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Historic Structure Report

The Pelham Carnegie Library
200 Hand Avenue West
Pelham, Mitchell County,
Georgia

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Contents

Project Purpose and Need

The purpose of this report is to document, evaluate and recommend treatments for the historic structure, the Pelham Carnegie Library, located at 200 Hand Avenue West in Pelham, Georgia. The present owner and steward, the City of Pelham and the Pelham Library Board seek to preserve, protect, and extend the life of this historic property for future generations. The steward anticipates using the findings and recommendations of this report to address critical preservation issues and to guide a strategy for long-term use of the building.

The Pelham Carnegie Library, 200 Hand Avenue West, Pelham, Mitchell County, Georgia.

The Pelham Carnegie Library opened on July 1, 1908, during what scholars call the "golden age of the public library."[1] Funded in large part by a $10,000 grant from industrialist Andrew Carnegie, the Pelham Library was one of the 1,649 funded nationally by Carnegie between 1889 and 1917. Distinguished by its monumental columns and entablature, balanced proportions, and classical styling, the Pelham Carnegie Library looks the part of a high-style, high-culture center of learning and knowledge.

Pelham was the ninth community in Georgia to secure a Carnegie grant and one of the smallest. That Pelham secured the funding was due primarily to the efforts of one man, Judson Larrabee Hand.

The library has served the public continuously since its opening 115 years ago. A large addition was constructed on the historic building's west side in the mid-1990s. Adding modern restrooms, Americans with Disabilities Act (ADA) access and hundreds of square feet for a children's area, the addition has aged more rapidly than the historic building. Today, both structures need significant rehabilitation, and maintenance.

This building reflects a time in American history when cities and towns all over the country were seeking to enrich their communities, promote their sophistication and improve their educational capacity. It was also a time when public library design collided with the more sedate and exclusionary tradition that viewed libraries as an environment for scholars, not necessarily the public. Elements of both these perspectives can be found in Pelham.

This report provides a detailed history of the community, its origins, Mr. Hand's rise to prominence and his subsequent effort to win a Carnegie award. The report also examines the architectural identity of the building, its character-defining features, its historic integrity and known modifications. The heart of this report explores every aspect of the physical structure from foundation to roof. The report concludes with a series of treatment recommendations about rehabilitation and preservation of the existing structure. The overall purpose of this document is to support efforts to sympathetically preserve and invigorate this historic building for future generations.

[1] Andrew Pettegree and Arthur der Weduwen, *The Library: A Fragile History* (Basic Books, 2021), 315.

Executive Summary Conditions and Treatments

The overall condition of the Pelham Carnegie Library is sound, but a critical flexion point has been reached and intervention is required to assure the building's long-term survival. It is somehow not surprising that the first reported repair on this historic building occurred in 1909, a year after opening. The cause then was a leaky roof. Today, the same culprit is responsible for most of the material damage reported in these pages. The installation of a new roof in 2016 arrested this decay but water intrusion continues to plague the building, primarily in the modern addition and its External Insulating and Finishing System (EIFS) cladding. The following is a list of critical issues related to preservation, repair, and maintenance.

Critical Structural Issues:

- Northeast Foundation: An eight-foot by sixteen-inch section of the northeast perimeter foundation wall has collapsed and warrants immediate attention.
- Southwest hyphen: The upper section of the modern addition where it connects with the historic west façade (on the south side) has suffered catastrophic water damage. All load bearing studs within the wall cavity have been destroyed. This section requires immediate attention.

Critical Safety Issues:

- The east foyer stairway has sustained long term water exposure which has significantly weakened the framing and flooring on two of the stair landings. This stairway should not be used until repaired.
- The upper pane of glass in Window #120 (southwestern addition double hung) is in imminent danger of falling out.
- The first-floor patron's restroom (south side) has a damaged section of flooring which should not be trusted to support any weight. This bathroom should remain "out of service" until repaired.
- The interior wall of second floor patron's restroom (south side) is not structurally sound. This bathroom should remain "out of service" until repaired.
- Evidence of mold was observed on several interior walls. Professional assessment of this organic growth the building's air quality should be conducted.

Critical Repair Issues

- The asphalt ridge cap vent shingles should be restored at various locations on the historic structure's roof as well as one section on the hyphen roof. These areas were temporarily covered with non-matching asphalt shingles which do not fully provide weather protection.
- Repair the downspouts at six locations around the building.

Critical Maintenance Issues:

- The electrical sub-panel on the first floor (east wall, storage room) should be made accessible. It is presently blocked by a bookcase.
- The box gutter on the south side of the building requires cleaning. Branches and organic debris are impeding proper drainage.
- The two mature high canopy trees on the south side of the building should be pruned.

Methodology

This Historic Structure Report was based on four site visits to the building (December 2023 through February 2024) where extensive documentation and materials evaluation were conducted. These findings were later analyzed and organized by building systems and that analysis forms the heart of this report.

Additionally, visits were made to library facilities in Atlanta and Athens where Carnegie scholarship and the Hand and Barrow family archives were carefully reviewed. Extensive research was also conducted on digitized historic records including the United States Federal Census, United States Geological Survey (USGS), archives of the *Pelham Journal* available through The Georgia Historic Newspaper Archives, and other historical regional newspapers.

The most significant digital archive was the Carnegie Corporation of New York collection held by Columbia University. This collection revealed over thirty documents specifically related to the construction of the Pelham library. The content of this correspondence greatly informs this report.

The building was documented using photogrammetry to create a 3D model. That model was used to create orthographic captures of the building's elevations and combined with on-site measurements, were used to create the architectural drawings included in this report.

A variety of small material samples were taken, labeled, and microscopically analyzed for this report. These samples included paint, mortar, plaster, and wood.

The recommendations set forth in this report are based on guidelines presented in National Parks Service Preservation Brief 43: *The Preparation and Use of Historic Structure Reports* and NPS-28 Cultural Resource Management Guideline, *Chapter 8: Management of Historic and Prehistoric Structures*.

The authors received invaluable advice and counsel during the creation of this report from Patti Adams, Christian Drake, Julia Singletary, and Mayor James T. Eubanks.

The authors would also like to thank Miriam Powell who graciously shared some of her numerous memories about the Pelham Library in an oral history interview.

A PDF copy of this report, the AutoCAD .dwg files and the window, door, and wall surveys .xlsx files are available at https://www.eampreservation.com/file-share. Users will need to sign up with their email address and create a password. A quick access QR code is provided at right.

This report, including drawings, has been produced for the City of Pelham and the Pelham Library Board and is submitted as a Historic Structure Report and is not intended for use by any other person or for any other purpose. Any inaccuracies or misstatements in this report are entirely the responsibility of the authors. If additional information pertaining to the history of the Pelham Carnegie Library should arise after the publication of this report, please do not hesitate to contact the authors at ericmenninger@gmail.com.

Section 1: Developmental History

History of the Land and Community

The history of Pelham, Georgia, and the land upon which the Carnegie Library sits, is a long tale of natural resources, shifting populations and economic opportunities.

Thousands of years before Spanish conquistador Hernando De Soto first explored the American Southeast in 1540, the area of future Mitchell County was home to three separate cultures of Native American inhabitants. The earliest, dating back over 10,000 years, were the Paleoindians whose Clovis point projectiles have been unearthed along the nearby Flint River.

Figure 1. 1. Clovis Distribution in Georgia. Mitchell County highlighted. Courtesy Peach State Archaeological Society.

