extinguishers are regularly maintained.	\$1,500
sub-total		\$78,500
contingency @ 15%		\$11,775
primary total		\$87,975
secondary recommendations		estimate
2.1	Interior Basement Masonry - Remove efflorescence using a soft brass-bristle brush.	\$6,000
2.2	Interior Basement Plaster - Remove all failing interior plaster finish coats and poorly-executed basecoat patches and allow the substrate to dry out.	\$10,000
2.3	Masonry Cleaning - Remove all biological growth on exterior stone and brick mortar joints with an eco-friendly mildewcide.	\$12,000
2.4	Exterior Stairwell Roof - Consider constructing a roof structure over the exterior rear entrance and basement stairwell.	\$1,500
2.5	Basement Moisture Management – If perimeter field drains are not installed (as noted above), or does not completely control moisture, consider an automated dehumidification system.	\$6,000
sub-total		\$35,500
contingency @ 15%		\$5,325
secondary total		\$40,825
tertiary recommendations		estimate
3.1	Accessibility – Consider further study of options to provide accessibility.	\$1,500
3.2	Structure – Monitor the building for additional movement or cracking in the masonry.	\$1,500
3.3	Finishes – Implement routine / scheduled maintenance of all finishes.	\$5,000
sub-total		\$8,000
contingency @ 15%		\$1,200
tertiary total		\$9,200
recommendation total (primary + secondary + tertiary)		\$140,300

LIFE SAFETY

The James E. Nichols Memorial Library is an existing building in current use and would therefore be subject to the existing building codes as currently adopted by the State of New Hampshire, these would predominantly be:

- International Existing Building Code, 2009 – Chapter 11
- NFPA 101, Life Safety Code, 2015.

Please note that the following does not form an extensive code review, rather summary commentary on several codes aspects.

Building and Life Safety codes as they pertain to existing buildings are routinely updated. Existing buildings largely fall under the purview of the local Authority Having Jurisdiction to interpret the requirements needed to adequately meet the minimum level of life safety appropriate to a building use. There are avenues for the relaxation of codes when dealing with historic structures, and this should be reviewed with the Authority Having Jurisdiction and the NH Division of Historic Resources.

With the intended function to remain as a library it would be classified as an Assembly (A-3) type occupancy. Assembly occupancies are one of the most restrictive building occupancies serving as a public gathering space of persons not necessarily familiar with their surroundings.

Reviewing the requirements of a type A-3 occupancy with respect to the current library would provide the following restrictions:

- Maximum Occupant Load – 26 occupants (*approximate based on IBC library occupant loads*).
- Minimum Number of Exits – 2.
- Minimum Egress Width – Doors 36", Stairs 44".
- Maximum Travel Distance – 200'.
- Maximum Common Path of Travel – 75'

It is recommended that the James E. Nichols Memorial Library maintain regular review and inspection with the Center Harbor Fire Department to ensure all systems are acceptable for continued use.

6.0 REHABILITATION APPROACH

As noted previously, the James E. Nichols Memorial Library has been successfully entered to the National Register of Historic Places as part of the Center Harbor Village Historic District. With this the Secretary of the Interior's Standards for the Treatment of Historic Properties provides valuable information and insight for best practices for undertaking various works.

The Standards offer four distinct approaches to the treatment of historic properties—preservation, rehabilitation, restoration, and reconstruction.

It would be recommended that Town of Center Harbor give consideration to the approach of rehabilitation when addressing future works. The Standards define Rehabilitation as *“the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values”*.

The Secretary's Standards for Rehabilitation are defined as follows:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall 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 architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be

compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall 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.

In addition, the National Park Services publishes multiple Preservation Briefs providing guidance on preserving, rehabilitating, and restoring historic buildings. The following briefs should be given due consideration:

1. Cleaning and Water-Repellent Treatments for Historic Masonry Buildings.
2. Repointing Mortar Joints in Historic Masonry Buildings.
3. Improving Energy Efficiency in Historic Buildings.
4. Roofing for Historic Buildings.
9. The Repair of Historic Wooden Windows.
17. Architectural Character—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character.
18. Rehabilitating Interiors in Historic Buildings—Identifying Character-Defining Elements.
21. Repairing Historic Flat Plaster—Walls and Ceilings.
24. Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches.
28. Painting Historic Interiors.
29. The Repair, Replacement, and Maintenance of Historic Slate Roofs.
32. Making Historic Properties Accessible.
39. Holding the Line: Controlling Unwanted Moisture in Historic Buildings
47. Maintaining the Exterior of Small and Medium Size Historic Buildings.
50. Lighting Protection for Historic Buildings.

The National Park Service Preservation Briefs are available online at the following location:
<https://www.nps.gov/tps/how-to-preserve/briefs.htm>

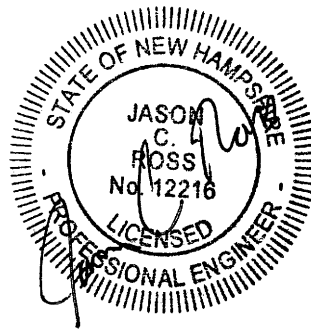
Furthermore, should any proposed works anticipate major ground disturbance, then review of potential archeology should be considered.

APPENDIX I
STRUCTURAL OBSERVATIONS AND CONDITIONS ASSESSMENT

STRUCTURAL ASSESSMENT REPORT
JAMES E. NICHOLS MEMORIAL LIBRARY
35 PLYMOUTH STREET
CENTER HARBOR, NEW HAMPSHIRE

Prepared for:
Alba Architects

December 18, 2018



Prepared by:
HEB Engineers, Inc.

Project #2018-130

December 18, 2018

Stuart Anderson, AIA
Alba Architects
137 Daniel Webster Highway
North Woodstock, NH 03262

**Re: James E. Nichols Memorial Library, 35 Plymouth Street, Center Harbor, NH
Structural Assessment Report
HEB Project #2018-130**

Dear Stuart,

This Structural Assessment Letter Report has been prepared by HEB Engineers, Inc. (HEB) to address the concerns about the structural integrity of the James E. Nichols Memorial Library building located at 35 Plymouth Street in Center Harbor, New Hampshire. On November 1, 2018, I visited the building with you to observe the existing structure. Presented in this Letter Report are my field observations and recommendations. This work was performed in accordance with our Letter Agreement, dated November 28, 2018 and signed on December 12, 2018.

Field Observations:

The existing masonry and wood-framed, building was originally built in 1910 and is now on the National Register of Historic Places (see Photo 1). The building is approximately 46 feet wide by 35 feet deep, with a 19 foot diameter, semi-circular room off the back of the structure (see Photo 2). The building has always been used as a library, and contains one main room with book shelves, a lobby, two reading rooms, a meeting room, and an office. The building is currently heated and is used year-round.

The foundation of the building has cast-in-place concrete walls below grade, with brick and stone masonry above. The size of the footings and reinforcement are unknown. Many cracks were observed in the foundation walls, with water staining and moisture on the inside surface (see Photo 3). There appears to be no insulation on the wall. The floor of the basement is a concrete slab-on-grade. There are many regularly spaced cracks on the floor, approximately 2 to 3 feet o.c. (see Photo 4).

The first-floor framing consists of full-sawn 2-inch x 6-inch wooden floor joists spaced 16 inches o.c. (see Photo 5). The joists span approximately 9-feet under the book shelf area, and 14-feet under the lobby and side rooms. The joists are bearing on 6 inch x 10 inch timber beams that are supported by 12 inch x 12 inch brick masonry columns (see Photo 6). The columns are spaced 5 to 6 feet o.c. The floor framing appears to be in good condition in the areas where it could be observed through holes in the lath and plaster ceiling.

The hip roof framing is supported by the exterior brick walls that are approximately 2 feet thick (see Photo 7). The brick walls appear to be in good condition, with only a few areas of cracking observed. The roof has slate shingles with copper flashing and integral gutters at the bottom. The ridge beams are double 2-inch x 10-inch members (see Photo 8). The hip beams are 4-inch x 10-inch timbers. The valley rafters are 4-inch x 12-inch timbers. The 2-inch x 10-inch rafters in the main roof are spaced at 20 inches o.c. The 2-inch x 8-inch rafters in the front gable section and the rear rounded hip section are spaced at 20 inches o.c. In general, the roof framing appears to be in good condition with no obvious signs of overstress. There are several areas where water staining was observed, but no significant rot was observed. Some cracks were observed on the bricks in the western chimney.

There is an exit stairway on the southern (rear) side of the building that spans over a lower-level exit stairway (see Photo 9). The upper stairs are constructed with cantilevered granite slabs. Although it is unclear as to how these slabs are being supported, no significant movement was observed in the stairs (see Photo 10).

Conclusions and Recommendations:

In general, the building appears to be in good condition, however; based on my observations, it does not meet the current NH building code for floor or roof-snow loading. Based on the International Existing Building Code (IEBC-2009), as there is no proposed change in use, major renovations, or increase in loading, we do not recommend upgrading the floor or roof framing to meet the current load requirements at this time. The cracks in the foundation walls and floors do not appear to be affecting the structural capacity of the foundation. The structure should be monitored for areas of excessive deflection or movement.

We recommend that the following repair items are done:

- Repair any cracks in the masonry walls and chimney. Seal the top of masonry to prevent water from entering structure.
- Repair or replace any broken/missing slate shingles from the roof.
- Monitor the building for additional movement or cracking in the masonry.
- Monitor the rear stairway for movement.
- Consider insulating the outside of the foundation walls to help prevent condensation.
- Install curtain drains uphill from the building to prevent any groundwater from infiltrating the basement area.

Disclaimer:

The opinions and recommendations contained in this report are based on a “walk-through” field investigation performed as part of this work. Only limited calculations were performed to determine if certain structural members are in compliance with adopted building codes and no physical testing was performed. This report does not address any other part of the structure other than those mentioned, nor does it provide any warranty, either express or implied.

Please do not hesitate to contact us if you have any questions or need any additional information.

Sincerely,
HEB Engineers, Inc.



Jason C. Ross, PE
Senior Structural Engineer

Attachment A – Photo Pages

Copy: File

APPENDIX A

Photo Pages



Photo 1: View of front of building.



Photo 2: View of rear of building.



Photo 3: Looking at cracks and water staining on foundation walls.



Photo 4: Looking at cracks in basement slab.



Photo 5: View of floor framing.



Photo 6: View of brick columns.



Photo 7: Looking at bottom support of roof framing.



Photo 8: Looking at ridge beams.



Photo 9: View of granite staining at rear of building.



Photo 10: View of cantilevered granite steps.

APPENDIX II
MASONRY OBSERVATIONS AND CONDITIONS ASSESSMENT

**CONDITIONS ASSESSMENT AND TREATMENT RECOMMENDATIONS
for
HISTORIC MASONRY**

James E. Nichols Memorial Library

35 Plymouth Street
Center Harbor, New Hampshire 03226

December, 2018



P.O. Box 8 Cape Neddick Maine 03902

(207) 351-5066

Introduction

On 17 November 2018 Groundroot Preservation Group personnel performed a site visit to inspect the condition of the various masonry materials present in the James E. Nichols Memorial Library (henceforth “the Library”). Exterior stone and brick components and interior foundation materials were evaluated. The environmental conditions were ideal for assessment, as freshly fallen snow had begun to melt and highlight certain drainage and infiltration issues that might not have been apparent on a drier day.

This report addresses the condition of the building’s masonry elements. We have identified all areas of concerns and make recommendations for treatment so project administrators can begin overall planning for the building’s repair and long-term preservation.

The Library building reflects the golden age of the railroad in its use of some non-native materials in much of its construction, and also the use of then very modern materials (poured concrete, Portland cement and gypsum plaster). The exterior of the building features hard-fired Chicago yellow “Roman” brick for the main wall surfaces. Buff sandstone was used for the cornice, portico and corner pilasters that may have been shipped in by railroad and boat from either coastal Virginia (“Aquia”) or Ohio (Scioto”) judging by its color and grain. The red slate roof tiles would have come from the lower Champlain Valley (upstate New York or western Vermont). The exterior foundation facing above grade is New Hampshire grey granite. Below grade the foundation is poured concrete below grade and hard-fired red brick laid in white Portland cement mortar above. The stair well leading from the first floor to the basement is finished in hard gypsum plaster and the exterior stairwell leading to the basement has slab granite stairs and walls constructed of brick and stone parged with Portland-type cement.

Summary of Findings

The masonry components to the building are in generally very good to excellent condition, with minor problems that are fairly easily mitigated. The following entries address the conditions of each type of masonry material found in the building.

Exterior Granite

The granite foundation stones require extremely minor re-pointing particularly at the four corners of the building from long-term water-related erosion as well as removal of grime and green biological growth resulting from repeated splash-back of water draining from the roof. [Figure 1](#). They are otherwise in excellent condition and require no further treatment.



Figure 1: Detail of granite foundation stones showing minor accumulations of biological growth due to long-term moisture exposure.

Exterior Brick

The main wall areas of brick require essentially no repointing but widespread biological growth (black mold/ lichens) was observed on the mortar joints only.

[Figure 2](#) The western chimney exhibits a significant structural crack on its western elevation at the southwest corner [Figure 3](#). The cause of this crack appears to be the result of a combination of several factors: the extreme hardness of the construction materials (the particular bricks and mortar type used); repeated exposure to water infiltration from the top and requisite seasonal freeze-thaw cycles over time, and long-term exposure to wind-driven precipitation, being a highly exposed and ultimately fairly fragile feature at the top of the building.



Figure 2: Detail of exterior brick showing typical black mildew growing on the mortar joints.



Figure 3: Detail of the western chimney looking southeast. The red line shows the position of the crack.

Sandstone

The sandstone components are generally in very good condition. Several well-executed Dutchmen repairs are visible in the lower courses of rusticated quoining at the main entrance. [Figure 4](#) An area of delaminated stone was observed at the southeast corner of the building near the rear exterior entrance. [Figure 5](#) This is due to drainage, splash-back from the steps, and repeated freeze-thaw cycles. This should be repaired using the Jahn Mortar system manufactured by Cathedral Stone.

Minor failure of pointing issues was noted in the vertical mortar joints of the sandstone water table, mostly located at the corners of the building. This is due to repeated sheeting action of water cascading down the walls and long-term freeze-thaw conditions. [Figure 6](#) There is green staining on the sandstone in many areas, mostly near copper gutters, drip edges and downspouts, caused by minor leaks in the built-in gutters and downspouts. [Figures 7- 9](#) These stains should be seen as permanent, as they are difficult or impossible to minimize or completely remove with today's technology. Proper maintenance of the gutters and better overall site drainage will help curb ongoing staining.



Figure 4: Detail of well-executed Dutchman repairs to areas of sandstone near the front entrance.



Figure 5: View of spalling, delaminated sandstone at the southeast corner of the building.



Figure 6: Detail of sandstone water table mortar joint showing typical, minor loss of pointing mortar.



Figure 7: Typical staining resulting from corrosion of copper roofing and gutters.



Figure 8: Typical staining resulting from corrosion of copper roofing and gutters.



Figure 9: Typical staining resulting from corrosion of copper roofing and gutters.

Interior Foundation Materials

The interior basement materials (poured concrete walls below grade, mortared red brick above, poured concrete floor and wall plaster in the southeast corner) are in structurally sound condition but exhibit extensive buildup of soluble salts (“efflorescence”) on many surfaces. [Figures 10 through 12](#) It is most extensive near the four corners of the foundation but can be seen in most other areas on the brick faces, weeping out of mortar joints and hairline cracks in the concrete. It should be noted that although the concrete has thousands of hairline cracks this is not a sign of deterioration and the material appears to be sound. This problem is most severe at the southeast interior corner and exterior basement stairwell, where interior wall plaster and exterior cement parging has repeatedly failed, been repaired, and continues to deteriorate. [Figures 13 through 15.](#)



Figure 10: View of typical salt efflorescence accumulating on brick and concrete surfaces on the interior of the foundation. Northwest corner of the basement.



Figure 11: Detail of soluble salts weeping through hairline cracks in the poured concrete foundation.



Figure 12: View of southeast wall of the basement showing soluble salts migrating through brick, plaster and paint.