Following the Paleoindians were the Woodland and Mississippian Cultures who embraced both a hunter gatherer lifestyle and established some fixed villages like nearby Kolomoki. A survey of the Big Slough Water basin which includes Mitchell County, by University of Georgia Anthropologists in 1976, identified 89 prehistoric sites related to these early Native American cultures in the area.[2] A history of Pelham entitled "The Building of a Town" by Marion Rogers (1976) recounts local youth who regularly unearthed cache of arrowheads on the western edge of Pelham.[3]

In the wake of European first contact, the native populations were decimated by diseases.[4] Survivors banded together creating new communities, new customs, and new tribes. One was the Muscogee peoples, what the early European dubbed "The Creek" "probably due to the large number of rivers, creeks, and streams in their lands."[5] One tribe in the Muscogee confederation were the Oconee who inhabited a vast swath of central Georgia including the land around Pelham.[6]

[2] Paul Fish and William Mitchell, Late Archaic Settlement in the Big Slough Watershed, University of Georgia, Report No. 13, 11. https://archaeology.uga.edu/sites/default/files/2021-12/uga_lab_series_13.pdf.

[3] Marion D. Rogers, *The Building of a Town* (Tallahassee: Rose Printing Company, 1976), 7.

[4] Jamie E. Ehrenpreis and Eli D. Ehrenpreis, "A Historical Perspective of Healthcare Disparity and Infectious Disease in the Native American Population," AJMS, Vol 363, No. 4, 2022.

[5] "The Muscogee Creek 1600-1840," National Park Service. https://www.nps.gov/liri/learn/historyculture/the-muscogee-creek-1600-1840.htm#:~:text=The%20English%20called%20the%20Muscogee,the%20Chattahoochee%20and%20Flint%20rivers).

[6] "Historical Period Georgia," Peach State Archaeological Society. https://peachstatearchaeologicalsociety.org/index.php/11-culture-historic/247-georgia-historical-period.

Figure 1.2. Historic Georgia trails and tribes. A red star marks the approximate location of Pelham. Courtesy of Peach State Archaeological Society.

As the Spaniards and English jockeyed for control of the New World in the 17th and early 18th century, pressure from the expanding European settlements along the coast reached inland.

Figure 1.3. Carey's 1814 State Map of Georgia. Courtesy of The Library of Congress.

Figure 1. 3. Land ceded by Treaty of Fort Jackson, 1814 included future Mitchell County. Image Wiki public domain.

This pressure led many white pioneers into Muscogee territory which caused Native resistance to stiffen. A climactic battle in 1814 at Horseshoe Bend in Alabama led to the collapse of Muscogee resistance. Known as The Red Stick War and the resulting Treaty of Fort Jackson, the outcome was 22 million acres of Muscogee land ceded including the future site of Pelham's Carnegie Library. Starting in 1820 and lasting nearly 15 years, the Oconee and all native Americans tribes east of the Mississippi River were forcibly removed to the western territories.

To distribute these former Native lands, the State of Georgia conducted a series of land lotteries. Parcels ranged in size, depending on the land quality, from 160 to 490 acres. The land that would become Pelham was one of several 250-acre plots won for the entry fee of $18 in the 1820 Lottery.[7] A survey map from that lottery, drawn by William F. Wilkins, of District 4 Early County part of which would later be carved out to create first Baker and later Mitchell County, conveys one overwhelming characteristic of the landscape in 1820. It was blanketed with pine trees, a resource that would fuel the creation of Pelham some fifty years in the future.

[7] "1820 Land Lottery", Georgia State Archives, http://www.georgiaarchives.org/research/1820_land_lottery.

Figure 1.4. Enlargement - Early County, District 4 surveyor map dated June 22, 1820. Note the prevalence of the word "pine" to describe the landscape. Courtesy of Georgia Archives.

Mitchell County was officially established in 1857 but scholars disagree about the origins of its name. Some indicate it was to honor Henry Mitchell, a Revolutionary War hero who later rose to the rank of Brigadier General in the Georgia Militia. Others have indicated it was to honor a two-time Georgia governor, David B. Mitchell, who served in the early 1800s.[8]

Through its early years, Mitchell County was one of Georgia's less populated. The 1860 Federal census counted 4,308 residents in Mitchell County of which nearly 37%, 1,589, were enslaved.[9] One hundred and fifty-two families in Mitchell County owned these enslaved people until emancipation in 1865.[10]

Just after the Civil War, which largely bypassed Mitchell County, The Savannah, Florida, and Western Railway began work on a rail link between Thomasville and Albany. Surveying began in 1867 and the final track was laid in 1869. The line cut across Mitchell County and through the future site of Pelham.[11]

Geologically, Pelham sits at the western edge of an elevated region known as the Tifton Upland District. At 367 feet above sea level, the site of Pelham would be the highest point on the new rail line and serve as a natural place for steam locomotives to take on water and wood.[12]

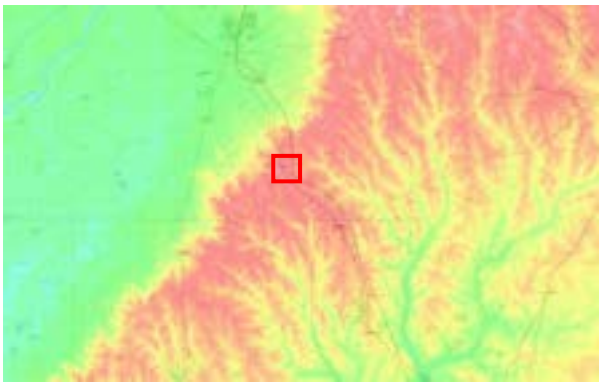


Figure 1.5. Enlargement - Tifton Upland District, Southwestern Georgia, City of Pelham highlighted. Pelham sits at the western edge of the elevated Tifton Upland District. Courtesy of the United States Geological Survey.

The naming of Pelham itself is credited to the surveyors who staked out that original rail line. One of the team, J.A. Maxwell, a civil engineer and veteran of the Civil War, proposed naming this "flag station" after a young Confederate artillery officer with whom Maxwell had attended West Point and was killed in 1863. The deceased officer, John Pelham, had been lionized

[8] Raymond Chambers, "Mitchell County," New Georgia Encyclopedia, July 22, 2022. https://www.georgiaencyclopedia.org/articles/counties-cities-neighborhoods/mitchell-county/.

[9] US Census Bureau, Population by Color and Condition 1860, Georgia, Table No. 2, 73. https://www2.census.gov/library/publications/decennial/1860/population/1860a-10.pdf.

[10] 1860 Federal Slave Schedule – Mitchell County, Digital Library of Georgia, https://dlg.usg.edu/record/valdosta_col10428-4799_4876.

[11] John D. Eubanks, "*Judson Larrabee Hand Biographical Sketch,*" Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries, accessed January 11, 2024.

[12] "Georgia Topographic Map," https://en-gb.topographic-map.com/map-wzcz/Georgia/?center=31.12437%2C-84.15228&zoom=15&popup=31.12708%2C-84.15333

by Confederate luminaries Robert E. Lee and J.E.B. Stuart as "noble, chivalric, gallant."[13] In a January 15, 1917 letter, John Pelham's brother, Peter Pelham, recounts the naming of the rail stop to Mrs. Oscar Twitty, a leading Pelham resident of the time:

Figure 1.6. John Pelham in West Point uniform, undated. Courtesy Wiki Commons.

"John had a classmate and friend while at West Point, who was a civil engineer after the war, and who was employed by the company building the railroad from Thomasville to Albany. He asked permission to name a station for his friend who was killed at Kelly Ford on the Rappahannock River in Virginia, March 16, 1863. He named it Pelham and the station grew to be the lovely little city of Pelham."[14]

In the early 1870s, visitors stepping off the train at the Pelham flag stop were greeted by a landscape of towering longleaf pines and an understory of wiregrass. The timber was near virgin and stretched for miles.[15] One of these visitors was 21-year-old Judson Larrabee (JL) Hand, a recent graduate of the University of Georgia.

J.L. Hand would be one of the driving forces in the development of the city of Pelham and, several decades on, in soliciting funds for a Carnegie Library for the community.

Figure 1.6. Portrait of Judson Larabee Hand displayed in Pelham Carnegie Library.

Hand settled in Mitchell County in 1872 and promptly opened a small sawmill and turpentine distillery.

Figure 1.7. The little engine that ran the sawmill for J.L. Hand, 1873. Courtesy of The Building of a Town, 14.

Although his mill burned and had to be rebuilt, his timing was fortuitous.[16] The seemingly endless forests of longleaf pine surrounding Pelham produced excellent lumber, of course, but the big demand was for a range of products called "naval stores." This included turpentine, pine tar, pitch, and rosin. North Carolina and the forests along Cape Fear River had owned this

[13] "J.E.B.Stuart," Wikipedia, https://en.wikipedia.org/wiki/J._E._B._Stuart.

[14] Margaret Spence and Anna M. Fleming, *History of Mitchell County,* (Camilla Rotary Club: 1976), 118.
[15] Rogers, 10.
[16] Ibid, 15.

market since before the American Revolution. Pine tar was the origin of North Carolina's nickname the "Tar Heel" state. But by 1870, over-harvesting had greatly reduced the resource.[17] Georgia's untapped forests beckoned and men like Hand benefited. A 1909 publication entitled "Men of Mark in Georgia" claims Hand owned some 30,000 acres of which 27,000 were virgin forest. The account also claims Hand became the South's largest naval stores operator by 1883.[18]

As Hand's business grew, the flag stop of Pelham grew with him. What began as three homes when he arrived in 1872, became a population of nearly two hundred by 1878.[19] To support his growing workforce, Hand opened a small commissary for his workforce in 1876. This too proved a wise business decision. Serving both the timber and burgeon farming industry in the area, the small commissary eventually grew to become the Hand Trading Company, the largest dealer in plantation supplies in southern Georgia.[20]

Figure 1.8. The Hand Trading Company circa 1890s. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

As the timber and naval stores business started to wane in the 1890s, Hand progressively expanded his interests into farming (melons and sea island cotton), cotton ginning, banking, fertilizer distribution, seed oil manufacturing and later, textile production. He also took partial ownership of the Flint River and Northeastern Railroad.[21]

Figure 1. 9. Hand Trading Company promotional pamphlets, 1897. Courtesy of Hargrett Rare Book and Manuscript Library / University of Georgia Libraries.

Pelham was incorporated by the Georgia Legislature as a town in 1881 and grew rapidly thereafter. An 1893 survey and plat map present a well-organized plan of numbered lots, streets, and parcels.

Figure 1.10. Enlargement - Pelham, GA Plat map "drawn for J.L. Hand May 1893". Site of JL Hand's residence, "Highland Villa" noted in red. Courtesy of Hargrett Rare Book and Manuscript Library/ University of Georgia Libraries.

[17] Robert B. Outland, *Tapping the Pines: The Naval Stores Industry in the American South*, (Baton Rouge: LSU Press, 2004), 122.
[18] William J. Northern and John Graves, *Men of Mark* (Atlanta: JB Caldwell, 1909), 244.
[19] L.D. Hand, *"A Brief History of Pelha*m," Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries, accessed January 11, 2024. 2
[20] Eubanks, 2.
[21] Ibid, 5.

In 1888, Mr. Hand erected his own home on a prominent lot in the center of town (highlighted in red – Fig 1.10.). Known as "Highland Villa," his home was an elegant Queen Anne mansion of six bedrooms, porches, parlor, servant's quarters, four baths and extensively landscaped gardens.[22] The building was demolished in the early 1970s.

Figure 1.11. "Highland Villa," the Hand family residence, undated. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

By 1900, the population of Pelham was nearly 1000; officially cited in the U.S. Census as 945.[23] Mr. Hand served as the town's first mayor and then continuous terms on the City Council until his voluntary retirement in 1916, the year of his death. He also served four terms in the Georgia State Legislature.

In 1906, two years before the Carnegie Library was constructed, the Sanborn Fire Insurance Company published a map of the Pelham Business District. Sanborn maps utilized codes and color to indicate the function and materials of buildings in a community. Yellow indicated wooden structures, for example, red, masonry. The maps aided insurance underwriters in estimating replacement costs and setting premiums. The future site of the library was unoccupied (highlighted in red below) but the business district immediately south was already well established.

Figure 1.12. Enlargement of Pelham, Mitchell Co., GA, August 1906 Sanborn Map, plate 3. Courtesy Digital Library of Georgia.

Also, of note on the 1906 Sanborn Map (Figure 1.12) is the lot directly adjacent to the future Carnegie Library (highlighted in blue). This would become home in 1914, to the newly expanded Hand Trading Company. What began as that employee commissary in 1876 eventually grew into a mammoth four-story general merchandise outlet of 100,000 square feet. Inspired by the design of Marshall Field's store in Chicago, Illinois, by the mid-1920s, the Hand Trading

[22] Hand Family and Business Records, ms4248, Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries. https://sclfind.libs.uga.edu/sclfind/view?docId=ead/ms4248.xml;query=hand;brand=default.

[23] US Census Bureau, Statistics of Population 1900. Table 8, 442. https://www2.census.gov/library/publications/decennial/1900/volume-1/volume-1-p9.pdf.

Company was billed as America's largest rural department store.[24]

Figure 1.13. Hand Trading Company Building, 1918. The 10-year-old Carnegie Library is just visible behind on the right. Courtesy of The Georgia Archives Virtual Vault.

Peeking out behind the right rear corner of the Hand Trading Company Building, in the above photograph, is the Pelham Carnegie Library. The library had been open for a decade at the time of this capture. The story of its creation and construction is part aspiration, part determination and part civic pride.

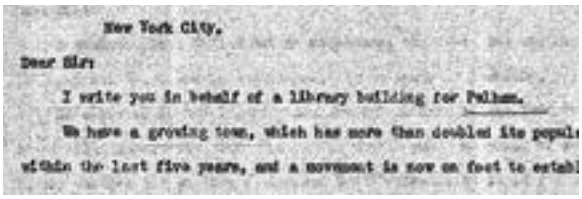
Chronology of Development and Use

On September 26, 1906, fifty-five-year-old J.L. Hand found himself a long way from Pelham, Georgia. The weather was mild by Mitchell County standards, low 70s and sunny, but the landscape of New York City's Upper East Side was dramatically different. The upper section of Fifth Avenue was known as "Millionaire's Row" because its Gilded Age mansions were ornate and enormous. Hand was certainly no stranger to wealth, but these structures represented another level. His mission that day was to call at one of the most prominent, a sixty-four-room behemoth at the corner of 5th Avenue and 91st Street. He hoped to meet with the owner's personal secretary, Mr. James Bertram. Hand was carrying four letters of recommendations, all from leading figures in Georgia including the sitting Governor of Georgia, J.M. Terrell, but his visit was a gamble. J.L. Hand was arriving unannounced at the home of one of the nation's richest men.

Figure 1.14. The building J.L. Hand arrived unannounced. The Andrew Carnegie Mansion, East 91st St., New York, NY. Courtesy of The Library of Congress.

The outcome was anticlimactic. The mansion was closed. Andrew Carnegie, the owner, was still in Scotland and thirty-four-year-old Bertram, the point man for all Carnegie library endeavors, was not available. But J.L. Hand was not deterred. He wrote Bertram the next day from Boston, introducing himself and including his letters of recommendation. This was his third time, in less than three months, Hand had attempted to breach the Carnegie bastion. A month before his New York visit, Hand had sent Carnegie an enthusiastic introductory letter about Pelham and its need for a library. There is no record in the Carnegie Corporation archives of a response.

[24] Thomas P. Hinman, "The Methods Behind a $2,000,000 Business in a Town of 3000," *System, The Magazine of Business,* September 1925, 287. Hand Family and Business Records, ms4248, Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries (Hand Family Papers, Folder 20).