The buildup of efflorescence is a natural phenomenon that occurs when masonry experiences long-term exposure to too-high moisture levels. Water migrating through the masonry whether in liquid or vapor form carries soluble salts within the masonry outward, which crystallize into visible efflorescence. Over a long period of time, and particularly with softer brick associated with buildings much earlier than the Library, this phenomenon will eventually cause brick and some softer types of stone to spall or crumble away. Luckily most of the materials in the Library's construction are much harder and thus the problem has not yet led to structural damage. The only area where extensive and repeated damage was observed was with the wall plaster surfaces associated with the interior basement stairwell.

Figure 13 The plaster, which has high gypsum content typical of the early twentieth century, is extremely hard and dense in comparison to earlier all-lime plasters. This material naturally retains moisture rather than allowing it to migrate through and evaporate. This characteristic makes gypsum plaster extremely prone to failure when exposed to long-term high levels of moisture.

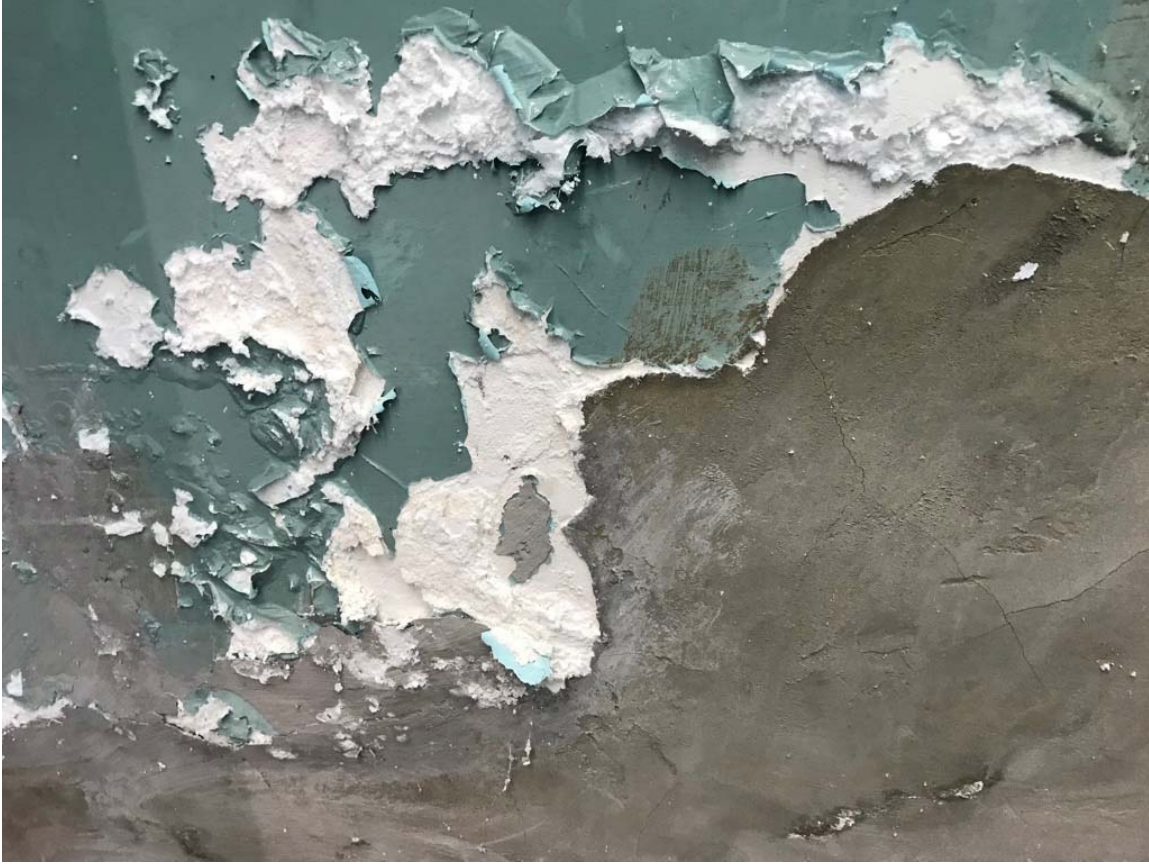


Figure 13: Detail of interior basement stairwell plaster showing failure of the finish coat and paint due to long-term moisture infiltration. The white areas are the original finish coat, where crusty soluble salts are forming on the surface and causing the paint to peel. The dark gray area is a later patch consisting of very hard cement plaster.

In the case of the Library, the condition of the basement is clearly symptomatic of long-term exterior drainage problems. Though the site is on a hillside sloping to the southeast, the immediate site is extremely flat. [Figure 14](#) The building is fitted with built-in eaves gutters leading to decorative copper downspouts. [Figure 15](#) The foundation features foundation splash stones on all sides. [Figure 16](#) However, the drainage system is currently designed only to concentrate runoff from the roof into isolated gutters that empty out onto the ground only inches from the foundation. While the gutters and downspouts appear to be sized adequately for the water load from the roof, the water does not drain away from the foundation, takes too long to dissipate into the ground, and is constantly being absorbed by the foundation masonry.

The existing efflorescence can be easily and inexpensively removed once drainage problems are solved, as discussed below.



Figure 14: overall view of the building from the rear looking northeast, showing very level grade with little opportunity for water to drain away from the building.



Figure 15: Detail of typical copper downspout and gutter leader



Figure 16: detail of basement window showing perimeter splash stones in place.

The exterior basement stairwell is of poor initial design given the harsh New England climate, and is a constant trap for rainwater and melting snow that drain into the basement and are absorbed by surrounding foundation materials at even higher levels than the remaining areas of foundation. [Figures 17, 18](#). The cast concrete steps descending to the basement have many cracks resulting from freeze-thaw cycles and will soon become unstable and a safety hazard. The paged masonry covering the open stairwell walls is cracked, deflected, and in a state of near complete failure.



Figure 17: View of the exterior basement stairwell showing failed wall parging, active water infiltration, and standing water at the foot of the stairs.



Figure 18: View of exterior cast concrete basement stairs showing active accumulations of snow and ice, leading to freeze-thaw conditions. Many cracks in the steps can also be seen.

Treatment Recommendations

1. We recommend designing additional drainage that connects to the existing system but carries water much farther away from the building. In the short term this can be accomplished with inexpensive ground troughs connected to the downspouts and leading water a minimum of 10' away from the foundation. However, an ideal strategy would be to design and install a system of underground drywells that connect to the downspouts via scuppers. This system should be designed by a civil engineer, and should also include a study of the soil density and compaction.

2. All existing gutters should be inspected closely for possible leaks, clogs and deterioration and repaired or replaced accordingly. They should be flushed each spring and fall.
3. Existing efflorescence on interior basement masonry should be removed using a soft brass-bristle brush and the surfaces neutralized with diluted distilled white vinegar. (3:1, water to vinegar). Even after any drainage problems are mitigated expect more efflorescence to continue to appear for two to three years as the masonry dries out. Removing the efflorescence once a year and monitoring its reappearance over time will provide a long-term indication of how well a new or adapted drainage system is performing.
4. Remove all failing interior plaster finish coats and poorly-executed basecoat patches and allow the substrate to dry out.
5. Remove all failing cement parging in the exterior basement stairwell and allow the substrate to dry out.
6. Repair plaster and parging only with traditional high-calcium architectural lime mortar and plaster that has no Portland cement content. Only a qualified expert in traditional masonry and plasters and a qualified architectural conservator should provide specifications and complete these repairs.
7. Remove all biological growth on exterior stone and brick mortar joints with an eco-friendly mildecide. Specifications should be provided by a qualified architectural conservator.
8. Consider constructing a roof structure over the exterior rear entrance and basement stairwell. A well-designed roof that is sympathetic to the architecture of the building will greatly contribute to long-term water management and masonry preservation in the southeast corner of the building.
9. Rake out and repoint all failing mortar joints. This should be done by hand with a hammer and mason's cold chisels, with no pneumatic or rotary grinding tools. Replacement mortar should match the existing original in terms of hardness, texture, workmanship and color.
10. Repair the structural crack in the west chimney. This can be done with an innovative, flexible grout injection system called "VoidSpan", developed by engineer and architectural conservator John Wathne in Salem, Massachusetts for historic masonry stabilization.
11. Install tight-fitting custom-fabricated copper caps on both chimneys.

Additional Resources

1. Jahn Mortar, Cathedral Stone: <https://www.cathedralstone.com>
2. VoidSpan: www.voidspan.com
3. Relevant National Park Service Preservation Briefs

<https://www.nps.gov/tps/how-to-preserve/briefs.htm>

[

- Preservation Brief 1: The Cleaning and Waterproof Coating of Masonry Buildings
- Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings
- Preservation Brief 6: Dangers of Abrasive Cleaning to Historic Buildings
- Preservation Brief 39: Holding the Line: Controlling Unwanted Mortar in Historic Buildings



Image Exterior 01 – North East Elevation (Front).



Image Exterior 02 – North Elevation.



Image Exterior 03 – North West Elevation.



Image Exterior 04 – West Elevation.



Image Exterior 05 – South West Elevation (Rear).



Image Exterior 06 – South Elevation.



Image Exterior 07 – South East Elevation (Main Street).



Image Exterior Detail 01 – Steps at Easterly Front Entry.



Image Exterior Detail 02 – Typical Arch-Top Basement Windows within Cut Granite.



Image Exterior Detail 03 – Typical Exterior Corner – Some staining evident to sandstone.



Image Exterior Detail 04 – Exterior Corner where spalling evident.



Image Exterior Detail 05 – Rear Entry Access Steps.



Image Exterior Detail 06 – Typical Three-part Window.



Image Exterior Detail 07 – Typical Single Window.



Image Exterior Detail 08 – Sandstone Cap with Brick Infill Gable above Entry.



Image Exterior Detail 09 – Hipped Roof with Half Conical Termination at Rear.



Image Exterior Detail 10 – Typical Eave Detail with Metal Infill over Original Drainage System.



Image Exterior Detail 11 – Original Drainage from behind Sandstone Corbeled Overhang.



Image Exterior Detail 12 – Rear Roof with evidence of failure of Drainage Channel causing Staining.



Image Exterior Detail 13 – Typical Brick Chimney with Crack Evident.



Image Exterior Detail 14 – Rear Entry Steps with Minimal Bearing Condition.

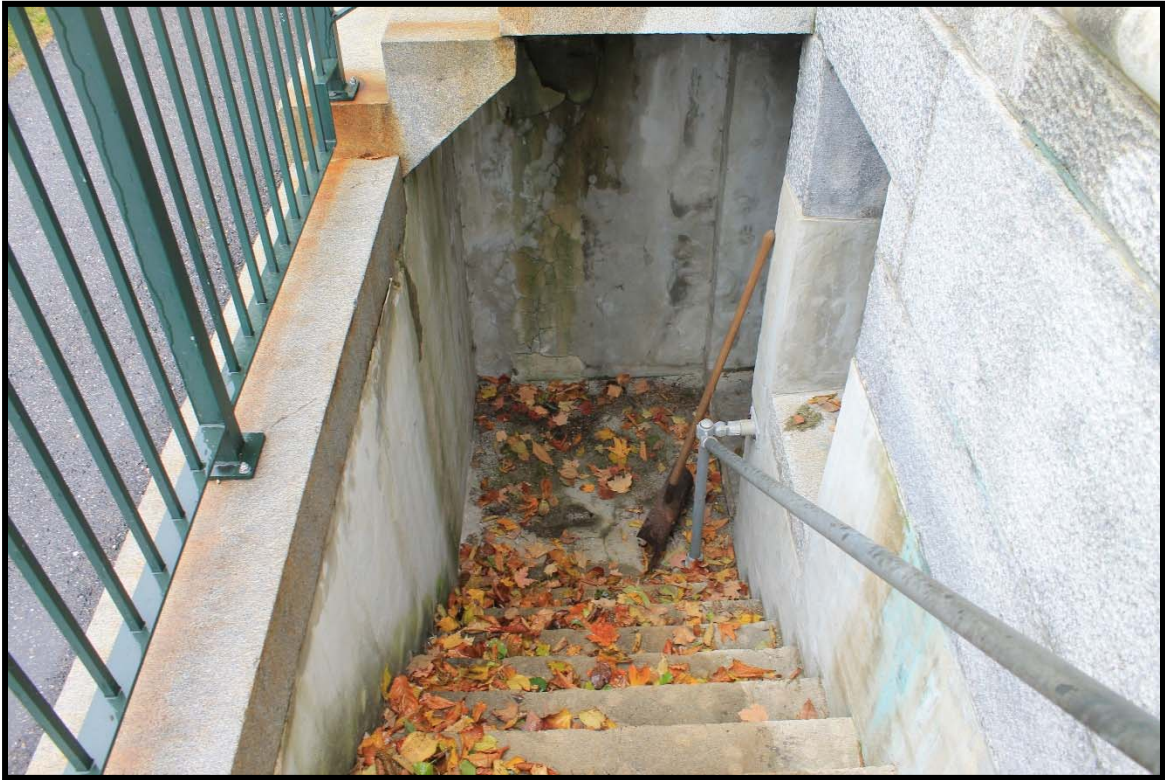


Image Exterior Detail 15 – Basement Exterior Entry.



Image Exterior Detail 16 – Basement Exterior Access Door.



Image Exterior Detail 17 – Roof Condition where original drainage channel covered.



Image Exterior Detail 18 – Gutter no longer attached properly and pitching in wrong direction.



Image Exterior Detail 19 – Typical Condition at Open Valleys.



Image Exterior Detail 20 – Typical Gutter Condition at Semi-Circular Rear.



Image Exterior Detail 21 – Typical Gutter Condition at Semi-Circular Rear.



Image Exterior Detail 22 – Patchwork Evident at Gutter.

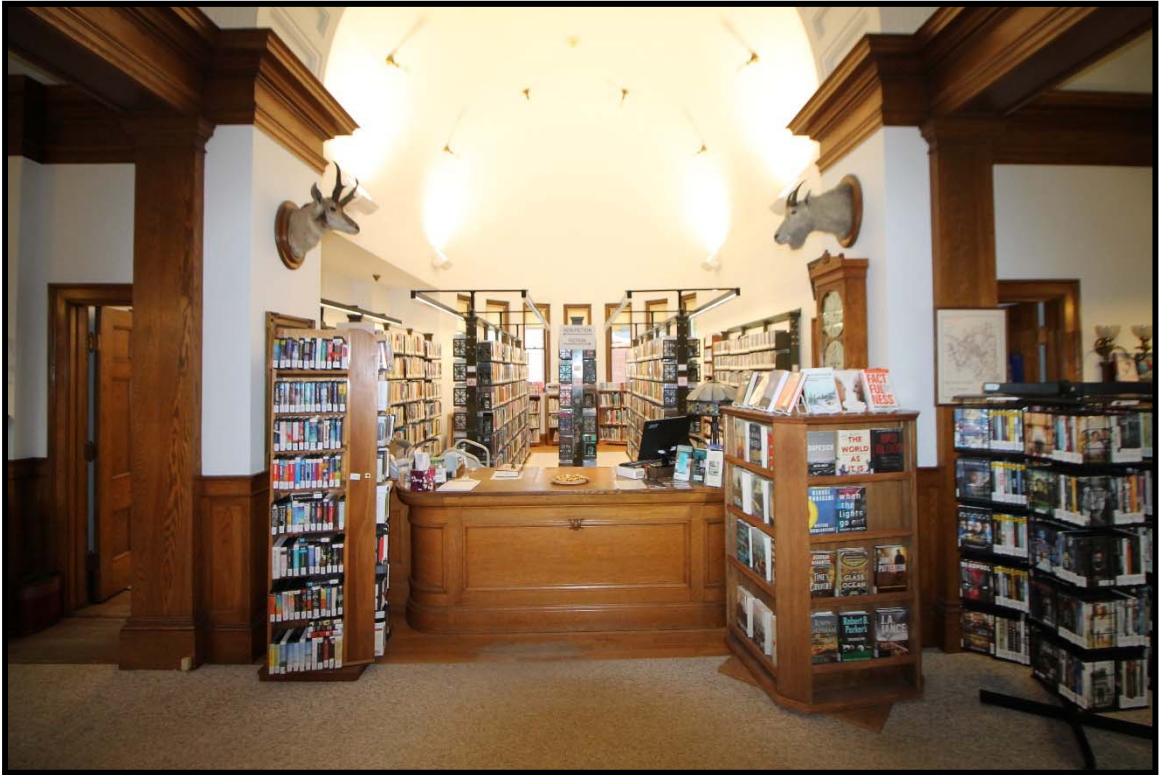


Image Interior 01 – Lobby with Book Racks Beyond.