New York City.

Dear Sir:

I write you in behalf of a library building for Pelham.

We have a growing town, which has more than doubled its popul

within the last five years, and a movement is now on foot to estab

Figure 1.15. Excerpt of a Letter from J.L Hand to Andrew Carnegie, July 30, 1906, introducing the town of Pelham. Courtesy of the Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

It would be several more months before Hand eventually learned he had succeeded in getting Carnegie's attention.

The presence of public libraries is commonplace today, but that is a new development relative to their long history. Centuries before Guttenberg invented movable type in the 1440s, kings and clergy spent vast sums on handwritten and illuminated texts. The Library at Alexandria, for example, is thought to have amassed over 200,000 scrolls before its demise in 275 CE.[25]

Over the centuries, libraries evolved significantly. Books were moved to shelves from their traditional storage in "stacks." Texts in languages other than Latin became common and a new genre, the novel, was eventually embraced. But two things remained constant: libraries were primarily the domain of scholars, not the public, and the "stacks" stayed inaccessible to visitors.

Much of the evolution of libraries is a European tale but a young America made several important contributions. Benjamin Franklin, with friends, is credited, in 1731, with creating the world's first subscription library known as the Library Company of Philadelphia.[26] By pooling their books and distributing them on request to paying members, who would then return the books when completed, the subscription library "gave customers for the first-time real control over the books available to them."[27]

The world's first, tax-supported free public library was also an American invention. It opened in tiny Peterborough, New Hampshire in 1833.[28] Boston followed suit in 1854, with the nation's first large community funded library before eventually building it's architecturally influential "palace to the people" in 1895.[29]

Figure 1. 16. Boston Public Library 1895. Known as the "palace of the people." Courtesy of the Boston Public Library.

Despite these "firsts", public libraries remained generally rare in the United States in the mid to late 19th century. One scholar counted only 484 nationwide in 1876, with the majority, 253, located in New England.[30]

By the turn of the century, it was an entirely different story. Over 4,300 libraries "had marched across the landscape" appearing in villages, towns, cities, and counties nationwide.[31] Scholars Michael Kevane and William A. Sundstrom charted this growth by region based

[25] Pettegree, 21.
[26] Pettegree, 245-246.
[27] Ibid, 248.
[28] Ibid, 300.
[29] Boston Public Library, "Founding," https://www.bpl.org/bpl-history/.

[30] Michael Kevane, and William A. Sundstrom. "The Development of Public Libraries in the United States, 1870-1930: A Quantitative Assessment." *Information & Culture*, vol. 49, no. 2, 2014, 117–44. http://www.jstor.org/stable/43737483. Accessed 14 Feb. 2024.
[31] Ibid, 124.

on the number of books (volumes) available per capita.

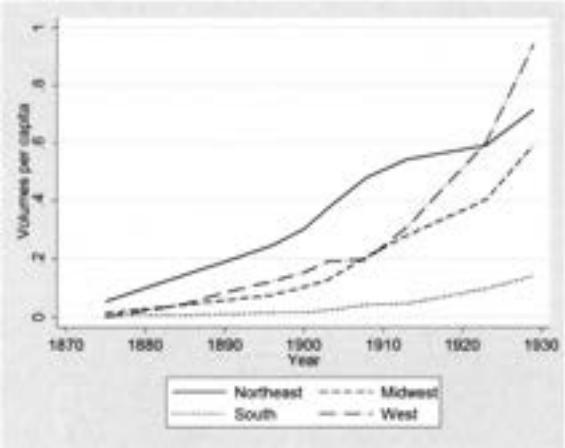


Figure 1.17. From The Development of Public Libraries in the United States, 1870-1930, A Quantitative Assessment by Kevane & Sundstrom, 'Figure 4. Volumes per capita by region.'

Many factors fed this growth, expanding populations, climbing levels of literacy, the creation of state library associations and supportive legislation. [32] Also instrumental was the social activism of local women's organizations. One 1930s scholar claimed that "75 percent of the public libraries in this country owed their origins to women's clubs."[33]

One of the most impactful factors in the growth of public libraries was Andrew Carnegie's philanthropy: $41 million (equivalent to $1.4 billion in 2024) for the construction of 1,626 libraries across 49 states. Andrew Carnegie cited his motivation for the building of public libraries as a desire make available "the precious treasures of knowledge and imagination through which youth may ascend." "I decided there was no use to which money could be applied so productive of good to boys and girls who have good within them and ability and ambition to develop it, as the founding of a public library in a community which is willing to support it as a municipal institution."[34]

Indiana received the most library grants at 165, while Rhode Island was the only state to get no public library funding from Carnegie. Georgia received twenty-four public library grants of which the Atlanta Main Branch was the first in 1898.[35]

Figure 1.18. Carnegie Library, Atlanta Main Branch 1908. Courtesy Kenan Research Ctr., Atlanta History Center.

Carnegie's contribution nationwide was epoch making. "In this clear-minded, sustained and sympathetic campaign, Carnegie truly inaugurated the golden age of the public library."[36]

Carnegie funds were abundant, but they came with strings. J.L. Hand's unanswered letter to Mr. Carnegie of July 1906 indicates he and the community of Pelham were aware funding was contingent on meeting certain conditions.

"I understand (it) is for the municipality to donate a suitable site and appropriate annually for the support and maintenance of the library 10% of your gift in the building."

[32] Kevane, 128.
[33] Paula Watson, "Carnegie Ladies, Lady Carnegies: Women and the Building of Libraries," Libraries & Culture 31, no. 1 (Winter 1996): 159-96.
[34] Andrew Carnegie, *Autobiography of Andrew Carnegie*, Cosimo Classics, 1920. 46-48.
[35] List of Carnegie Libraries, Georgia, Wikipedia, https://en.wikipedia.org/wiki/List_of_Carnegie_libraries_in_Georgia.
[36] Pettegree, 315.

While Carnegie's motives for giving are well documented, it is harder to track why communities like Pelham sought a library. To date, no primary sources have surfaced that specifically explain the community's motivation. Generally, libraries have long represented a storehouse of culture so the presence of a library in one's community symbolizes knowledge, order, and respectability. Local historian Miriam Flynt Hand wrote, for work in her master's program in 1977, that the creation of the Pelham Library was "a multiplicity of forces, including local pride, economic ability, and belief in the importance of education, converged to make the local free public library a reality."[37]

An article published on January 25, 1912, in the *Macon Telegraph*, four years *after* the Pelham library opened, recounts that city's debate about seeking Carnegie funding for a library. Though Macon was considerably larger than Pelham, the account offers a perspective on a community's motivation. A professor, Kyle Alfriend, the Atheneum Committee chair, stated libraries were necessary to "minister to the higher side of life," while another participant questioned taking "Carnegie's tainted money." Near the end of the account, the author notes that "it was a matter of amusement to contrast Macon with the little town of Pelham."[38]

Pelham was indeed a little community in 1906, technically it was too small to qualify for Carnegie funding. As dozens, if not hundreds of requests for funding crossed Secretary Betram's desk, communities with populations of less than 1000 residents were disqualified. It is interesting to note that on two of Pelham's archived correspondences the handwritten number "945" is clearly visible.

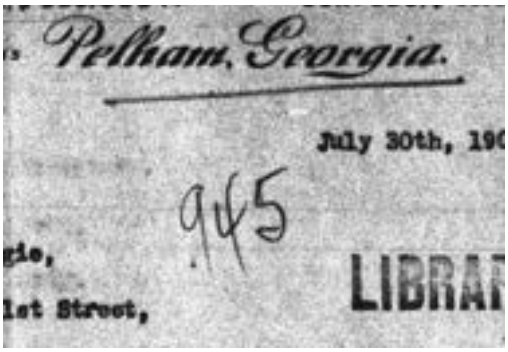


Figure 1.19. Enlargement showing handwritten notation on Letter from J.L Hand to Andrew Carnegie, July 30, 1906. Courtesy The Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

The second instance strongly suggests the significance. It may have been Bertram's personal correction of the inflated population numbers put forth on Pelham's formal application submitted November 24, 1906.

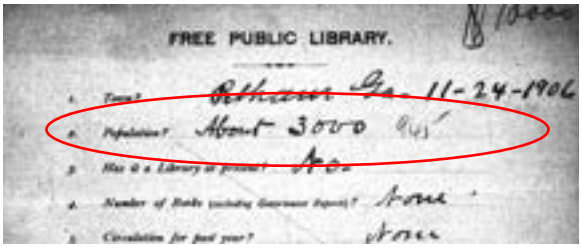


Figure 1.20. Excerpt showing "945" notation on Carnegie Library Questionnaire completed by J.L. Hand in September of 1906. Courtesy The Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

According to the current U.S. census tabulation, Pelham did not exceed a population of 3000 until after 1940. Claiming a 1906 population of 3000 was aggressive but also, perhaps, a deliberate move to keep their request in consideration. U.S. Census results for the 1900 enumeration indicate Pelham's population was exactly 945, a number Mr. Bertram appears to have known.

[37] Miriam F. Hand, "The Carnegie Library of Pelham , Georgia; The History of a Small, Free Public Library, April 1977, 1. Pelham Carnegie Library Files.

[38] Newell Mason, "Atheneum on Record for Modern Public Library," *The Macon Telegraph,* January 25, 1912.

In Mr. Hand's defense, a document published by the US Census Bureau in 1913 entitled *Statistics for Georgia* suggests Hand's estimate was not that far off the mark. By that 1910 enumeration, Pelham had a population of over 2,800.[39]

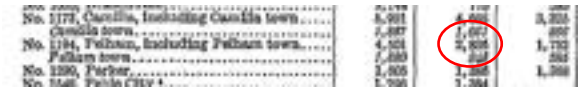
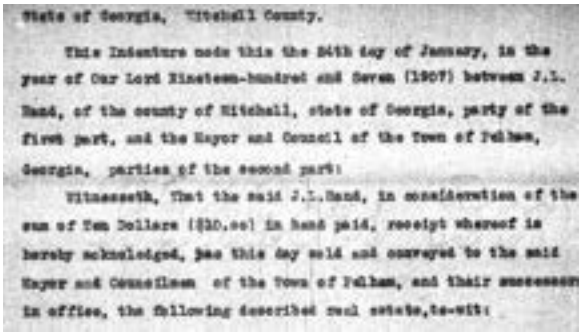


Figure 1.21. Excerpt - 13th Census of The United States, Statistics for Georgia, published 1913. Courtesy the United States Census Bureau.

In any case, the discrepancy did not derail Pelham's application. By late fall 1906, Mr. Hand must have received word his request for library funding was under consideration. He had been working with Pelham's mayor, H.H. Merry, and the City Council, of which he was a member, to draft an ordinance for funding the city's $1,000 per annum maintenance commitment. He had also noted on the Carnegie questionnaire a "most suitable site has been secured and will be donated by Citizens."

The site was indeed suitable, being located directly across the street from Hand's home. And the "citizens" he noted were none other than himself, who would later transfer the land to the city for $10 in a deed dated January 24, 1907.



State of Georgia, Mitchell County.

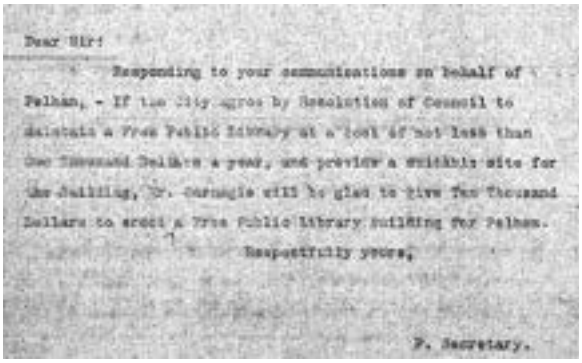
This Indenture made this the 24th day of January, in the year of Our Lord Nineteen-hundred and Seven (1907) between J.L. Hand, of the county of Mitchell, state of Georgia, party of the first part, and the Mayor and Council of the Town of Pelham, Georgia, parties of the second part:

Witnesseth, That the said J.L.Hand, in consideration of the sum of Ten Dollars ($10.00) in hand paid, receipt whereof is hereby acknowledged, has this day sold and conveyed to the said Mayor and Councilmen of the Town of Pelham, and their successors in office, the following described real estate,to-wit:

Figure 1.22. Deed for sale of library plot from J.L Hand to Town of Pelham for $10, January 24, 1907. Courtesy of Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

On December 13, Bertram's concise note made it official. Pending fulfillment of the required city funding and land,

"Mr. Carnegie will be glad to give Ten Thousand Dollars to erect a Free Public Library Building for Pelham."



Dear Sir:

Responding to your communications on behalf of Pelham, - If the City agree by Resolution of Council to maintain a Free Public Library at a cost of not less than One Thousand Dollars a year, and provide a suitable site for the building, Mr. Carnegie will be glad to give Ten Thousand Dollars to erect a Free Public Library building for Pelham.

Respectfully yours,

P. Secretary.

Figure 1.23. Letter from J. Bertram to J.L. Hand dated December 13, 1906, announcing Mr. Carnegie's grant of $10,000 to the City of Pelham. Courtesy of Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

Hand sent out an appreciative thank you note two days later on December 15, 1906. In its second paragraph, he asks the question many recipents may have asked;

"Will you kindly inform me whether it is customary for Mr. Carnegie to furnish plans for the building?"

[39] U.S. Census Bureau, Supplement for Georgia 1910, Table 2, 594. https://www2.census.gov/library/publications/decennial/1910/abstract/supplement-ga.pdf.

The answer was no but design considerations were likely discussed when Hand traveled back to New York for a meeting with Bertram in January of 1907.

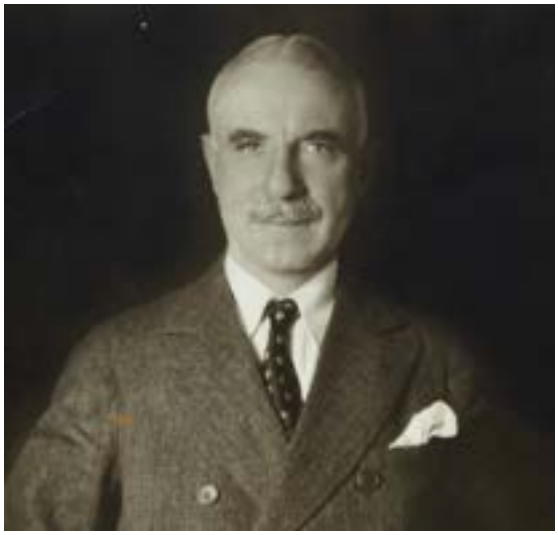


Figure 1.24. James Bertram, Carnegie's personal secretary, supervised the Carnegie library building program. Courtesy of the Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

That Carnegie or Bertram did not provide explicit design parameters for his libraries, at least until the publication of Bertram "Notes on the Execution of Library Buildings" in 1911, is evident from a cursory glance at six of the eight Carnegie libraries constructed in Georgia *prior* to Pelham.

Figure 1.25. Six of the eight pre-Pelham Carnegie Libraries in Georgia showing a variety of exterior designs. From upper right clockwise, Dublin, Cordele, Newnan, Atlanta Wallace, Montezuma, and Albany. Images courtesy of Wiki Commons.

Although many embody architectural elements of neoclassical revivalism and Beaux Arts design, their appearance and massing vary greatly.