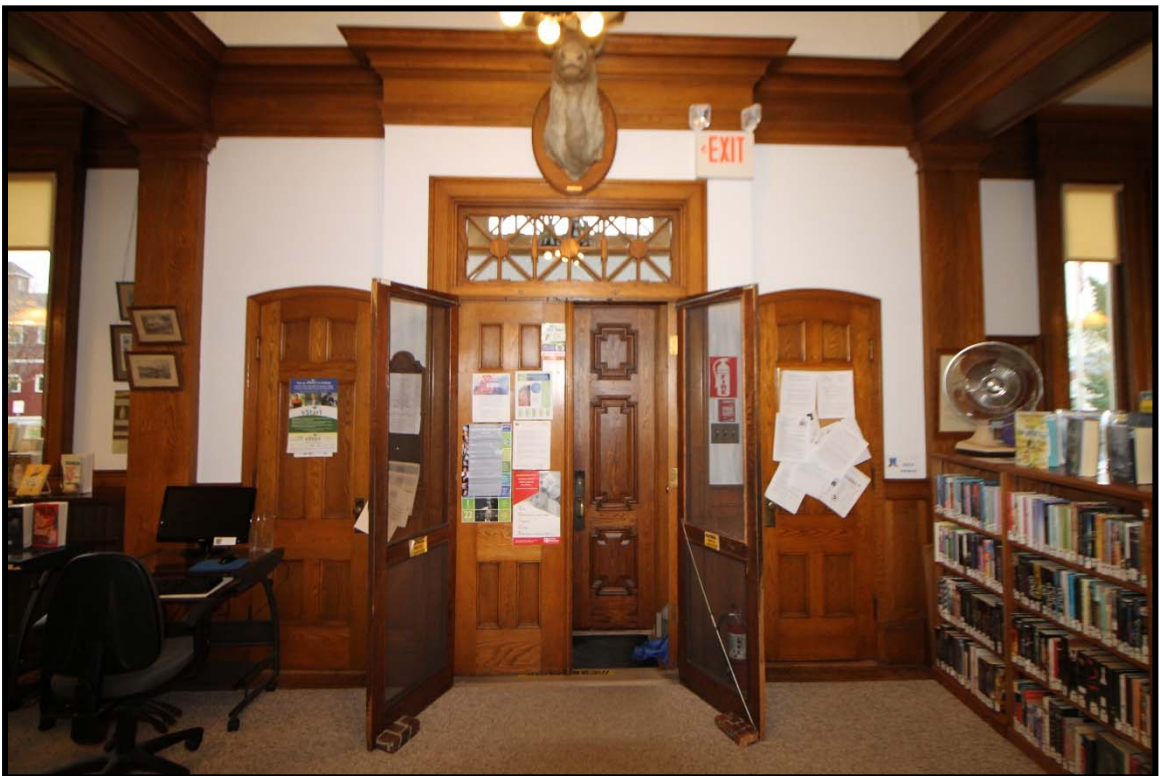


Image Interior 02 – Entry Doors flanked by Closet Doors.



Image Interior 03 – Southern Reading Room with Three-Part Windows.

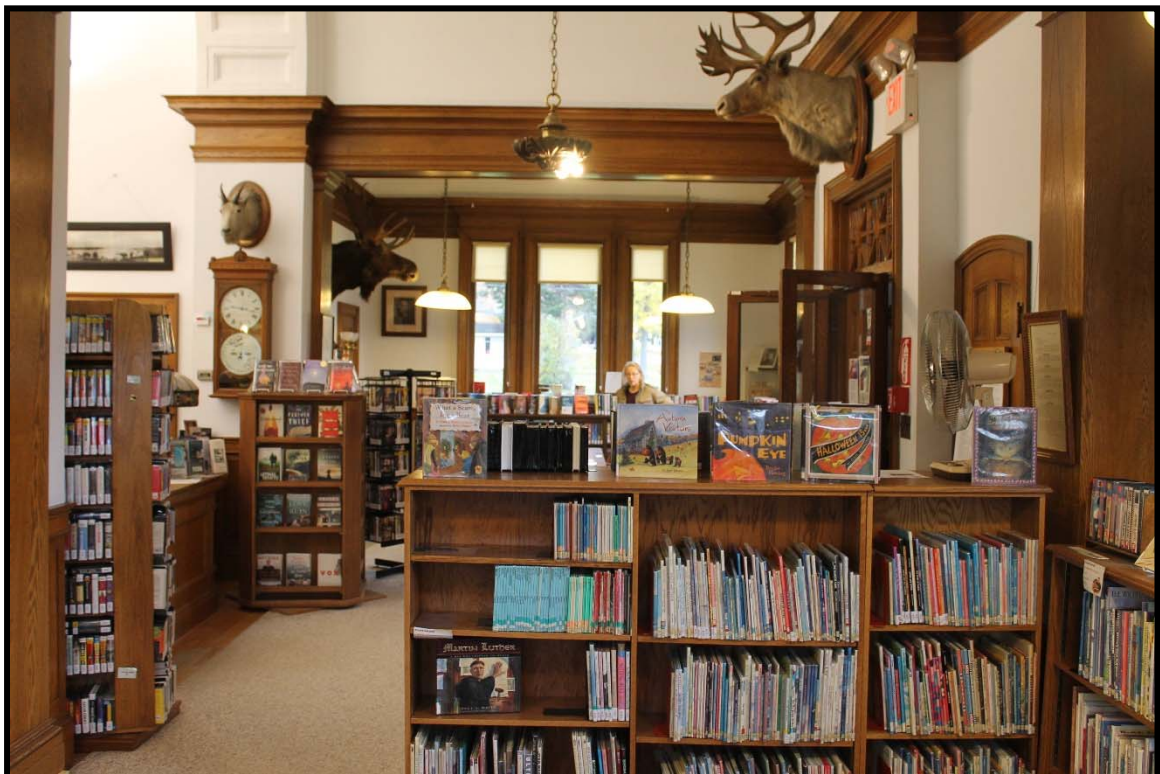


Image Interior 04 – Northern Reading Room with Three-Part Windows.



Image Interior 05 – Typical Fixed Three-Part Window.



Image Interior 06 – Typical Fireplace at Southern Reading Room.



Image Interior 07 – Book Racks with Vaulted Ceiling Above.



Image Interior 08 – Book Racks with Office Door Beyond.



Image Interior 09 – Typical Book Racks with Vaulted Ceiling.



Image Interior 10 – Single Windows to Semi-Circular Rear.



Image Interior 11 – Deterioration of Wall Finish at Semi-Circular Rear.



Image Interior 12 – Access to Meeting Room from Northern Reading Room.



Image Interior 13 – Meeting Room with Safe.

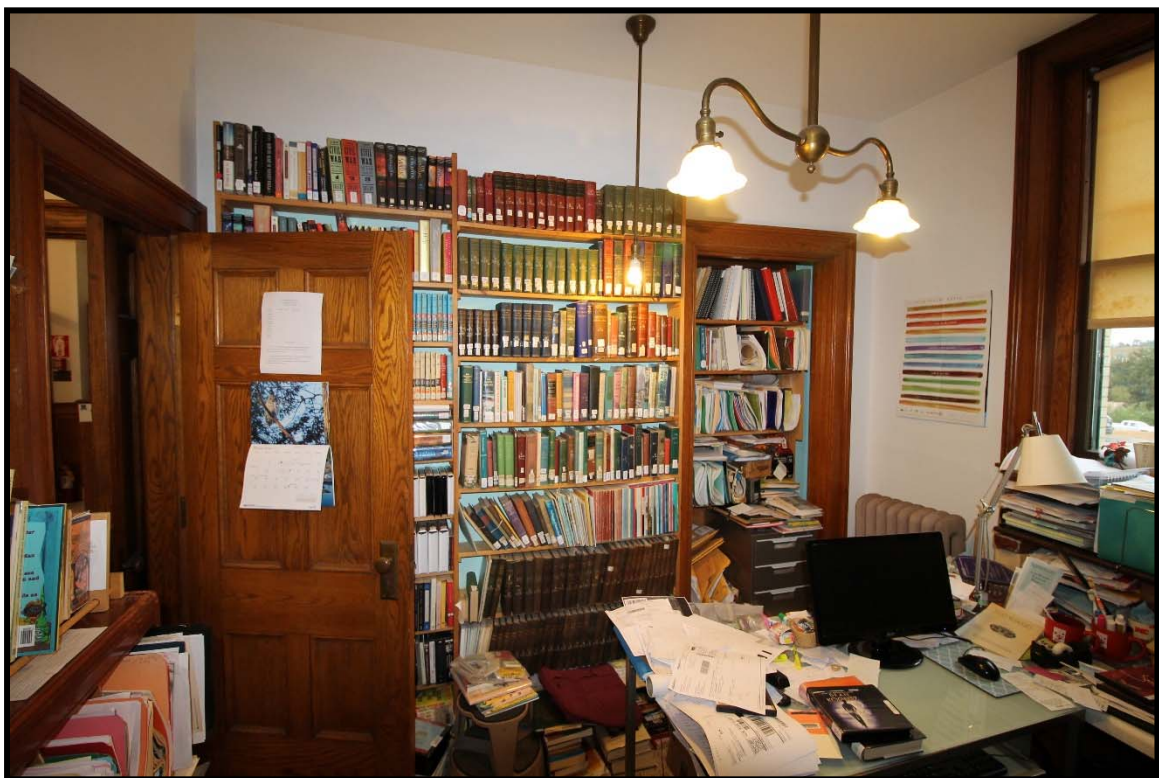


Image Interior 14 – Office.

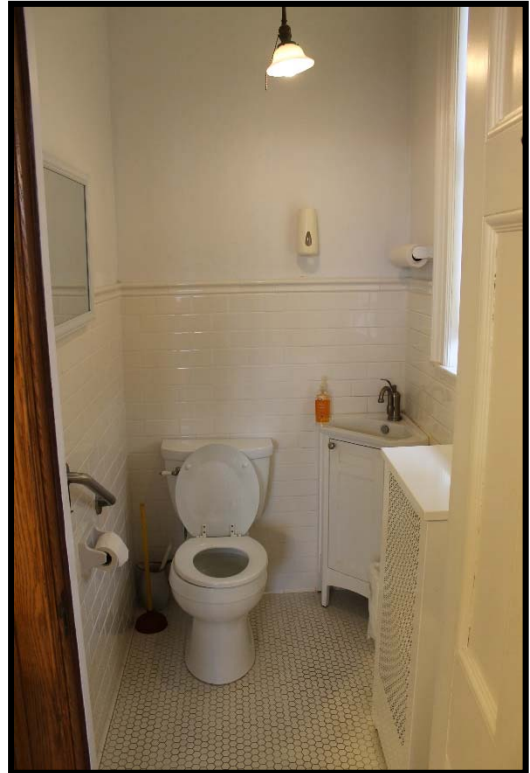


Image Interior 15 – WC adjacent to Northern Reading Room.



Image Interior 16 – Typical Interior Wood Trim Details.

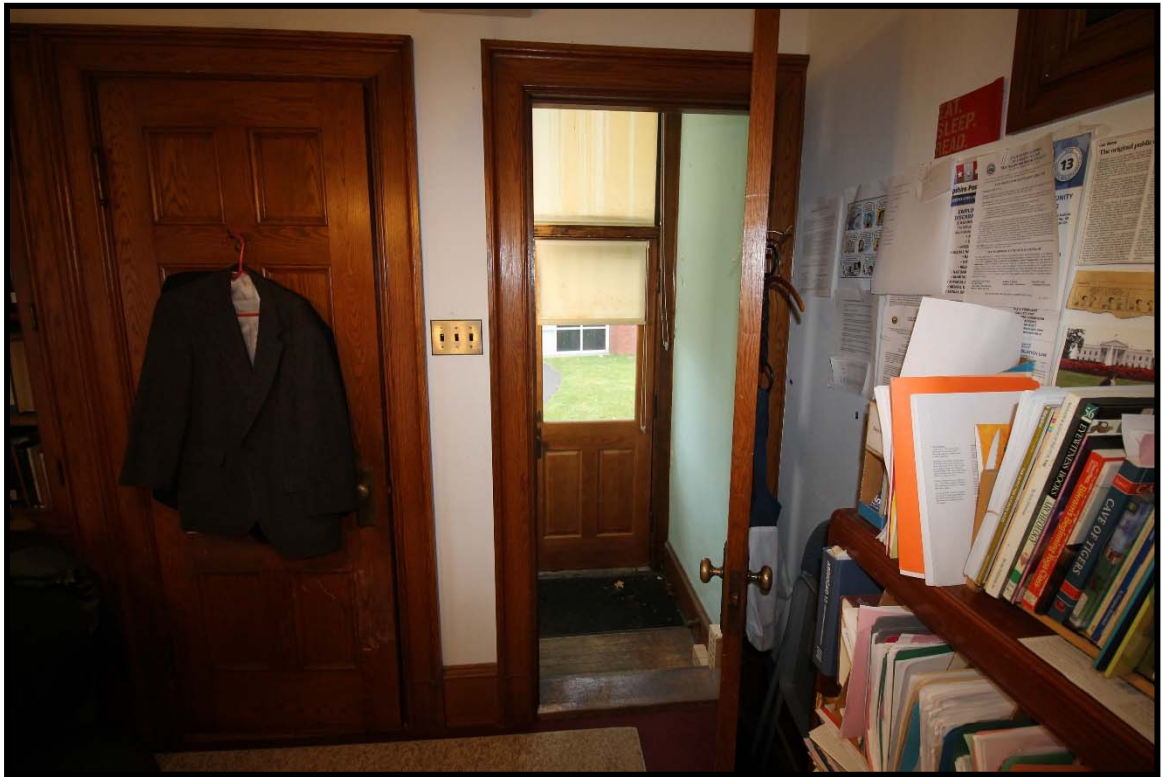


Image Interior 17 – Basement Access from Office.

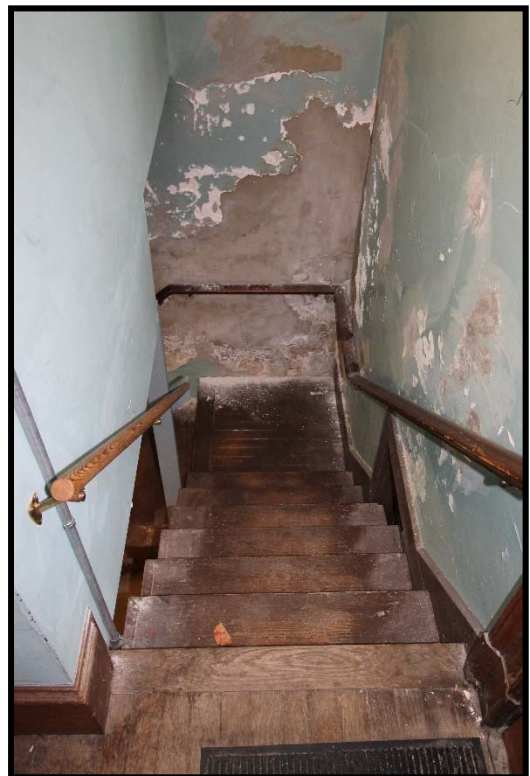


Image Interior 18 – Deterioration of Wall Finishes at Basement Stair.



Image Interior 19 – Deterioration of Wall Finishes at Basement Stair.

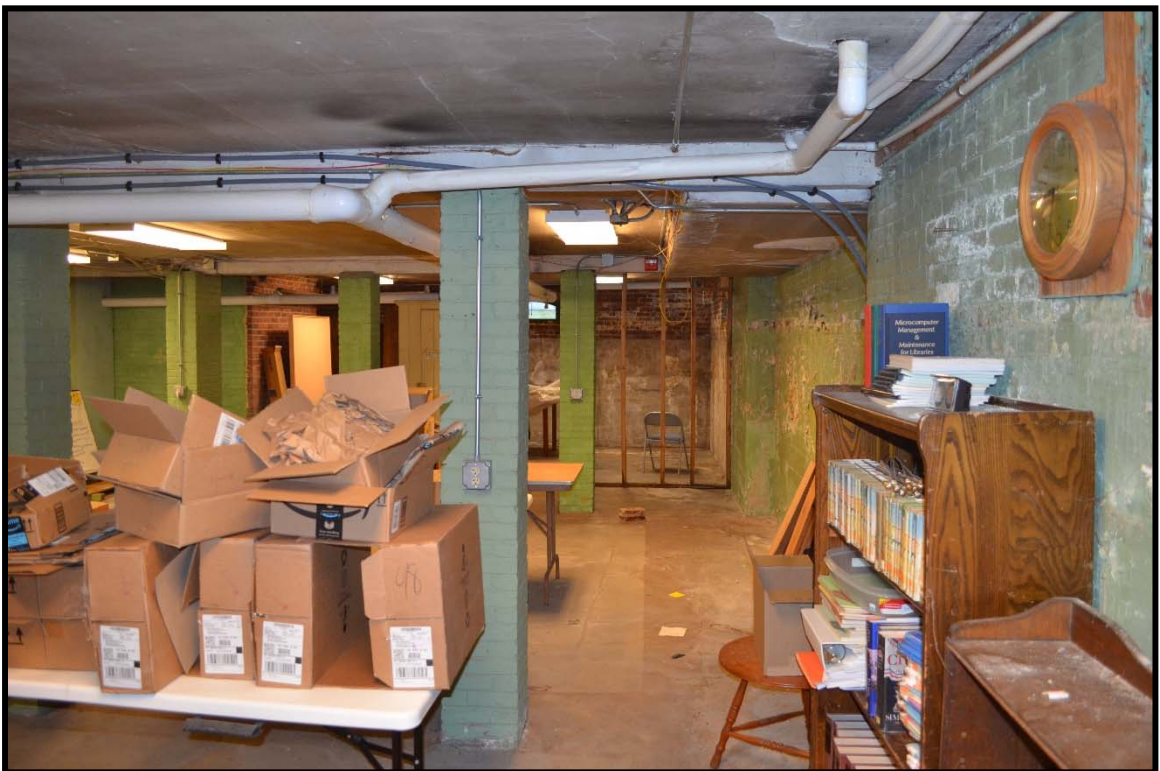


Image Interior 20 – Typical Basement.



Image Interior 21 – Typical Basement with Efflorescence Visible on Masonry.

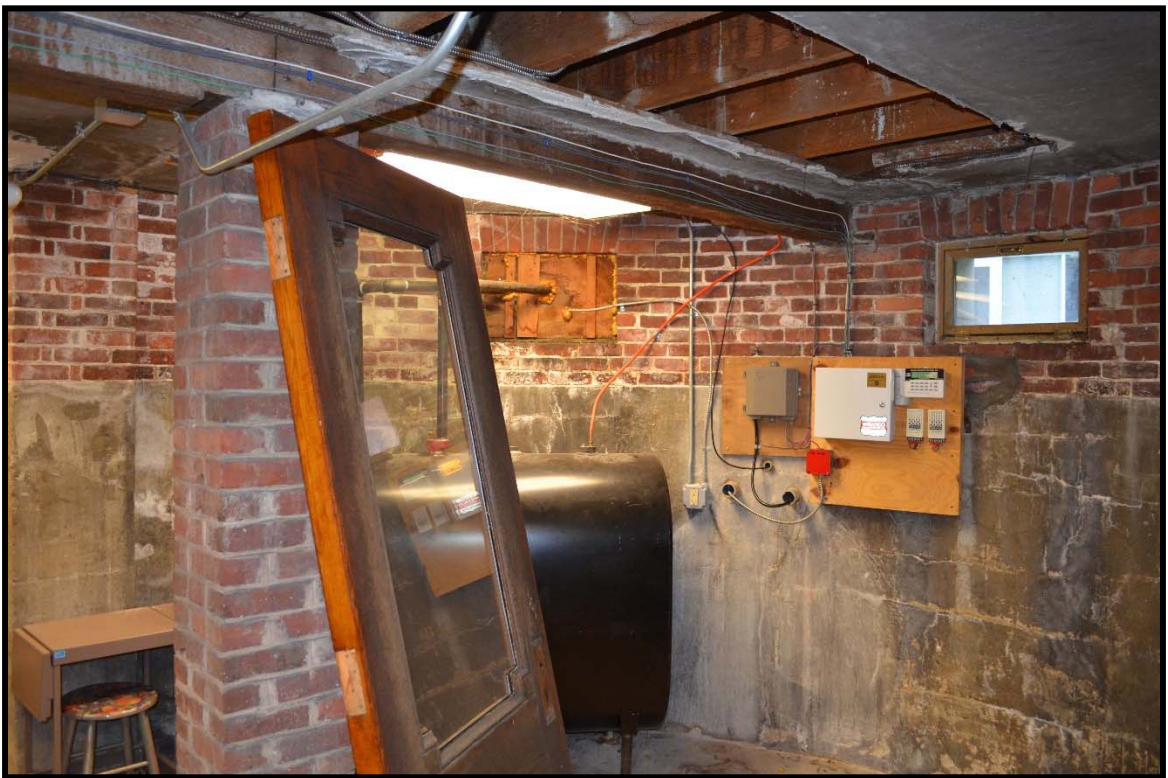


Image Interior 22 – Basement below Semi-Circular Rear.



Image Interior 23 – Safe at Basement Level.



Image Interior 24 – Typical Arch Top Window to Basement.



Image Interior 25 – Sewer Drainage System at Basement.

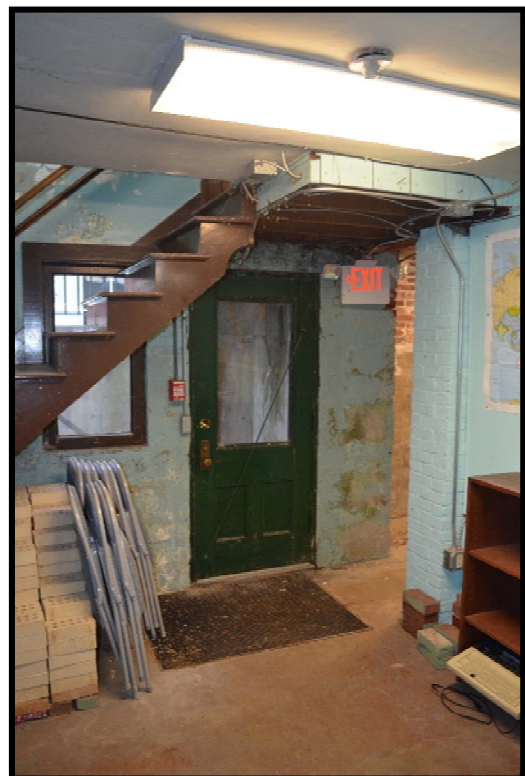


Image Interior 26 – Exterior Door Access at Basement.



Image Interior 27 – Mechanical System in Basement.



Image Interior 28 – Masonry and Wood Roof Framing at Attic.



Image Interior 29 – Masonry and Wood Roof Framing at Attic.



Image Interior 30 – Insulation at Ceiling Line of Attic.

APPENDIX IV
NATIONAL REGISTER OF HISTORIC PLACES INVENTORY – NOMINATION FORM
(produced previously by others, included for reference)

United States Department of the Interior
National Park Service

National Register of Historic Places
Inventory—Nomination Form

For NPS use only
received AUG 9 1983
date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historicCENTRE HARBOR VILLAGE HISTORIC DISTRICT

and/or commonCENTRE HARBOR VILLAGE HISTORIC DISTRICT

2. Location

street & numberMain & Plymouth Streets ,n/a not for publication

city, townCentre Harborn/a vicinity of

stateN.H. code33 countyBelknap code001

3. Classification

Category	Ownership	Status	Present Use
<input checked="" type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input checked="" type="checkbox"/> commercial
<input type="checkbox"/> structure	<input checked="" type="checkbox"/> both	<input type="checkbox"/> work in progress	<input checked="" type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input checked="" type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> no	<input type="checkbox"/> military
			<input checked="" type="checkbox"/> museum
			<input type="checkbox"/> park
			<input checked="" type="checkbox"/> private residence
			<input type="checkbox"/> religious
			<input type="checkbox"/> scientific
			<input type="checkbox"/> transportation
			<input checked="" type="checkbox"/> other: public fountain

4. Owner of Property

nameMultiple (See Continuation Sheet #1)

street & number

city, town _____ vicinity of _____ state

5. Location of Legal Description

courthouse, registry of deeds, etc.Belknap County Courthouse/Registry of Deeds

street & number64 Court Street

city, townLaconia stateNew Hampshire 03246

6. Representation in Existing Surveys

titleCentre Harbor Hist. Resources Survey has this property been determined eligible? ☐ yes ☒ no

date1983 ☐ federal ☐ state ☐ county ☒ local

depository for survey recordsCentre Harbor Historical Society

city, townCentre Harbor stateNew Hampshire

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input checked="" type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	n/a moved date n/a
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

The Centre Harbor Village Historic District is, as the name implies, the historic core of the village of Centre Harbor, located at the head of Lake Winnepesaukee's Centre Harbor Bay. The District is laid out along three streets which meet in a wide intersection, marked by a public fountain. Old Meredith Road, which leads southwest from the intersection, formerly connected the villages of Centre Harbor and Meredith. Plymouth Street, to the northwest, is still an important highway (N.H. Route 25B) leading to Holderness and Plymouth, as is Main Street to the northeast (also part of Route 25B) which leads to Route 25, and thence to Moultonboro and the towns east of Centre Harbor. The northeastern edge of the District is Bean Road, a road historically important to the development of the District, as it links the village with Center Sandwich to the north.

Besides the early 20th century fountain, the Historic District includes nine buildings. Two buildings face Main Street, while the other seven face Plymouth Street, six on the north side of the street and the Nichols Memorial Library on the south. The library is the only 20th century building and the only masonry building in the District. All of the other buildings are 19th century wooden residential and commercial structures. (One of these, however, Kahle House, was substantially enlarged and completely remodeled in the early 20th century.) The buildings on the north side of Plymouth Street stand close to the sidewalk; and five of the six are set closely together, separated only by driveways and alleys. The other buildings in the District have more spacious lots and are set back from the road. Currently, four of the buildings (#1, #2, #4, #5) are vacant; three (#6, #7, #8) are single family homes; one (#3) is used for both offices and apartments, and one (#10) serves as the local public library.

#1 Raines House (Centre Harbor Village Associates, Inc.) - Raines House, erected in the mid 19th century, has served over the years as a guesthouse, a girls' school, a family home, and a college dormitory. The building consists of a two and a half story main block (five bays wide by four bays deep) with, to its rear, a lower and narrower two story wing (eight bays long). The main block is clapboarded, with wide corner pilasters above its cut granite block foundation. The wide box cornice has a deep frieze and returns on the gables. The six over six sash windows have moulded trim, and (save for those on the first story of the street facade) heavy plain entablatures. The gable end, facing the street, is distinguished by a full length, one story wooden porch surrounded by a simple railing and reached by steps on the south end. The porch's almost flat roof and its entablature with dentiled cornice are supported by four chamfered square posts with capitols and bases. Projecting onto the porch from the central bay is a shallow clapboarded vestibule with chamfered cornerboards and double-leaf paneled doors ornamented by arched windows. On each side of the vestibule are two windows (without entablatures). The street facade has five windows on the second story and two in the gables, while the sides have four windows on each story. The slopes of the gable roof are both broken by a tall brick chimney and two clapboarded hip roofed dormers. The wing, like the main block, is clapboarded with corner pilasters. But the pilasters are narrower, as is the frieze of the wing's lateral box cornice. (The gable eaves are ornamented by a shallow moulded cornice with returns, but no frieze.) The sash windows also have simpler trim, the nine over six windows of the first story boasting only moulded lintels, while the three over three windows of the kneewall second story have plain trim. On each long side of the wing is a paneled door with a four pane window, flanked by wide pilasters supporting a heavy although simple entablature. The southwesterly door is sheltered by a modern gable hood supported by plain braces. Also on the southwesterly side is another entry, a paneled door with a moulded lintel. On the northeasterly slope of the wing's gable roof are found four clapboarded gable roofed dormers. Save for these dormers and the hood on the wing's southwesterly door, the building's exterior has probably not changed since the 19th century.

-continued

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400–1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500–1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600–1699	<input checked="" type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/
<input type="checkbox"/> 1700–1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian
<input checked="" type="checkbox"/> 1800–1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1900–	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates c. 1800 - c. 1922 Builder/Architect (see individual descriptions)

Statement of Significance (in one paragraph)

The Centre Harbor Village Historic District is significant for its concentration of architecturally interesting buildings of the 19th and early 20th centuries.

The establishment of the village of Centre Harbor was not planned, but was virtually dictated by the geography of the Lakes Region. Lake Winnepesaukee and Big Squam Lake, New Hampshire's two largest lakes, almost divide the region in two. Because of the mountainous terrain north and south of the lakes, the most practical route for east-west travel within the region is through the two mile wide gap between the two lakes. Route selection is further limited by a small mountain, Red Hill, and another water body, Lake Kanasatka, just east of the gap, which force any road to the south side of the gap, skirting the head of Centre Harbor Bay. As a result, there developed in the late 18th century at the head of the Bay, an intersection of four important roads--a road west, skirting the south shore of Squam Lake, to the pemigewasset Valley towns of Holderness and Plymouth (Plymouth Street), a road southwest to Meredith and the towns of the Winnepesaukee and Merrimack River valleys (Old Meredith Road), a road northeast to Moultonboro and the towns east of the lakes (Main Street and Route 25), and a road north between Squam Lake and Red Hill to the village of Center Sandwich (Bean Road). Around this important crossroads, there grew up a small hamlet, which, by 1837, contained some twenty houses, three taverns, three stores, two blacksmith shops, a cidermill, a schoolhouse and a Congregational Church.

Another factor in the growth of the village was Lake Winnepesaukee as sailboats, horseboats, and, later, steamboats were important means of transportation in the Lakes Region in the 18th and 19th centuries. Centre Harbor, with its broad bay, was a major lake port. After two railroad lines were built to the Lake, reaching Lakeport in 1848 and Alton Bay in 1849, regular steamboat service was established on the Lake. Until railroads were built directly to the White Mountains, the major route for tourists was to the Lake by railroad, then by steamboat to Centre Harbor, where the travelers boarded stages for Conway and the mountains. Lake Winnepesaukee itself became an important destination for vacationers. And Centre Harbor village entered a period of prosperity based largely on the tourist trade. Major hotels were built in the village--the old Senter House which stood on the site of the Library (#10), the Colonial Hotel and the Moulton House, both of which stood just outside the District on the other sides of Old Meredith Road and Plymouth Street. Summer homes, many the large estates of the wealthy, were built on the lakeshore and hill-sides near the village.