Starting in 1904, twenty-one years after the grant program began, Bertram and R. A. Franks, his colleague, and the treasurer for Carnegie's grantmaking, began reviewing recipient building plans. By 1908, Bertram's approval of building plans was required for a project to move ahead. Architectural historian Abigail Van Slyck suggests in her study of Carnegie libraries entitled "Free to All" (1996) that Bertram believed excessive design "was apt to get in the way of effective library planning." According to Bertram,

"almost every community which received a donation from Mr. Carnegie in years gone by to erect a library bilding, came back with the plea that they had used the mony in the bilding and

had no mony left to purchase bookstacks or furniture."[40][41]

The plans for the Pelham library arrived at the Carnegie offices in August of 1907. A handwritten note from the project architect, Thomas William (T.W.) Smith was attached.

Figure 1.26. Pelham's Architect T.W. Smith's cover note to R.A. Franks, Carnegie's Treasurer, dated August 2, 1907. The note accompanied the first set of plans Smith submitted to Carnegie for review. Courtesy of the Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

Located in Columbus, Georgia, Smith & Company were well known throughout the state for numerous large-scale municipal, railroad, and religious buildings.[42]

Figure 1.27. Georgia Board of Architects, 1919. T.W. Smith highlighted. Courtesy of Kenan Research Ctr., Atlanta History Center.

The historic record does not include correspondence showing Bertram and Frank's written response to Smith's plans but a letter, dated ten days after the plans arrived in New York, from Pelham Mayor H.H. Merry to Mr. Franks, indicates the Carnegie response had not been entirely favorable.

"It has never been contemplated by us to use the "Auditorium" of this building for any purpose other than one that would be entirely appropriate to such a building."

Merry's letter addressed T.W. Smith's plan for an auditorium and stage on the second floor of the library.

[40] Abigal A. Van Slyck, *Free to All: Carnegie Libraries and American Culture, 1890-1920* (University of Chicago Press, 1996), 34.

[41] Mr. Carnegie and Mr. Bertram followed the tenets of the National Simplified Spelling Board which operated from 1906 to 1920 and was funded by Mr. Carnegie. The goal was to simplify language and eliminate unneeded, particularly silent, letters. An example is the word "building" to which they shortened to "bilding."

[42] Historic Columbus, "Waverly Terrace," http://www.waverlyterrace.org/images/PanelDTWSmith.PDF.

Figure 1.28. Detail of proposed auditorium and stage from T.W. Smith & Company original blueprints for Pelham Library. Courtesy the City of Pelham.

Merry pointed out that the town already has a spacious city hall stage "where all amusements are held." He further assured Mr. Frank that the "Dressing rooms" will be eliminated and "the raised stage will also be eliminated if you so advise."

Fig. 1.29. The Pelham City Halll, erected in 1900, had a second-floor auditorium "where all amusements were held." From The Building of a Town, 169.

A close inspection of the building in 2024 strongly suggests changes were made to Smith's original plans. Two masonry footings along the south wall were not laid, as called for on the original foundation plan and, while framing timbers visible in the attic indicate the 2nd floor could have accommodated the open span of the auditorium and perhaps a stage, there is no evidence they were ever were constructed.

Bertram and Frank's objection to a auditorium in Pelham may have been a combination of factors. He may have seen a large auditorium as a non-library related use. As subsequent correspondence in the archives shows, Bertram was very clear:

"there should be no question as to what uses the library building is to be put. The conscience of those managing the affairs of the Library Bilding will tell them explicitly where library work ends and where what has nothing to do with library work begins."[43]

It is interesting that two other Carnegie Libraries in Georgia, Americus and Moultrie, were constructed with second floor auditoriums yet Bertram objected to Pelham's proposal. Perhaps he recognized that the proposed design was never intended to be an integral part of the library space. Anaylsis of the drawings shows the only access to the upper floor was located on the other side of a substantial doorway over thirty feet from the librarian's desk. This distance alone would make controlling access to that upper floor very difficult for a librarian.

Bertram's objection may have also been colored by his general aversion to architectural grandiosity – as he preceived it.[44] If so, he had an ally in the American Library Association which, since 1876, had become increasingly vocal about what constituted a functional library building. The debate was less about appearance and more about how the interior was configured.

Before the explosion of publicly funded libraries in the U.S., most were gifts of wealthy benefactors who reveled in their role as cultural

[43] James Bertram to J.W. Parker, "Carnegie Public Library, Pelham, Georgia." Correspondence. April 9, 1912. Columbia Digital Library Collections, Columbia University Libraries.

[44] Van Slyck, 35.

patriarchs. This led to grand, celebratory, high style buildings on the model of noted American architect Henry Hobson Richardson.

Figure 1.30. The Romanesque Woburn Public Library designed by Henry Hobson Richardson, 1881. Courtesy of The Woburn Public Library.

Inside these Richardsonian Romanesque buildings, however, were a maze of partitioned rooms, reading nooks, alcoves and, perhaps most puzzling, limited natural sunlight.[45]

Figure 1.31. The Woburn Public Library Main Reading Room. Note numerous side rooms and passageways. Difficult for a librarian to monitor and serve from a central desk. Courtesy of The Woburn Public Library.

For the emerging field of professional librarians, a field increasingly open to women, managing this kind of environment and serving their patrons efficiently, was challenging.

A librarian for the Denver Public Library, John Cotton Dana, as well as the American Library Association, became leading national voices for reform. Dana strongly advocated an open floor plan and most radically, opening the stacks to the public.

"Let the shelves be open, and the public admitted to them, and let the open shelves strike the keynote of the whole administration. The whole library should be permeated with a cheerful and accommodating atmosphere."[46]

T.W. Smith's plans for Pelham incorporated some of these changes. His design called for open reading rooms which allowed the librarian to see the entire public space from the central desk. Windows were also abundant, and they were large, almost seven feet tall. But the stacks were still isolated from the public and no accommodation was made for children. Notice how the stack room is located *behind* the delivery desk on Smith's plans.

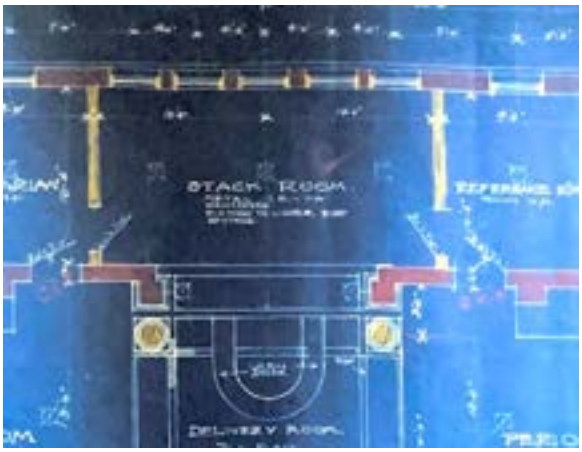


Figure 1.32. Detail of stack room behind "delivery room" from T.W. Smith & Company original blueprints for Pelham Library. Courtesy of the City of Pelham.

[45] Theodore Jones, *Carnegie Libraries Across America: A Public Legacy* (John Wiley & Sons, 1997), 56.

[46] Stuart Murray, *The Library: An Illustrated History*, (Skyhorse, 2012).

Bertram and Frank's approval of the revised plans came on August 16, 1907, and construction began promptly. According to Miriam Flynt Hand's research, the "principal part of the construction was done by M. D. Watson and Company of Lumpkin, Georgia."[47] The total construction expense was tallied at $12,279 with the final funding coming from J.L. Hand himself.

In March of the following year, Mayor H.H. Merry proudly sent Carnegie a picture of the nearly completed library in Pelham. The exact image he shared is unknown, but the earliest surviving picture shows a crisp building with a narrow surrounding hardscape bounded by dirt streets.