Most of the buildings in the Historic District date, in their present forms, from this prosperous period between the establishment of the steamboat lines and World War I. Only one building, the Locust Cottage (#6) is a reminder of the earlier hamlet, as it remains, despite a later porch, an attractive early 19th century vernacular house. While the period of construction is not known for Raines House (#1), its style is that of the late Greek Revival with some Victorian details in the entry and porch. So, this pleasing building may well date from the 1850's. The other houses are all representative of the Victorian period. The Dr. Morrill House (#7) is a rather modest Victorian vernacular building, and the other two are well-preserved buildings of obvious architectural merit. The Coe House (#2),

-continued

9. Major Bibliographical References

(See Continuation Sheet #11)

10. Geographical Data

Acreage of nominated property 15

Quadrangle name Winnipesaukee, NH

Quadrangle scale 1:62500

UTM References

Zone	Easting	Northing
A 1 9	3 0 1 7 4 5	4 8 4 1 3 5 0
B 1 9	3 0 1 5 3 0	4 8 4 1 2 2 5
C 1 9	3 0 1 4 9 0	4 8 4 1 2 1 0
D 1 9	3 0 1 3 6 0	4 8 4 1 3 5 0
E 1 9	3 0 1 4 0 0	4 8 4 1 4 2 5
F 1 9	3 0 1 5 0 0	4 8 4 1 4 5 0
G 1 9	3 0 1 6 5 0	4 8 4 1 4 5 0
H		

Verbal boundary description and justification

(See Continuation Sheet #12)

List all states and counties for properties overlapping state or county boundaries

state	code	county	code
n/a			
n/a			

11. Form Prepared By

name/title	David L. Ruell		
organization	Lakes Region Planning Commission	date	February 27, 1983
street & number	Main Street	telephone	279-8171
city or town	Meredith	state	New Hampshire 03253

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

☐ national ☐ state ☒ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature

Commissioner, Dept. of Resources & Economic Development

title NH State Historic Preservation Officer

date JUL 29 1983

For NPS use only

I hereby certify that this property is included in the National Register

for Melores Byer
Keeper of the National Register

Entered in the
National Register

date 9/8/83

Attest:

Chief of Registration

date

**United States Department of the Interior
National Park Service**

National Register of Historic Places Inventory—Nomination Form

For NPS use only

received

date entered**Continuation sheet #1 - OWNER OF PROPERTY**

Item number 4

Page 1

#1, #2 - Centre Harbor Village Associates, Inc., Box #189, One Mill Plaza, Laconia, NH 03246

#3 - James & Helen Ferrante, RFD, Centre Harbor, NH .03226

#4, #5 - Centre Harbor Village Associates, Inc., Box #189, One Mill Plaza, Laconia, NH 03246

#6 - Douglass and Aleta Anderson, Plymouth Street, Centre Harbor, NH 03226

#7 - Richard & Priscilla Lavalley, Centre Harbor, NH 03226

#8 - Donald & Mary Ann Keay, Boyce Farm Road, Lincoln, MA 01773

#9, #10 - Town of Centre Harbor, P.O. Box #140, Centre Harbor, NH 03226

United States Department of the Interior
National Park Service

National Register of Historic Places
Inventory—Nomination Form

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received

date entered

Continuation sheet #2 - DESCRIPTION

Item number 7

Page 2

To the rear of Raines House is a simple barn (#1A), rectangular in plan with a gable roof. Two facades are clapboarded while the other two are shingled. They are broken by a few small windows, louvers in the gables, a large sliding door, and two plain doors of vertical boarding. The grounds around the Raines House are still grassed, but to its north and east are large gravel parking lots. Along Bean Road and the property lines to the northwest and southwest are rows of trees. The boundary between Raines House and Coe House (#2) is also marked by a stone wall.

#2 Coe House (Centre Harbor Village Associates, Inc.) - This house was originally built for John Coe in 1820, but it was enlarged and extensively remodeled in a more fashionable early Victorian style by the Coes in 1850. Some exterior changes (added dormers, etc.) were made to the wings, but not the main house, during the 1960's, when the building was part of the Belknap College campus. Coe House has the most complex plan of any building in the District. The two and a half story L-shaped house has a one-story projection in the angle of the ell. To the southwest of the ell is a one and a half story wing, which is in turn connected to the two and a half story barn by a two-story wing. The barn itself has two wings. And four porches add to the complexity of the building. The house and its wings are all clapboarded with gable roofs, but ornament, dormers, porches, etc., do vary the appearance of the different sections.

As noted, the house itself consists of a two and a half story main block with an ell of the same height and ornamentation to the rear. In the angle to the northwest of the main block and to the northeast of the ell is a shallow one story hip roofed projection (with an inset porch) which also received the same ornament as the main house. The walls, which sit on granite block foundations, have sillboards and corner pilasters (paneled on the more visible front corners, but plain in the rear.) All but one of the sash windows have moulded trim, while some have louvred shutters and entablatures as well. The wide box cornice has mouldings, a frieze, sawn brackets and returns on the gables. (The one story projection has a simpler box cornice without brackets.) The street facade is five bays wide with a three bay wide one story porch in the center. The porch's moulded box cornice is supported by four square posts, each with chamfered corners, moulded bases and capitols, and four elaborate sawn brackets with knoblike ornament. The central paneled door is flanked by full sidelights, all surrounded by a shouldered architrave; its lintel is embellished by four small wreaths and a medallion of a woman's head framed by flowers. On each side of the entry are two full length six over nine windows with moulded trim, shutters and entablatures. The second story has a central glass door with wooden frame opening onto the porch roof, flanked on each side by two six over six sash windows, all with moulded trim and louvred shutters. In the center of the roof above the street facade and between the two tall brick chimneys is a hexagonal lantern. The lantern has sides of flush boarding, four over four sash windows in each side, and a bracketed box cornice. The six over six sash windows of the southwesterly facade all have moulded trim and shutters. The first story windows and the main block's second story windows have entablatures as well. Also on the southwesterly facade is a side entry--a paneled door with transom window, and flanking pilasters, sheltered by a small porch with two posts and a box cornice like those of the front veranda. The northeasterly end of the main block and the projection have two full length windows with moulded trim and entablatures on the first story, and a single six over six sash window with moulded trim on each story above. The rear facades of the house are simpler, their nine over six and six over six windows having moulded trim but no entablatures. The most interesting feature of these rear facades is the inset porch in the

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one story projection, with its two pairs of posts with latticework panels. A pair of glass doors with wooden frames and a paneled door open onto the inset porch.

Perpendicular to the ell on the southwest is a one and a half story wing. Its street facade received the most decoration--a box cornice with mouldings, six over six sash windows with shutters and moulded trim, double paneled doors with a hood mould, and two rectangular panels with hood moulds above the windows. (A large multi-pane window seems to be a modern addition.) The two other facades have simpler box cornices and plain trim around their sash windows and the single door found on each facade. The three gable dormers on the front slope of the roof and the wide shed dormer on the rear slope are recent additions.

To the northwest of this wing and connecting it to the barn is another short wing, with plain trim and a plain box cornice. The second story with its low pitched gable was added during the Belknap College years. On the southwest side of this connecting wing is an open one-story porch with a dirt floor and a shed roof supported by square wooden posts. The large attached barn has plain trim, close eaves and verges, louvers in the gables and a few sash windows. Besides four single doors, there is a main entry in the center of the barn's southwest facade--large double doors, reached by a wooden ramp. The main entry is flanked by the barn's two wings. The smaller one-story wing on the east (added by the College) is sheltered by the same roof as the open porch of the connecting wing. The larger one and a half story wing to the west, which also has a shed roof, is partially open on the first floor. The trim of these two wings is as plain as that of the barn. The recent changes to the wings have not seriously compromised the integrity of Coe House or its status as the best 19th century building in the District.

An attractive wooden fence with turned balusters and square posts with caps separates the front lawn of Coe House from the street. Ornamental trees and shrubs surround the house. To the northeast of the house is a modern asphalt basketball court, and in the rear of the lot is a large open field bordered by trees.

#3 Morse & Stanley Block (James and Helen Ferrante) - By 1837, a one-story store with living quarters stood on the corner of Plymouth and Main Streets. This building was enlarged and remodeled by local builder James P. Leighton (c. 1856) for Rufus Fellows, who retired in 1886, leaving his business to his son-in-laws, Frank H. Morse and Frank B. Stanley. It appears today as a late 19th century building with some 20th century modifications, notably the large store windows on the first floor. The gable roofed two and a half story block is T-shaped in plan--a seven bay wide by two bay deep main block facing Plymouth Street with a four bay deep wing to the rear. The northeasterly angle of the T is filled by a one-story shed roofed wing. A taller wing perpendicular to the rear wing and parallel to the main block is found to the northwest. The narrow space between this northwest wing and the main block is partially filled by a shallow one-story wing. All sections of the building are clapboarded and have cornerboards. The main block and its corresponding rear wing share the same ornament, such as the box cornice with mouldings, frieze, and, save in the rear gable, sawn brackets. The cornice has returns in the gables, including the cross gable above the central three bays of the main block's Plymouth Street facade. The sash windows all have lintels with mouldings. Most are two over two sash windows, although the windows in the gables and on the second floor of the rear wing all have six over six sash. The Plymouth Street facade is enlivened by a central three-bay wide wooden porch. Paneled

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wooden posts with bases and capitols support a box cornice with mouldings and sawn brackets. The porch's hip roof is interrupted by a small gable, ornamented by a sunburst in the pediment, over the central bay. A glass door with wooden frame and moulded lintel opens onto the porch between two rectangular wooden framed bay windows. Attached to the west end of the main porch is a smaller shed roofed porch sheltering a side door, also with a moulded lintel. The major alterations to the main block are in the fenestration. The original sash windows of the first story of the Plymouth Street facade have been replaced by pairs of larger wooden framed plate glass display windows to the east and west of the porches. The Main Street facade once had a central doorway with a single sash window on each side. The entry--a glass door with wooden frame, reached by concrete and stone steps--is now located in the bay nearest the street corner; the rest of the first story is occupied by another pair of plate glass display windows. On the second story, one window in the Plymouth Street facade has been boarded in, and one sash window on the Main Street facade has been replaced by a three-part window. The one-story wing to the northeast also has on its Main Street facade, a pair of wooden-framed plate glass windows as well as two doors and two sash windows. A porch sheltered by the same shed roof as the wing runs the full length of the wing's northeast facade. The northwest wing has an assymmetrical gable roof, as it is one-story high to the northeast and two stories high to the southwest. Its fenestration is a mixture of older and modern sash windows, all with plain trim. The short flat-roofed one-story section that partially fills the gap between the northwest wing and main block has only one window, of six over six sash. Despite the changes that have been made to the building, particularly to its windows, the Morse & Stanley Block still retains its basic late 19th century character.

#4 Kahle House (Centre Harbor Village Associates, Inc.) - By 1837, there was a one-story store on this site. It is still unclear whether the local builder James P. Leighton replaced the store building with a new building in the 1880's or simply enlarged the earlier structure by adding another story, a public hall which gave the building the name of Indenpendence Hall. In any event, the building received its present appearance after 1922, when Albert Bennett, owner of the Garnet Inn (#5) next door, purchased Independence Hall. The building was then enlarged from a two-story gable-roofed store and public hall to a four-story flat-roofed hotel connected to the original Inn by a common wooden veranda on the Plymouth Street frontage. Originally, the porch directly in front of Kahle House was two stories high with an open deck at the third floor level. But, the upper levels have been removed, leaving a flat-roofed, one-story porch with a slat base and four paneled pillars supporting a box cornice. The porch's wooden floor and plain wooden railing are only found in front of the building. But the porch roof, supported by more paneled pillars, is continued to the northwest over the driveway between the two buildings to the porch of Dane House (#5). The building itself is rectangular in plan, clapboarded with corner boards topped by capitols. The projecting box cornice has a deep frieze and a course of dentils. Above the cornice, on the public front and sides of the building, is a low wooden parapet topped by a moulded cornice. The parapet is stepped up at the corners of the building and in the center of each side. Moulded panels appear in these higher sections, save in the raised section in the center of the street facade, which, however, did receive two steps. The windows are virtually all two over two sash windows with moulded lintels. The exceptions are the two triple windows on the first floor of the street facade which have fixed plate glass windows. In the central bay between them is a door with a multipane window and a moulded lintel. A similar door, opening onto the porch roof, is found on the second story. Otherwise, the five bays of the upper stories are filled with sash windows. The long sides

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of the building are marked by a projecting cornice above the first story level. The first story has, on the northwest side, six windows, and, on the southeast side, four windows and a paneled door. The upper stories have eight windows on each long side. The rear facade, like the street facade, is five bays wide. A paneled door with a window is the only rear entry, although there is a bulkhead door in a small concrete block flat roofed extension of the basement to the rear. Save for the upper levels of the porch, Kahle House appears today as it has since its remodeling in the 1920's.

#5 Dane House (Centre Harbor Village Associates, Inc.) - Dane House was probably erected in the early 19th century, as it is known to have been standing in 1832. Originally a family house, it was used in the 19th century as a summer hotel, known as the Garnet Inn. About 1922, the Inn was enlarged. The building received a new dining room wing on the southeast and was connected by a new porch to its remodeled neighbor (#4), which became the Garnet Inn Annex. Presently, Dane House includes the following, a two and a half story gable roofed main block; a two-story main wing to the rear of the main block with a lower pitched gable roof, a small shed roofed addition with a porch on the west, and a one-story shed roofed addition on its roof, a two and a half story gable roofed rear wing to the rear of the main wing; a narrow one-story shed roofed dining room wing on the southeast side of the main block and the main wing; and finally, a one-story wooden porch on the street front of the main block and the dining room wing. All of these sections are clapboarded with corner-boards and sash windows. The main block, whose gable end faces the street, has a plain box cornice with a frieze and returns on the gable. Most of its windows have moulded lintels and virtually all have six over six sash. The exceptions are the five six over one sash windows on the first story of the street facade. In the center bay are found double multi-pane glass doors with wooden frames. A single multipane glass door with wooden frame is found on the second story, opening onto the porch roof. It is flanked on each side by two windows and three more windows appear in the gable. Four gable roofed dormers with six over six sash windows are found on each slope of the roof. The main wing has a plain cornice with a sloping soffit and a frieze. Its six over six and two over two sash windows all have plain trim. Projecting to the northwest of the main wing is a shallow one-story shed roofed addition with an entry porch facing the street. The porch, which has a plain wooden railing and turned posts with brackets, shelters a paneled door with a window. Above the wing and attached to the main block is a small shed roofed addition with a single window. The eaves of the rear wing have exposed rafters with a fascia board. Plain trim is found around the rear wing's six over six sash windows, as well as the two plain basement doors and the paneled door with multipane window on the main level. The one-story dining room wing has a box cornice with mouldings and frieze. Its three facades are clapboarded below with an almost continuous range of six over six and six over one sash windows above, broken only by a single door with multipane window, which opens onto the porch. The street-front porch has the same features as that of Kahle House--a slat base, paneled pillars, a box cornice and simple wooden railings. Originally, the porch also had similar wooden railings with paneled square posts topped by caps on its roof. But this railing has been removed save for one section that still survives on the porch roof between the two buildings. But for this minor change, the Dane House, like the Kahle House, appears today as it did in the 1920's.

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#6 Locust Cottage (Douglas and Aleta Anderson) - Built about 1800 for David Drake, this house later served as a summer tourist home, called The Locust Cottage. The two-story gable roofed house has a one-story porch on the street facade, a one and a half to a two and a half story gable-roofed ell, and, on its rear, a shallow one-story shed roofed addition. All three sections are clapboarded with cornerboards. The house itself has a box cornice with mouldings, frieze, and returns on the gables. Its windows have two over two sash, louvred shutters, and, save for the second story windows on the street front, moulded lintels. In the center of the five-bay street facade is a paneled door with windows and plain trim. The veranda which stretches the full length of the facade has a low lattice-work base, a simple wooden railing with square capped posts flanking the central entry, and four tapering square posts with "capitals" supporting the hip roof with its exposed rafters. The southeasterly and northwesterly side facades have single windows in each story, as well as a door on the southeasterly facade. To the rear and towards the east is the shallow shed roofed addition, which is only one bay wide and two bays deep. With plain cornerboards, close eaves and verges, it is somewhat simpler than the main house, but the single window on the southeasterly facade does have a moulded lintel and louvred shutters like the main block's windows. However, the two windows on the rear facade have plain trim, and one is a modern single pane window. To the west of the addition is the ell which is one and a half stories high towards the front, but, because of the fall of the land, two and a half stories high in the rear. Its trim is simple, close eaves, close verges and plain trim around all openings, save for a single window on the northwesterly side and the door on the main level of the southeasterly facade, which have moulded lintels. The door also has a shed roofed hood. Three more plain doors are found in the lower level to the rear. On each slope of the ell's roof are two shed roofed dormers. The only major changes that have been made to the ell are the new vertical board siding on the northeasterly gable wall, and the modern open wooden deck with plain railing added to the east of the ell. There are not visible to the public. So, but for the front door, the two over two sash windows and the veranda (all probably late 19th century additions), the building appears today as it did when built--an attractive early 19th century vernacular house.

Also on the property is a small one-story gable roofed garage (#6A), with board and batten siding and a pair of hinged vertical boarding doors facing the driveway. Trees and shrubs surround the house and its backyard.