Figure 1.33. Earliest known photograph of Pelham Carnegie Library. Precise date unknown but the empty adjacent lot on left will become the site of the Hand Trading Company building in 1914 so photo precedes that date. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

The city ordinance stipulating $1,000 a year of support (10% of the Carnegie Grant) was formally passed on March 4, 1908, and a seven-member Library Board of Trustees was appointed by the City Council. Their first order of business was selecting a librarian for a salary of $500 per year.

Their choice was 49-year-old Alice Joseph Barrow. She was the younger sister of J.L. Hand and had lived in Pelham for 15 years. Her husband, Thomas Barrow, was an "outstanding Baptist minister" and farmer. [48]

Figure 1.34. Long-time librarian Alice Barrow and her son. Date unknown. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

A mother of two sons but a widow since her husband's passing in 1897, Ms. Barrow would become the heart and soul of the new library and would ultimately serve in her role for thirty-six years, the library's longest serving librarian. Her obituary from the *Pelham Journal* noted she "kept the shelves filled with up-to-date literature and was always prompt in securing the best sellers." It also describes her as "always eager and anxious to aid school children with their reading problems."[49]

An undated early photograph of the library, taken when the Hand Trading Company was under construction, captures a woman posed comfortably at the front entrance. The image resolution is poor, but her appearance resembles Mrs. Barrow.

[47] Miriam Hand, 3.
[48] "Death Claims Beloved Lady," *Pelham Journal*, April 21, 1949.
[49] *Pelham Journal*, April 21, 1949.

Figure 1.35. Enlargement - Carnegie Library entrance with woman at door, likely Mrs. Alice Barrow, the librarian for thirty-six years. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

Figure 1.366. Mrs. Barrow leaving for work at library. Courtesy of Hargrett Rare Book and Manuscript Library / University of Georgia Libraries.

A faded and undated image in the Hand Family Papers at the University of Georgia's Hargrett Rare Book and Manuscript Library has the handwritten note "Grandmother Barrow on her way to the library after dinner." It was not a long journey. Both the 1900 and 1910 US Census Schedules for District 1194 indicate she lived on Hand Avenue directly adjacent to the library. Alice lost her husband at age 38 but went on to raise her two sons as a working single mother in a modest home that still stands. Though modified over the years, a small plaque in front of the building indicates its name: "Barrow Apartments."

Figure 1.37. The Barrow home next door to the library still stands. Photo by author.

The Pelham Carnegie Library officially opened to the public on Wednesday, July 1, 1908. The *Pelham Journal* account notes "During the day there were many callers at the building who looked over the building and the books and signed application cards." The article notes that Mr. J.L. Hand submitted the first application card.[50]

The year the library opened, 1908, the City of Pelham commissioned a panoramic illustration of the community. These bird's eye views were common promotional tools in the late 19th and early 20th centuries. The newly christened library is clearly visible in the center of town.

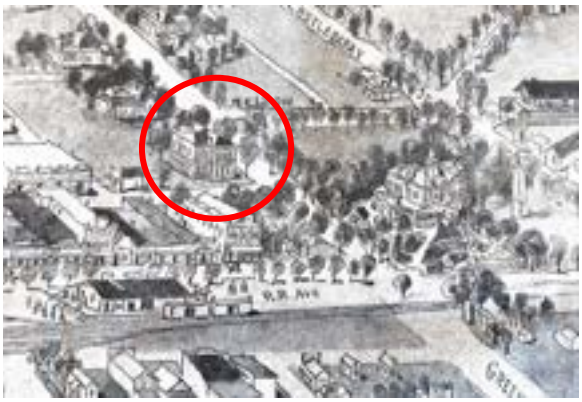


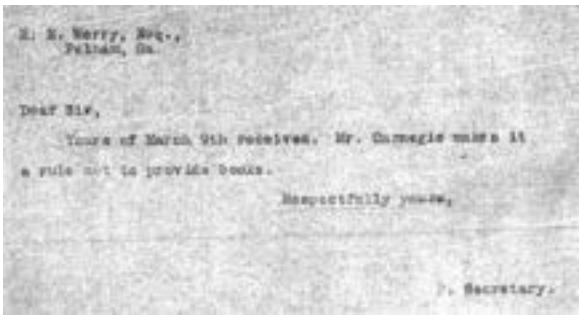
Figure 1.38. Enlargement - Birds eye view, Pelham, GA 1908. The newly erected Carnegie Library is highlighted in the center. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

[50] "The Carnegie Library Opened Wednesday," *Pelham Journal*, July 3, 1908.

The margin of the panoramic map features several of the town's notable buildings, among them close-ups of the library and Mr. Hand's residence "Highland Villa".

Figure 1.39. Buildings featured on margin of 1908 Bird's Eye illustration. Hand residence on left, Carnegie library on right. Courtesy of Hargrett Rare Book and Manuscript Library / University of Georgia Libraries.

The historical record indicates that there was some doubt, before the library opened, about whether it would have any books on opening day. The mayor's letter of March 8, 1908, which mentioned the photograph, also inquired if Mr. Carnegie would be willing to make a further donation of "$5,000 to purchase books."[51] The preceding paragraphs of the mayor's letter detailed how all of Pelham's funds had been expended on construction. Bertram's two sentence response was swift and clear. "Mr. Carnegie makes it a rule not to provide books."



H. H. Merry, Esq.,
Pelham, Ga.

Dear Sir,

Yours of March 9th received. Mr. Carnegie makes it a rule not to provide books.

Respectfully yours,

, Secretary.

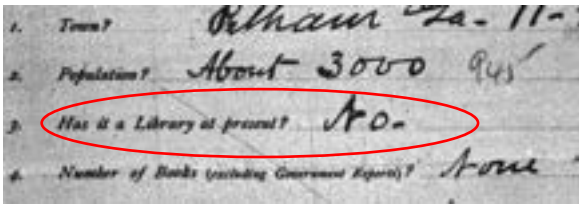
Figure 1.40. March 13, 1908, letter from J. Bertram to Pelham Mayor H.H. Merry declining request for additional book funding. Courtesy of The Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

Undeterred, just three days later, the mayor asked again for an additional $5,000 claiming it would be applied to the overage in construction costs thus enabling Pelham "to use the amount raised by local contribution for the purchase of books". Bertram's response effectively closed the door to further discussion,

"Mr. Carnegie considers that the sum he provided was ample for the erection of a suitable library building for Pelham and does not see his way to increase it."

According to Miriam Flynt Hand's research, a scramble ensued to raise funds for acquiring books before the opening date. Over $800 were collected by various means including "ice cream parties and a bazaar at which oysters were served."[52]

Another interesting fact Mrs. Hand uncovered in the library's Acquisition Log, was the donation of "255 books received from the Pelham Public Library on April 4, 1908."[53] This implies Pelham had a public library *before* the Carnegie was built. While no evidence to that point has surfaced, if true, then J.L. Hand's original application answer of "No" might have been another example, like the population number, of pro-active reporting.



1. Town? Pelham
2. Population? About 3000
3. Has it a Library at present? No.
4. Number of Books (excluding Government Reports)? None

Figure 1.41. Enlargement – J.L. Hand's application to Carnegie of September 1906 answering "No" to 'library at present' question. Courtesy of The Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University.

[51] H.H. Merry to James Bertram, "Carnegie Public Library, Pelham, Georgia." Correspondence. March 8, 1908. Columbia Digital Library Collections, Columbia University Libraries.

[52] Miriam Hand, 4.
[53] Ibid, 6.

The *Pelham Journal* reported in its July 3rd, 1908, Grand Opening coverage that the public would have their choice of over 1,000 books and numerous periodicals. That number climbed rapidly in the subsequent years to 5,224 titles by 1923.[54]

Nearly two years after opening, a *Pelham Journal* article (April 8, 1910) about the "handsomest library" notes "much gratification" "that it is reaching in its direct influence into nearly every home in town and is being used by the children of the schools."[55] This observation omits one important fact. The Pelham Library existed in a landscape defined by racial segregation.