#7 Dr. Morrill House (Richard and Priscilla Lavallee) - Probably built around 1860, this house was for many years the home of local physician Dr. Leonard B. Morrill. The one and a half story gable-roofed main block has plain box cornices on the sides and rear, but the gable end facing the street is adorned with a scalloped bargeboard. The street facade has a paneled door with two tall windows in the center, flanked by two sash windows on each side. In the gable above are two more windows, which, like the first story windows below and on the side facades, have moulded trim. But the gable windows have two over two sash, while the first story windows all have six over six sash. The main feature of the street facade is the three bay wide Victorian porch which has turned posts with brackets, plain wooden railings, a decorative valance, box cornice and metal covered hip roof. To the rear is a one and a half story gable roofed ell, which also has a plain box cornice, and six over six sash windows with moulded trim. On the northeasterly gable end of the ell is a single multipane glass door with wooden frame. Stretching the full length of the southeasterly side of the ell, is a one-story shed roofed porch, enclosed by multipane windows and also featuring a single multipane glass door with wooden frame. Originally, the house

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was clapboarded with cornerboards, but it is now sheathed in an asbestos siding that partially obscures the qualities of the building.

To the rear of the house is a one-story garage (#7A) with a low pyramidal roof. Clapboarded with cornerboards, the garage has a box cornice with mouldings and frieze, two stalls with vertical boarding doors on the driveway facade, and two six over six sash windows with plain trim on each of the other three facades. Shrubs and a single tree are found along the street front of the house, while trees line the side and rear property lines.

#8 Page House (Donald and Mary Ann Keay) - This wooden house is believed to have been built by Dr. John C. Page, who owned this property from 1852 until his death in 1879. The two and a half story main block and one and a half story ell are both clapboarded with paneled corner pilasters. They also share the same wide box cornice with mouldings, deep moulded frieze, and returns on the gables. Doors and windows all have the same shaped and incised lintel. The street facade of the main block is three bays wide with a central entry--double leaf paneled doors with arched windows, sheltered by a wide entry porch. The heavy entablature with moulding and the low hip roof of the porch are supported by square chamfered pillars, clustered in groups of three at the outside corners and echoed by pilasters on the wall. The windows flanking the entry and occupying the three bays of the upper story are all double one over one sash windows sharing the same shaped, incised lintels and folding louvred shutters. Two over two sash windows, with louvred shutters and similar lintels, occupy the four bays of the gable facades (northwest and southeast), as well as the exposed rear facade and the facades of the ell. The ell, gable roofed like the main block, has a single gabled dormer on the southeast, as well as two flanking hip roofed porches. The southeasterly porch, a veranda which overlaps the main block as well as the ell, has a base of latticework panels, plain wooden railings, and the same pillars and entablature as the main entry porch. The porch on the northwesterly side is smaller and plainer, with a latticework base, wooden rail, a single tapered and chamfered square post, and exposed rafters with a fascia board. The ell's doors onto the porches correspond--a paneled door with two arched windows and a shaped lintel on the southeasterly porch, a simpler paneled door with plain trim on the northwesterly porch. Attached to the rear of the ell (although placed to the west, not directly behind the ell) is a two and a half story gable roofed rear wing. Clapboarded with plain cornerboards, the rear wing has a plain box cornice with returns on the gables, and plain trim around its windows which are mostly nine over six sash windows. Plain trim also surrounds its two doors, the plain door in its northwesterly facade, and the paneled door on the "northwesterly" porch which it shares with the ell. Page House is a fine mid Victorian house which has apparently seen few, if any, external changes.

Within the small U-shaped space formed by the main block, ell and rear wing of the house, is a small wellhouse (#8A), clapboarded with cornerboards, a gable roof and a single door. Behind the house is a large hip roofed garage (#8B), clapboarded with cornerboards, and exposed rafters in its eaves. On the driveway facade are two pairs of swinging garage doors, and two single doors, one with a transom window. Three sash windows are found on the rear wall, but the side walls are blank.

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The spacious grounds of the Page House are protected by a picket fence along the street, punctuated by square paneled and capped posts, two pedestrian gates and a driveway opening. The wide lawns are surrounded by trees and shrubs. And, at the end of the southeasterly lawn, is found a modern tennis court.

#9 Kona Drinking Fountain (Town of Centre Harbor) - The Kona Drinking Fountain was erected in the summer of 1907 and formally presented to the Town of Centre Harbor by Herbert Dumaresq, on September 30 of that year. Dumaresq, a wealthy Boston businessman, owned Kona Farm, a summer estate on nearby Moultonboro Neck. The circular bowl on its round pedestal was cut from a block of Concord, N.H granite. A dedicatory inscription, interrupted by small carved dolphins, encircles the bowl, just below its moulded lip. In the center of the bowl, is a bronze statue by sculptor Samuel Russell Gerry Crook, of an Indian boy sitting on a boulder inscribed "KONA" and struggling with a goose. In seasonable weather, a jet of water spouts from the goose's outstretched beak to fill the bowl. The fountain is one of the most charming pieces of public sculpture in the state.

#10 Nichols Memorial Library (Town of Centre Harbor) - The Nichols Memorial Library was given to the Town of Centre Harbor by James E. Nichols, a prominent New York merchant and former resident of Centre Harbor village, in memory of his parents. The cornerstone was laid on September 29, 1909. The library was built by T.J. Guay Construction Co. of Laconia, N.H., to the Classical design of Boston architect Charles Brigham. The building was formally dedicated and opened to the public on June 18, 1910. The one-story library has a rectangular hip roofed main block with two projections centered on its shorter axis , a shallow pedimented entry facing Plymouth Street, covered by a subsidiary gable roof, and a semicircular projection to the rear, covered by another subsidiary roof with a half conical termination. The high cut granite block foundation is topped by a moulded limestone sill course and broken only by short segmental arched and rectangular basement windows. The walls are faced with thin, sand colored bricks, laid in a running bond on the main block, but in flemish bond on the rear semicircular projection. At the corners of the main block and flanking the rear projection, are found limestone quoins, which rise a little above the eaves. The main block's stone cornice features mouldings and blocks. The roofs are covered with slate, and their copper ridge flashings are ornamented by heavy mouldings. Wide chimnies of the same sand colored brick break the northwesterly and southeasterly slopes of the hip roof. The main feature of the Plymouth Street facade is the pedimented entry. Granite steps lead up to double-leaf paneled doors with a stone architrave surround, a bracketed entablature, and an ornate transom window. Flanking the doors are two narrow windows with stone sills and flat brick heads. The doors and windows are set in a shallow recess between banded stone piers which support a full Classical stone entablature and pediment with a brick tympanum. (The library's name is spelled out in bronze letters on the entablature.) Between the piers and flanking the steps are two stone Tuscan columns, with corresponding pilasters on the side of the piers. On the faces of the piers are found elaborate electric lamps with torch-shaped supports and glass globes. On each side of the projecting entry are three-part windows with one over one sash and wider central window. The windows are framed in stone--sloping sills, Corinthian pilasters at the sides, engaged Corinthian colonettes between the windows, and a full entablature with projections over the pilasters and colonettes. The side facades (southeast and northwest) each have a similar three-part window towards the front of the building, with one or two smaller and plainer windows with stone sills and flat brick heads towards the rear. The semicircular projection in the center of the rear facade has seven narrow windows, all with stone sills

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and flat brick heads. The stone cornice of the main block is continued around the projec-
tion, but here it is topped by another band of stone and a moulded metal cornice. The
three windows of the rear facade all have stone sills and flat brick heads as does the
rear entry, a paneled door with a built-in window and a large transom window, just east
of the projection. The rear door's granite steps span the stairway down to the basement
door. The Nichols Memorial Library is a fine building in the Classical style of the early
20th century. And, architecturally, it is easily the most important building in the
District.

The Library sits on a flat broad lawn, marked off from the sidewalk by a granite curb. On
the lawn are a few ornamental trees and shrubs, the library sign, and the town's war
memorial--a large boulder with two elaborate bronze plaques honoring Centre Harbor's
soldiers and sailors of the Civil War, the Spanish-American War, and the two World Wars.

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notable for its proportions and ornament, is one of the best surviving early Victorian houses in the region. The Page House (#8), although less important, is nevertheless a fine mid Victorian house that is an ornament to the village. The one Victorian commercial building surviving in the District is the Morse & Stanley Block (#3) which, despite some alterations, notably on the first floor, is still a good example of its type.

The 20th century has seen a few changes in the District. In 1907, a wealthy summer resident gave the Kona Drinking Fountain (#9) to adorn the village's major intersection. The fountain is unique in the Lakes Region as the only public fountain boasting sculpture, here a charming piece by Massachusetts sculptor, Samuel Russell Gerry Crook. Another public benefactor, James E. Nichols, gave an even more impressive gift to the town in 1910, the Nichols Memorial Library. Designed in a Classical style by prominent Boston architect Charles Brigham, the Library is one of the best small public libraries in the state, and the most architecturally significant building in the town of Centre Harbor. Its exterior, like the fountain's has not changed since the day of its dedication. Two 19th century buildings (#4 and #5) were enlarged and remodeled in the 1920's to form the new Garnet Inn complex. Kahle House (#4) was completely remodeled and therefore, has a more coherent design than the Dane House (#5), which still retains much of its 19th century character. Both, however, are attractive buildings, particularly if considered separately.

Since the 1920's, the District has survived almost unchanged. This stability can be attributed partially to the new section of Route 25, built nearer the lake in 1953 and 1954 to bypass the village. Strip commercial development has been diverted to the new road, thus sparing the District. Several of the buildings in the District were used by the short lived Belknap College (1963-1973). Page House (#8) was the college president's residence, while the property now owned by Centre Harbor Village Associates (#1, #2, #4, and #5) served as the College's Lower Campus. But only Coe House (#2) saw any important external changes, and then only in the wings. One building within district boundaries, Harper House, located on Main Street just north of Raines House (#1), did burn in 1972, while being used as a college dormitory. Basically, however, the Centre Harbor Village Historic District appears today as it did over fifty years ago, a pleasant village core notable for the quality of its buildings.

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Continuation sheet #12 - GEOGRAPHICAL DATA

Item number 10

Page 2

Verbal Boundary Description and Justification:

The boundary of the Centre Harbor Village Historic District is as follows - beginning at the junction of Bean Road and Main Street, then southwesterly along the western curb of Main Street to the northern boundary of James and Helen Ferrante, then due south on an arbitrary line across Main Street to the easterly curb of Main Street, then due east on an arbitrary line to the westerly curb of Old Meredith Road, then southwesterly along the westerly curb of Old Meredith Road to the southwest boundary of the Nichols Memorial Library lot, then along the southwest and northwest boundaries of the Library lot, then, continuing on the same line as the northwest boundary of the Library lot across Plymouth Street to the north curb of Plymouth Street, then west on the north curb of Plymouth Street to the northwest boundary of Donald and Mary Ann Keay, then along the northwest and northeast boundaries of the Keays to the boundary of Centre Harbor Village Associates, thence along the northwestern and northeastern boundaries of Centre Harbor Village Associates to Bean Road, then east along the southerly curb of Bean Road to the point of beginning. (This boundary is shown by the heavy dashed line on the attached sketch map.)

The boundaries are drawn to include the surviving unaltered buildings of architectural merit in the center of the village of Centre Harbor, excluding from the District empty lots, modern and modernized buildings. The District includes the nine buildings, their lots, and through the use of arbitrary lines, the Kona Drinking Fountain with some surroundings open space.

All of the properties in the District appear on Sheet 9 of the Centre Harbor Property Maps. The parcel numbers are as follows: #1, #2, #4, #5 - 222; #3 - 237; #6 - 235; #7 - 234; #8 - 233; #10 - 246.

United States Department of the Interior
National Park Service

National Register of Historic Places
Inventory—Nomination Form

For NPS use only

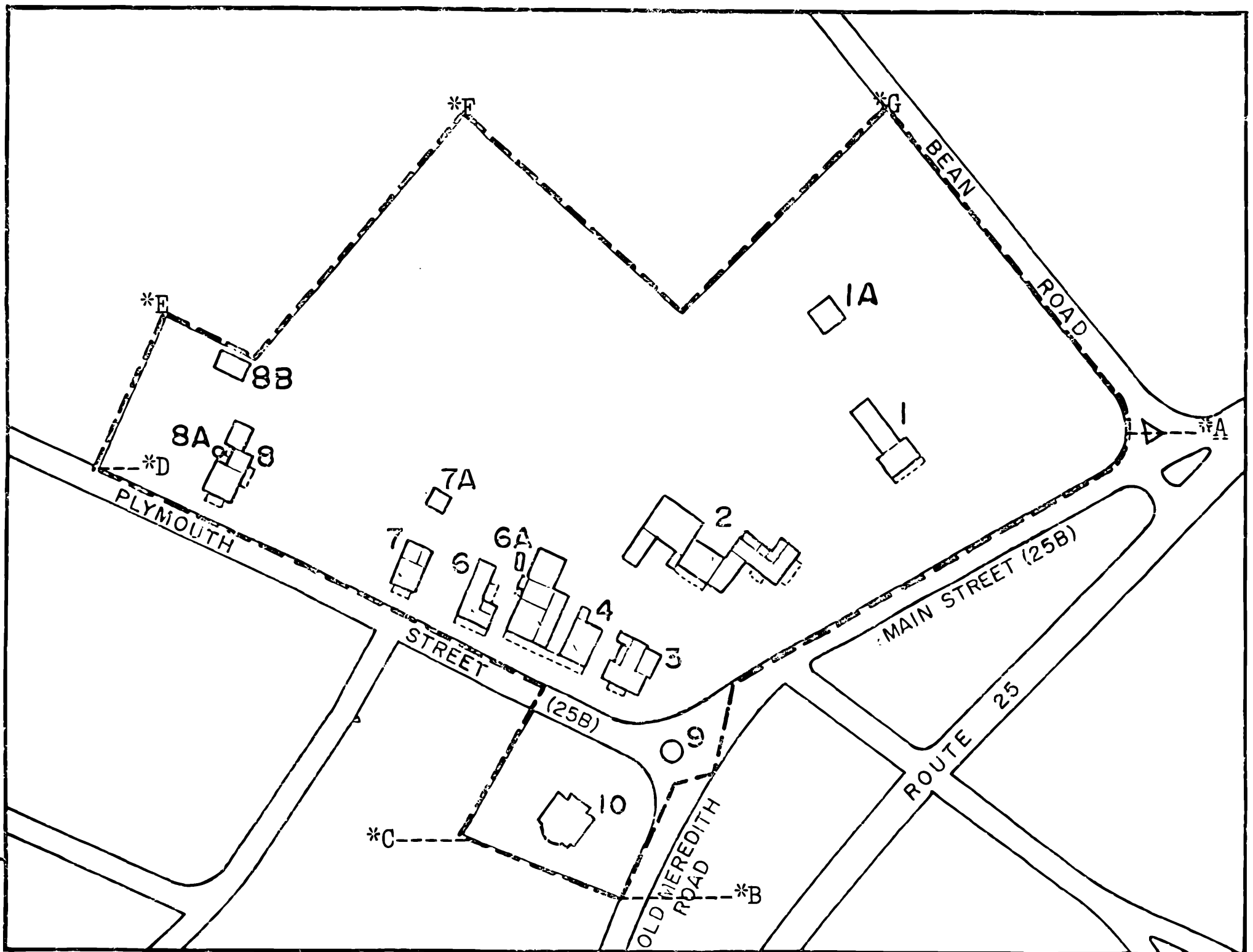
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Continuation sheet #13 - SKETCH MAP

Item number --

Page 1



Centre Harbor Village
Historic District

200 0 100 200 300 feet



*UTM reference points (*A, *B, *C, *D, *E, *F, & *G)



NATIONAL REGISTER OF HISTORIC PLACES PROPERTY PHOTOGRAPH FORM: NEW HAMPSHIRE

Historic Name: Raines House and Coe House
 Common Name: same
 NR District: Centre Harbor Village Historic District
 Address: Main Street
 City/Town/State: Centre Harbor, N.H.
 Photographer: David Ruell
 Negative with: Lakes Region Planning Commission, Meredith, N.H.
 Description: From right to left, Raines House (#1), Coe House (#2), parts of rear facades of Kahle House (#4), and Morse & Stanley Block (#3).

Photographer facing N NE E SE S SW W NW Photo Date: April 1, 1983 Photo Number 1 of 6

APR 15 1983



NATIONAL REGISTER OF HISTORIC PLACES PROPERTY PHOTOGRAPH FORM: NEW HAMPSHIRE

Historic Name: Coe House
 Common Name: same
 NR District: Centre Harbor Village Historic District
 Address: Main Street
 City/Town/State: Centre Harbor, N.H.
 Photographer: David Ruell
 Negative with: Lakes Region Planning Commission
 Description: Coe House (#2) - East and south facades.

Photographer facing N NE E SE S SW W NW Photo Date: April 1, 1983 Photo Number 2 of 6

APR 15 1983



NATIONAL REGISTER OF HISTORIC PLACES PROPERTY PHOTOGRAPH FORM: NEW HAMPSHIRE

Historic Name: Kona Drinking Fountain, Morse & Stanley Block, Kahle House
Common Name: same
NR District: Centre Harbor Village Historic District
Address: Plymouth Street
City/Town/State: Centre Harbor, N.H.
Photographer: David Ruell
Negative with: Lakes Region Planning Commission
Description: From right to left, Kona Drinking Fountain (#9), Morse & Stanley Block (#3), Kahle House (#4), Dane House (#5), Locust Cottage (#6), Dr. Morrill House (#7).
Photographer facing N NE E SE S SW W NW Photo Date: April 1, 1983 Photo Number 3 of 6

APR 15 1983



NATIONAL REGISTER OF HISTORIC PLACES PROPERTY PHOTOGRAPH FORM: NEW HAMPSHIRE

Historic Name: Dane House, Locust Cottage, Dr. Morrill House
 Common Name: same
 NR District: Centre Harbor Village Historic District
 Address: Plymouth Street
 City/Town/State: Centre Harbor, N.H.
 Photographer: David Ruell
 Negative with: Lakes Region Planning Commission
 Description: From right to left, Dane House (#5), Locust Cottage (#6), Dr. Morrill House (#7).

Photographer facing N NE E SE S SW W NW Photo Date: April 1, 1983 Photo Number 4 of 6

APR 15 1983



NATIONAL REGISTER OF HISTORIC PLACES PROPERTY PHOTOGRAPH FORM: NEW HAMPSHIRE

Historic Name: Page House
 Common Name: same
 NR District: Centre Harbor Village Historic District
 Address: Plymouth Street
 City/Town/State: Centre Harbor, NH
 Photographer: David Ruell

Negative with: Lakes Region Planning Commission

Description: Page House (#8) - south and east facades

Photographer facing N NE E SE S SW W NW Photo Date: April 1, 1983 Photo Number 5 of 6

APR 15 1983



NATIONAL REGISTER OF HISTORIC PLACES PROPERTY PHOTOGRAPH FORM: NEW HAMPSHIRE

Historic Name:

Nichols Memorial Library

Common Name:

same

NR District:

Centre Harbor Village Historic District

Address:

Plymouth Street

City/Town/State:

Centre Harbor, NH

Photographer:

David Ruell

Negative with:

Lakes Region Planning Commission

Description:

Nichols Memorial Library (#10) - north and east facades

Photographer facing N NE E SE S SW W NW Photo Date: April 1, 1983 Photo Number 6 of 6

APR 15 1983

APPENDIX V

PREVIOUS REPORTS & STUDIES

(produced previously by others, included for reference)

HISTORY OF STUDY FOR RENOVATION OF LIBRARY

In 1992 the Trustees had asked Christopher P Williams, Architects to do a conceptual sketch of a ramp access for disabled patrons into the library and a proposed budget for that work. After consideration of this proposal the Trustees decided that it was not necessary at that time to build a ramp access into the library. The trustees noted the opinion from Judith Kimball and Tom Ladd (both from the NH State Library) that a plan to arrange delivery of material to disabled patrons and an arrangement with neighboring libraries with ADA access to allow our patrons to use that library would be sufficient to meet any challenge from the ADA. The Trustees also cited the expense of the ramp and stated that they wanted more time to study future needs of the library.

In 1993 an inspection of the JENML was done by James L Garvin, Architectural Historian from the New Hampshire Division of Historical Resources. This inspection was requested by both Barbara Benoit and Michael Sullivan, who were at that time the Chair of the Trustees and the Librarian. A six page report was generated from James Garvin reviewing steps to be taken before considering an addition. One of the problems he highlighted was the problem of water in the basement.

In 1993 Mike Ritter of the Christopher P. Williams Architects firm visited JENML at the request of Michael Sullivan, Librarian to assess the floor structure in front to the circulation desk, the moisture problem in the basement and the possibility of asbestos in the building. A three page letter of recommendations was received after the inspection. In 1994 asbestos was removed from the building and dehumidifiers were installed in the basement. The structural integrity of the area in front of the circulation desk was deemed adequate.

In 1999 Christopher P Williams, Architects was asked by the Trustees for a feasibility study to review options for renovations and possible additions to the library. After that report, the Planning Committee approved electrical work and boiler replacement but decided that further study was needed on renovations.

In 2001 a request for Estimate to Renovate the Basement of JENML was sent out and the bid was won by Sheerr McCrystal Palson. By December 2002 after much discussion and changes to the requests form, the Trustees received a letter from Sheerr McCrystal Palson that they had arranged to work with Rist Frost Shumway Engineering to develop a schematic mechanical design. SMP's, Jeff Parks, spoke at the trustees meeting in February 2003 and stated that the library would not gain much useable space for the expense entailed. After hearing that report the Trustees decided that an addition would not be advisable and asked the Selectmen instead to replace existing boiler, do a new perimeter drain around

the library and a possible dumb waiter to carry book from main floor down to basement for more storage. In 2003 a new steam boiler was installed the rest of the recommendations were put on hold.

In 2007 the Trustees received a letter from Robert P Woods, Interim Fire Chief, and a notice from Ken Balance, Compliance Officer that the basement was limited to storage and no public use.

At this point in time the Trustees want to preserve the Library for future generations. We feel that in order to do that, we need an assessment of the entire building and a time frame from that assessment of needed upkeep and repairs as a future outline to keep the library a viable part of the community.

JENML – INTERIOR HISTORY

ASBESTOS REMOVAL

1994 ASTEC (Asbestos Technologies Inc.)

Removed asbestos

AIR CONDITIONER

2006 Home Energy Products

Installed Mitsubishi air conditioner

2016 Home Energy Products

Installed new Mitsubishi air conditioner

BATHROOM

2011 Joe Price Bldrs. & Smitty Plmbg & Htg

Bathroom renovated

BLINDS

2005 Budget Blinds

Installed blinds replacing pull down shades

CARPET

2002 Kuzina Floor Covering Center

Installed carpets on main level

COMPUTERS

- 1996 PC & Mac Connection & Enhanced Computer Systems
Installed single disc driven computer
- 2000 AdelXT Computer & Sagebrush Technologies
Server, Librarian, Circulation & 1 PAC computers installed
Software from Sagebrush & bar codes from NH State Library
- 2001 AdelXT Computer
Added 1 additional PAC computer
- 2002 AdelXT Computer
Added 1 additional PAC computer
- 2006 AdelXT Computer & Sagebrush
Installed new computers and software
- 2012 AdelXT Computer & Book Systems
Installed new computers and software

LIGHTING

- 2001 Frase Electric
Upgrade to 240 volt & 3 wire service, basement & outdoor lighting
- 2017 Consolidated Electrical Distrib. & TNT Electrical Contractor LLC
Elliptipar LED lighting installed over book stacks & refurbished interior fixtures

OIL BURNER

- 2003 Stafford Oil Company, Inc.
Installed Dunkirk ES14 Boiler – steam radiators

- 2007 Stafford Oil Company, Inc.
Replaced boiler block under warranty
- 2016 Phil Cowels Htg & Air Control
Installed Megasteam 3-Pass Boiler

SHELVING

- 1995 Tony Lesieur
Construct outdoor book drop box
- 1995 Tony Lesieur
Construct audio cassette carousel
- 1997 NH State Prison Correctional Industries
Oak bookcases in children's area
- 2005 Joe Piece Bldrs.
Construct rotating book display & 1 book shelve
- 2006 Joe Price Bldrs.
Construct 3 bookcases to fit rounded alcove
- 2011 Joe Price Bldrs.
Install power outlets to reading tables & repair 11 chairs
- 2014 Joe Price Bldrs.
Construct additional bookcase in children's area

WATER HEATER

- 2015 Phil Cowels Htg & Air
Installed Therma-Flow Inc. – tankless water heater

CHRISTOPHER P. WILLIAMS, ARCHITECTS

PO Box 656 · Meredith, New Hampshire 03253

603-279-6513

August 20, 1993

Barbara Benoit, Chairman
Library Trustees
Nichols Library
Box 1339
Center Harbor, NH 03226

Dear Barbara:

On Friday, July 30, 1993, Mike Ritter of our office and I made an on-site visit to the library after talking with Michael Sullivan to investigate: 1) The floor structure at the main entrance in front of the circulation desk; 2) The apparent moisture problem in the basement; and 3) The apparent presence of asbestos containing materials.

Floor Structure

Using a tight string measurement method, we were able to measure only a 3/16" sag in the floor over a span of 12 feet. As there was virtually no live load on the floor, this sag may have been built-in, and does not represent a structural deflection. We also measured the floor span to either side of the span in question and the floor in the stack area. We found no sag or deflection in these areas. By common design practice, the floor deflection is normally limited to 1/360 of the span which is 3/8" for this span.

I made some quick structural calculations, based on some assumed stress values for the wood floor joists, which indicated that the floor should carry the 60 pound per square foot live load for a library lobby or reading area. The area should not be used for a stacks area since code requires a 125 pound per square foot structural capability.

We were impressed with the quality of construction and saw no indication of any problem with the floor system. These findings are based on observations and should not be construed as a detailed structural analysis.

Moisture in Basement

A lack of adequate ventilation is contributing to the high humidity and the resultant mildew and musty odors in the basement. The windows are single glazed, wood hopper units and have no screens. For reasons of security, these windows are kept shut. No other means of ventilation is apparent.

Dampness can be felt along the entire unfinished concrete wall and floor. Where plaster is applied, severe efflorescence is present. There is some evidence of water leaking through the foundation walls.

Member A.I.A.

The existing copper downspouts located around the building suggest that the run-off from the roof was originally carried away by a system of integral gutters and leaders to the storm drainage system. It is assumed that this system failed and that the gutters are now concealed below the standing seam copper roofing located at the roof eave. As the run-off from the roof is no longer carried away from the building, it has eroded the grade around the building perimeter to a depth of 2 to 3 inches. Water is being directed towards the building and drains into the basement.

The run-off is also causing the staining of the exterior walls and may be contributing to the failure of mortar joints in the stone work which allows more water to enter the building.

Recommendations

A. Alleviate the problem caused by the run-off from the roof.

Option 1: Remove the copper roofing at the eaves and restore the original integral gutter system. Add screening to prevent leaves and other debris from clogging them. Clean and repair or replace all the drain lines from the building to the storm drainage system at the road. Inspect and clean on an annual basis.

Option 2: Install new gutters, repair or replace the leaders to the drainage lines. Clean and repair or replace all the drain lines from the building to the storm drainage system at the road. Inspect and clean on an annual basis.

Option 3: Excavate around the entire perimeter of the building and create a trench drain which can be tied into some of the existing drain line to the storm drainage system. Install water proofing to the exterior of the foundation. Further investigation will be required to determine invert elevations at the storm drain system and at the building.

Option 4: Modify the site grading to create at least a two percent slope away from the building towards a drainage swale. The swale should be constructed to allow any surface runoff to flow into the existing municipal storm drainage system. In addition, an impermeable layer of clay, extending out from the building a minimum of 15 feet, should be placed under the topsoil.

B. Ventilate the basement.

1. Add security grate and insect screens to the basement windows. Open the windows as weather permits.

2. Install a heat recovery ventilator with related duct work.

- a. Van-EE Model 2000
- b. Airchanger Model 275
- c. Echo-changer Model R-2

C. Other Moisture Mitigation Options

- 1. Point up exterior and interior masonry joints.
- 2. Purchase and install a dehumidifier.

3. Install below grade, negative side waterproofing (implement as required only after roof drainage is resolved).
 - a. Conpro-plug for repairs
 - b. Conpro-super seal for waterproofing

Asbestos

The insulation covering the steam pipes in the basement appears to contain asbestos. There are a number of areas where the insulation has been damaged or cut and the fibers are exposed.

The existing plaster has been damaged in some areas and it is evident that it contains some type of fibrous material which may also be asbestos.

Asbestos abatement contractors and laboratories are listed in the yellow pages. They should provide you with free estimates.

Recommendations

- A. Have the plaster tested by a qualified laboratory to determine if it contains asbestos. Review abatement options if necessary. N.O
- B. Pipe Insulation: Asbestos Abatement Options to be performed by a licensed abatement contractor and in compliance with all State and Federal rules and regulations. Please note that it will be necessary to remove the asbestos when a new heating system is installed.

Option 1: Postpone removal and leave in place, encapsulate the asbestos and affix warning label.

Option 2: Remove asbestos and dispose at government approved site. The asbestos will be labeled with Owner's name. Owners are responsible for any future clean up costs. Install new pipe insulation.

Please call if you have any questions or need further help.

Sincerely,

Richard G. Holt

Richard G. Holt

RGH/sam

cc: Board of Selectmen

*ca 2300
'94 warrant
ca 3000 remove &
replace asbestos*



NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCES

State of New Hampshire, Department of Cultural Affairs
19 Pillsbury Street, Box 2043, Concord, NH 03302-2043

603-271-3483
603-271-3558

FAX 603-271-2361 Voice/TDD RELAY ACCESS 1-800-735-2964

**REPORT TO THE TRUSTEES
JAMES E. NICHOLS MEMORIAL LIBRARY
Center Harbor, New Hampshire**

**James L. Garvin
Architectural Historian
September 27, 1993**

This report is based on an inspection of the Nichols Memorial Library made on September 27, 1993, at the invitation of the library trustees. The meeting included Barbara Benoit, chair of the trustees, other members of the board, and Michael Sullivan, librarian. The purpose of the inspection was to consider some preliminary ideas for the provision of access to the library by people with disabilities, and to assess the general condition of the building.

Summary: The James E. Nichols Memorial Library is one of the finest small libraries in New Hampshire. It was built in 1910 from plans by the prominent Boston architect Charles Brigham. The library embodies a sensitive classical exterior executed in granite, Roman bricks, and limestone, and a dramatic interior with superb detailing and finish. The library was built to the highest standards of an age in which the building trades in the United States reached their pinnacle, and its sound construction has enabled the structure to serve for over eighty years without major repairs. The building was listed in the National Register of Historic Places on September 8, 1983.

Now, however, the library trustees must consider alterations to broaden opportunities for access to the building under provisions of the Americans With Disabilities Act of 1990. Because the configuration of the building does not offer easy access, and because any casual change to the structure could seriously damage the sensitive original design, the New Hampshire Division of Historical Resources strongly urges the town of Center Harbor to employ an architect to consider a wide range of issues before making any commitment to alter the structure.

Moreover, our inspection of the library has revealed that prior repairs have compromised the original function of the drainage system of the building. This, in turn, has introduced water problems that threaten the building and limit the full use of the basement as a possible means of providing both access to the structure and expanded library space. Correction of these newly-created water problems is an even more urgent need than provision of full access to the structure. This work should also be supervised by an architect.

Access: The Nichols Memorial Library, like other public buildings of its era, was not designed to offer access to those who use wheelchairs or have difficulty climbing stairs. Current state and federal regulations require that public facilities offer either physical access or equivalent services. The Americans With Disabilities Act (ADA), a civil rights law that was passed in 1990 and became effective in January, 1992, requires that the owner of any building that is opened to the public must strive to make the building fully accessible to people with disabilities even if no renovations to the building are planned. If it is not possible to make a public building, or part of such a building, physically accessible, alternative means of providing access to programs or benefits must be found.

As an interim means of complying with the ADA, the trustees of the Nichols Memorial Library have adopted a policy that offers equivalent library services through delivery of library materials to people with disabilities or to neighboring libraries that meet accessibility requirements.

In time, the town of Center Harbor will want to provide full or partial physical access to the library, which is one of the town's architectural treasures. The ADA requires that if a public building is renovated (except for routine maintenance, such a re-roofing or painting), the owner must ensure that ADA requirements for physical accessibility are met.

Because the library has been designated a historic structure by being listed in the National Register of Historic Places, the Americans With Disabilities Act would permit certain alternate requirements for access to be applied to the structure. The ADA recognizes that certain changes to historic buildings can compromise the very features that make such structures important, and therefore provides for the preservation of architectural integrity while ensuring access. The ADA's alternate standards for historic buildings could be invoked if other solutions threatened to damage the architectural integrity of the library.

In a complex and sophisticated building like the Nichols Memorial Library, however, even these alternate standards require professional thought and insight. The town of Center Harbor has been fortunate in receiving architectural advice as a contribution from the Meredith architectural firm of Christopher P. Williams, AIA. Development of a full plan for access, and for the correction of other architectural problems that relate to access and to expanded use of the building, is a complex undertaking that cannot be addressed within the limits of contributed architectural services. The Division of Historical Resources strongly recommends that the town of Center Harbor appropriate sufficient funds to employ an architect to develop a full study of both physical access to the library and expanded user services, especially in the currently under-utilized basement. A list of architects who specialize in work on historic buildings is appended to this report.

Among the possibilities for access to the building would be the provision of a level entry pathway leading from Main Street to the existing basement entrance at the southeast corner of the library. The basement could be adapted to include accessible rest rooms, expanded space for patrons (perhaps children) and collections, and other needs. Use of the basement entry as a means of providing access under ADA would, of course, require the design of a lift system to connect the two floors. This, in turn, would pose design challenges that call for the experience and insight of an architect.

Included with this report is information on a variety of manufacturers of passenger lifts and elevators.

While the Americans With Disabilities Act, as a civil rights law, generally discourages the provision of a secondary entrance for people with disabilities, the rules are softened for a historic building like the Nichols Memorial Library. For such buildings, as mentioned earlier, certain minimum standards may constitute compliance with ADA if, in the opinion of the State Historic Preservation Office (the Division of Historical Resources), compliance with more stringent accessibility standards would "threaten or destroy" the significance of the building. In general, however, historic properties should be made as accessible as non-historic properties to the greatest extent possible.

The minimum requirements for historic buildings are:

1. Only one accessible route must be provided from a designated access point on the site (usually, a parking lot or designated handicapped parking space) to an accessible entrance to the building. If necessary, a ramp with a 1:6 slope (much steeper than the normally specified slope) may be permissible for a short run of up to two feet.
2. One accessible entrance to the building must be provided. If it is not possible to make the main entrance or the normal public entrance accessible, then an alternative entrance, unlocked when the building is opened to the public, is acceptable. Signs must be provided to direct people from the main entrance to the accessible entrance, and a notification system (usually, a bell) must be provided at the designated accessible entrance.
3. If public toilets are provided, only one need be handicapped accessible, and this may be unisex.
4. Public spaces on the level of the accessible entrance (normally, the first floor) must be handicapped accessible. Other public levels of the building should be made accessible whenever practical.
5. Displays or written information should be located where they can be seen by a seated person. Horizontal signage should be no higher than 44 inches above the floor.

Even these minimum requirements for accessibility may be negotiable, under close consultation with the State Historic Preservation Office (the Division of Historical Resources), if they conflict with a set of preservation standards known as the **Secretary for the Interior's Standards for Rehabilitation**. A copy of the **Secretary's Standards** is appended to this report.

Water Problems: Assuming that access through the basement of the library building is ultimately found advantageous, or that such facilities as accessible toilet rooms or a children's area could take advantage of a refurbished lower level, certain problems must be overcome. Chief among these is moisture in the basement, which is now causing some deterioration of plastered wall surfaces and a general condition of mustiness in the room.

The greater part of the moisture that now affects the basement appears to be roof water. Penetration of roof water into the cellar appears, in turn, to be a result of changes that were made some years ago to the original roof drainage system of the building.

As originally designed, the building had integral rainwater gutters that were set into the top of the limestone cornice that surrounds the structure. These integral gutters would have taken the form of soldered copper troughs set into channels in the top of the projecting cornice stones. The copper troughs were drained through downspouts that penetrated the cornice at intervals and conducted the collected roof water to elaborate copper leaders which are mounted on the walls of the building and form a part of the overall design of the structure. The leaders, in turn, are connected at grade level to cast iron storm sewer pipes that carried the rainwater underground to discharge points, probably dry wells placed some distance from the structure.

Evidence suggests that some years ago the copper troughs set within the stone cornice deteriorated and began to leak. Heavy-gauge roof copper such as was used in 1910 has proven to have a useful life of from forty to eighty years, and the gutters of the library had undoubtedly developed pinhole leaks at the points where water flow was greatest. Evidence of these leaks is seen in the green stains at each joint of the cornice stones. Some of this leakage may have penetrated the building's walls as well; there is iron oxide staining below the window of the former selectmen's room at the southeast corner of the building, and this appears to have come from water that found its way into the walls of the building and then leached out onto the surface.

The method that was chosen to overcome the deterioration of the copper troughs was to install a new, standing-seam copper eaves belt over the gutters, thereby allowing all roof water to fall from the eaves of the building to the ground. In some areas, where roof valleys gather a large quantity of rain, this discharge is extremely heavy and concentrated. The result is saturation of the soil around the building, especially beneath the valleys that flank the front entrance pavilion and the rear semicircular bay.

Due to the relatively slight projection of the cornice beyond the plane of the walls below, a second result of bypassing the gutters has been the washing of large amounts of roof water over the wall surfaces, especially below the roof valleys. Many of the wall areas most affected by this water are constructed of limestone. Limestone is adversely affected by acid, and rain today is acidic. Like any other sedimentary stone, limestone is also subject to spalling from frost action. The result of the passage of water over the walls is predictable. As may readily be seen around the building, and especially on the southwest juncture of the main wall and the semicircular bay, there has been severe staining of the limestone, spalling of the stone surfaces, loss of mortar in the stone and brick joints, and a general deterioration of the walls. This and similar areas are also the zones of greatest water penetration into the basement. In addition, the falling of large quantities of ice and snow in the wintertime has crushed and damaged the copper leaders near the ground.

In a letter of August 20, 1993, to Barbara Benoit, Richard G. Holt of the firm of Christopher P. Williams, Architects, has outlined four options for moisture control in the library:

1. Remove the copper roofing at the eaves and restore the original integral gutter system to full operation;
2. install new suspended gutters (like the one over the back door/basement door) outside the stone cornice and connect them to the existing copper leaders;
3. excavate around the building and install an underground drain system that will connect to and discharge into underground drain pipes around the building; or
4. change the grade of the site to carry surface water away from the building, to a leading it to a drainage swale that will conduct the water to a catch basin or storm sewer.

From the perspective of historic preservation, the first of these options would be the best. It is always preferable to maintain the original systems of an old building in working order unless they have proven to be faulty in design. In the case of integral roof gutters, the main potential problems might be the formation of ice dams in the winter. The generally good condition of the building until a few years ago (as evidenced by photographs) suggests, however, that the original roof drainage system worked satisfactorily until the copper gutter troughs reached the end of their expected life.

Because the town has recently invested a large sum in the installation of the copper eaves roofing across the tops of the original gutters, there will probably be little sentiment in favor of removing this work until it deteriorates. Perhaps in another half century or so, when the new copper has corroded, the town will wish to consider the restoration of the original system.

In the meantime, the second option suggested by Mr. Holt has the advantage of gathering the roof water at the eaves, before it can wash over the building's walls or saturate the soil around the structure. From the standpoint of conservation of the building, this would be the second most desirable approach to solving the water problem. Its disadvantages would be a change in the building's architectural character and the need to repair all the copper leaders and clear out all the underground storm sewers and dry wells. These disadvantages would be more than offset by the benefit of intercepting the water at the roof level and thereby keeping the walls and surrounding soil dry. In planning for the maintenance of a building that was designed to last virtually forever, one may also take the long view. Suspended gutters installed now can be seen as a temporary measure, to be replaced in another half century or so when the deterioration of the present copperwork will require a re-thinking of the problem and will allow the trustees of that future time to consider restoring the original system.

By overcoming the moisture problems now apparent in the library, the town will reduce the need for costly repointing of the walls, will preserve the fragile limestone trim of the building, and will secure a dry basement for future uses.

If the town must choose between curing the present water problems of the building and the provision of immediate access by people with disabilities, I would strongly recommend the curing of the water problems first. The primary duty of any agency that is responsible for a building, especially a historic building, is the preservation of the physical fabric of the structure. At present, the Nichols Memorial Library is in danger of serious deterioration from the uncontrolled discharge of roof water, and this problem must be addressed and corrected quickly.

In any case, however, I would reiterate that the town would be prudent to employ an architect to develop a fuller plan for the future of the library than has been possible under the generous but necessarily limited pro bono work of the Christopher P. Williams firm. The Nichols Memorial Library is a highly sophisticated building, and future work on the structure, whether for routine maintenance or for adaptation to changing needs, should be guided by a professional architect.

In addition, the New Hampshire Division of Historical Resources stands ready to offer any advice or technical assistance within the competency of its staff. The Division recognizes that the Nichols Memorial Library is one of the architectural monuments of New Hampshire, and earnestly wishes to further the preservation and future usefulness of the structure.



Center Harbor Fire-Rescue

P.O. Box 222 • Center Harbor, NH 03226
603-253-4451

Sarah Heath
James E. Nichols Memorial Library
Center Harbor, NH 03226

March 7, 2007

Dear Sarah:

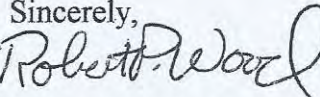
I am writing as a follow up to our recent conversation regarding the enclosure of the boiler at the library. I have reviewed this matter with Rob Farley, Deputy NH State Fire Marshal. We reviewed the code requirements regarding the enclosure in context with the historical building issues and with the use of the basement area for used book sales thereby allowing public access into the area.

In accordance with NFPA Life Safety Code 101, 2003 edition and the NFPA Uniform Fire Code 1, 2003 edition, 13.3.2.1.1, rooms containing high pressure boilers shall be separated from other parts of the building by fire barriers in accordance with section 8.3 that have a fire resistive rating of not less than 1 hour or shall be protected by an automatic extinguishing system (which would require a full sprinkler system throughout the building).

In addition to the boiler enclosure requirement, the current use of the basement requires that a safe path of egress be maintained. The egress path must be protected from the boiler as well, thereby requiring its separation/enclosure. Additionally, proper signage i.e. "Emergency Exit" must be posted at the door exiting the basement area and the door must be unlocked and/or operable by the public to provide rapid egress from the building in the event of an emergency. The exterior path away from the building must also be maintained (clear of snow etc.).

The architectural impact of the enclosure requirement is minimal. Ducting for outside air into the enclosure can be accommodated without any significant architectural change(s), consequently there is no provision for an exemption from the code requirements.

Please contact me if you have further questions regarding this matter.

Sincerely,


Robert P. Wood
Interim Fire Chief

Cc: file

TOWN OF CENTER HARBOR, NH
KEN BALLANCE
603-455-6823

2007

Re: Nichols library inspection

To trustees Heath and Heiner

As per our conversations during and after our inspection of the cellar level of the library the following violations were observed and discussed.

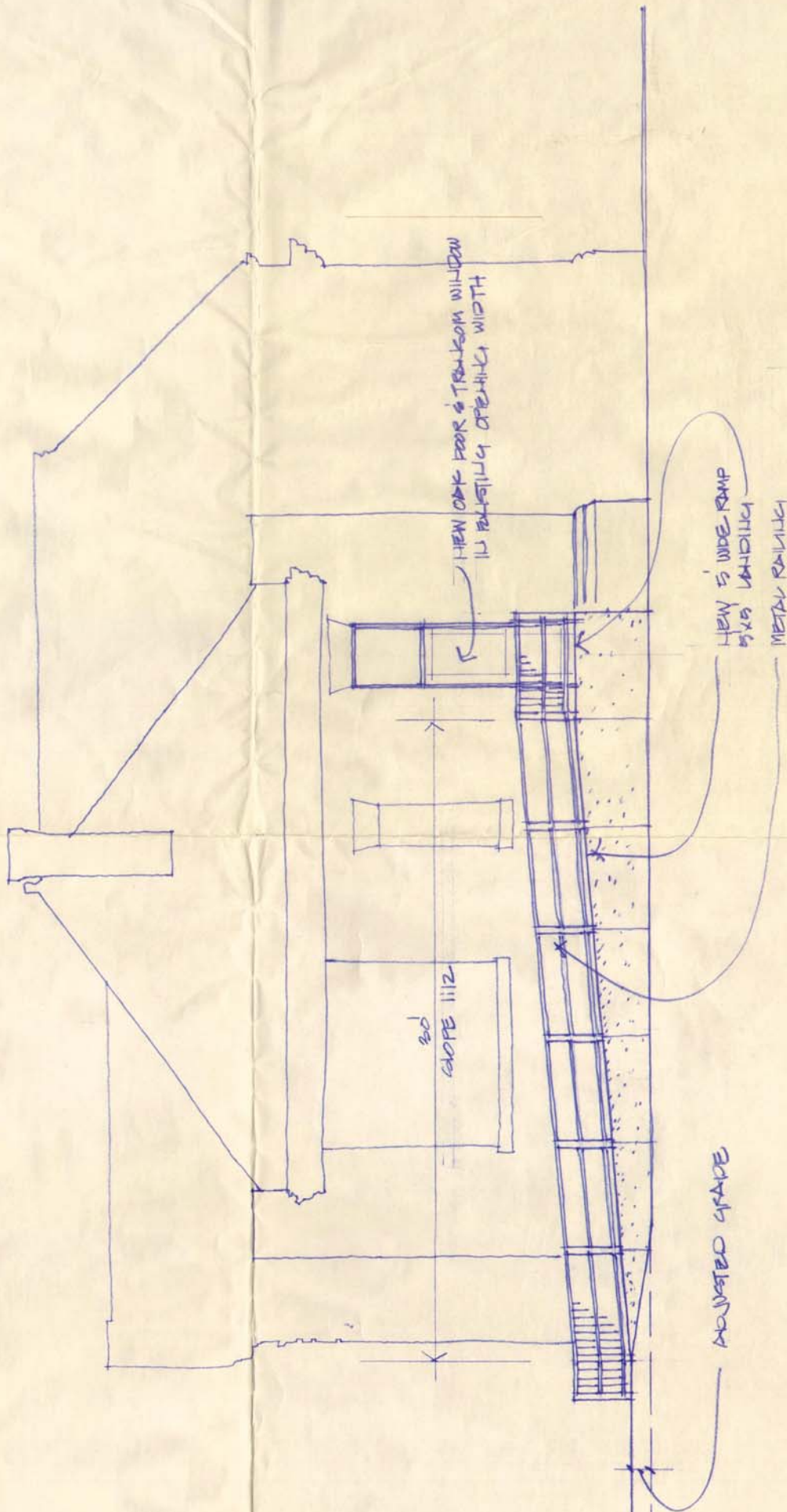
1. public use and access to this area must cease immediately as there is not a code approved means of emergency egress
2. there is numerous electrical violations that need to be addressed in a timely manner
3. the furnace area would need to be enclosed for fire rating and upgraded for air flow
4. emergency lighting and lighted exit signs would need to be installed
5. heating pipes would need to be encapsulated to prevent injury from the hot pipes
6. floor areas would need to be nonskid surfaces
7. a means of fresh air for recirculation would need to be installed
8. there is evidence of dust infiltrations from the uncovered surfaces
9. there is a high level of fuel source in the area of the furnace due to the paper books

Summation: I am requesting that the cellar level be used only for storage on a limited basis and that the public not be allowed access to this portion of the library. The high concentration of fuel source must be removed. I am requiring clearly marked and yearly serviced fire extinguishers clearly visible in the cellar rooms. Continued use of this area will leave the trustees and the town in general open to great liability I therefore am requiring immediate closure to the general public.

Regards, ken ballance

Health and code enforcement officer





NORTH ELEVATION
1/4" = 1'0"

CONCRETE RAMP ADDITION
HIGHLAND MEMORIAL LIBRARY
CENTER HARBOR, ILL.
14 JULY 1972

CHRISTOPHER P. WILLIAMS ARCHITECT
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