The 1910 US Census for Mitchell County indicates 51% of the population was African American. The percentage living in and around Pelham at that time is unknown. No records to date have surfaced that indicates if African Americans were permitted to use the Pelham library prior to desegregation. Despite diligent efforts to explore the historic record, no mention of their role as builders, craftsmen, custodians, or patrons could be found. Furthermore, because Georgia's segregation laws persisted for decades after the library opened, Black Americans living in Pelham were not considered part of the community for which this 'public library' was made available. It is currently unknown when African Americans were permitted to use the library. Hopefully, future research can correct this omission and shed light on their contributions.

In the months and years following the opening, the library's popularity and circulation numbers steadily increased. The building's second floor hosted regular civic group meetings although doubt persisted for years about whether Pelham's use of that space was acceptable. The next to last correspondence in the Carnegie archives pertaining to Pelham is a letter dated February 21, 1930, some twenty-two years after opening, indicating "a question has arisen over the use of the assembly room." [56] Bertram's response was typically withering.

"The line between what is a legitimate use of such a room and what is not, can only be drawn by those managing the institution, and the line should not be found difficult to draw correctly if those concerned do so in good faith."[57]

Good faith is exactly what the Pelham Carnegie Library has delivered, day in and day out, week after week, decade after decade, for over a century. The determination of J.L. Hand and others, on behalf of their young aspiring town, created a legacy that continues to bloom. This building is a remarkable, functional link to the past, a living heirloom of memory and purpose. Every day that citizens climb those steps to find a book, access a computer, seek some help, or just relish a moment of quiet, the gift of past generations is renewed and given forward. This building is more than just an historic ornament, it is a vital shared pillar of a caring community.

Setting, Site and Landscape Features

The Carnegie Library is located at 200 Hand Avenue West in the center of Pelham, Mitchell County, Georgia. The .16-acre lot, tax parcel number P0170-219-000, is roughly a

[54] Ibid, 7.
[55] *The Pelham Journal,* April 8, 1910, 8.
[56] Beverly Wheatcroft to James Bertram, "Carnegie Public Library, Pelham, Georgia." Correspondence. February 21, 1930. Columbia Digital Library Collections, Columbia University Libraries.
[57] James Bertram to Beverly Wheatcroft, "Carnegie Public Library, Pelham, Georgia." Correspondence. February 26, 1930. Columbia Digital Library Collections, Columbia University Libraries.

parallelogram bounded on the north by Hand Avenue West, on the east by MacLaughlin Street, to the west by a strip of land owned by The Neadom Palmer Revocable Trust and to the south by the lot housing the former railroad depot currently owned by Mitchell County Community Family Affairs. The building footprint (modern addition included) occupies 72% (3,896 square feet) of the parcel.

This landscape has evolved significantly since the building opened in 1908. The roads have been paved, sidewalks installed, the Hand family home across the street was demolished and the Hand Trading Company was constructed on the opposite side of MacLaughlin Street in 1914.

Figure 1.42. Carnegie Library, tax parcel ID PO170-219-000, aerial view 2022. Courtesy of q.public.net/ESRI.

Additionally, the Flint River and Northeast Line Railway, which ran directly adjacent to the library on the west side of the building and is depicted in the 1914 Sanborn map, was abandoned in 1946.[58] It is unknown when the tracks were removed.

Figure 1.43. Enlargement - Pelham, Mitchell Co., GA, January 1913/ Sanborn Map, plate 3. Note the railroad tracks and yellow passenger platform. Courtesy Digital Library of Georgia.

An undated postcard captures the covered passenger platform that once stood where the modern addition now stands.

Figure 1.44. Undated postcard of Flint River & Northeastern Railroad Depot with Carnegie Library behind. The modern addition to the library now occupies the space at the end of the passenger platform. Courtesy of the Mitchell County Genealogical Society.

Presently, on the building's northern side, a nine-foot concrete sidewalk separates the building from the street. The sidewalk is elevated above the street grade 4" and is crossed with an ornamental stack bond red brick strips measuring 22" in width.

[58] Explore Rail History, Railways by Location (2022) 60 https://explorerailhistory.com/wp-content/uploads/2022/09/RR-Terminus-City-State-Country-120.pdf

Figure 1.45. North border of property looking east. Photo by author.

The east side of the property is bounded closely by MacLaughlin Street and does not have a sidewalk.

Figure 1.46. East border of property along MacLaughlin Street looking north. Photo by author.

The southern side of the property is roughly bounded by a vinyl and chain link fence. The vinyl fence measures 7'8" high and the chain link fence measures 42". On the library side of the fence line are old parking stops which suggests the fence is not an accurate property boundary. The ground between the fences and the building is overgrown and largely unmaintained.

Figure 1.47. South border of property along rail depot parking lot fence. Photo by author.

The western side of the property has the largest patch of open ground. It contains a concrete walkway for the building's west entrance and a landscaped courtyard.

Figure 1.48. Western border of property with landscaping. Photo by author.

The foliage on the property is a combination of ornamental plantings and several high canopy trees. The magnolia tree to the east and what appears to be a loblolly pine tree to the south are currently in contact with the building façade. During inspection, squirrels were observed using these trees to access upper levels of the structure.

Figure 1.49. High canopy trees along southern elevation. Magnolia (yellow) and a probable loblolly pine (red) are contacting the building and being used by squirrels. Photo by author.

The topography of the site is generally favorable for drainage. From the highest point on the property, in the northeast corner, the lot slopes east to west and north to south. A city street sewer drain is located below the edge of the northern sidewalk. The western edge of the property is also crested providing drainage slopes to the north and south.

Architectural Description

This symmetrical two-story Classical Revival-style building was constructed between 1907-1908. Designed by T.W. Smith and Company of Columbus, Georgia, the historic building is a mass masonry structure comprised of a central block with projections on the north and south facades. In 1996, a modern, full height, annex was added to the west façade of the historic building. The artificial stucco finish of this annex mirrors in color the buff brick exterior of the historic structure, but the overall appearance of the addition is asymmetric.

The foundation of the building is masonry. A four-wythe brick perimeter wall supports the historic structure and a one-wythe Concrete Masonry Unit (CMU) wall is located beneath the annex. A limestone water table runs the circumference of the historic structure and is continued around the modern addition in a simulated stucco finish.

North Façade

The historic front (north façade) is five bays wide. Windows of the main block contain a double hung one-over-one window surmounted with an amalgamated copper hood on the first floor and a double hung one-over-one window on the second story. The projection has blind windows on the first story surmounted with amalgamated copper hoods flanking the front entrance. The main portal is comprised of a double door configuration each with two recessed panels topped with single glass panes. A single transom glass pane caps the double doors and is topped by a small, amalgamated copper pediment with dentil molding. A symmetrical set of windows comprises the fifth bay and contains a double hung one-over-one window surmounted with an amalgamated copper hood on the first floor and a double hung one-over-one window on the second story. The second floor of the projection contains one-over-one double hung windows above the blind windows and a paired set of one-over-one double hung windows above the front entrance.

A limestone belt course runs below the first story windows. Brick belt courses run above and below the second story windows. Those running below the windows demarcate the first and second floors. The upper brick belt course forms the architrave of the entablature. A smooth frieze above the upper windows contains the CARNEGIE LIBRARY lettering. A deep copper cornice completes the entablature with elaborate dentil molding that encircles the building just below the crossed hipped roof clad in gray asphalt shingles.

From the sidewalk, one ascends, approximately 40" to the main doors on a combination of limestone and concrete steps which are flanked by brick cheek walls topped with limestone. The front entrance is flanked by 21' smooth, paired columns *in antis*. The terra cotta column capitals are Scamozzi Ionic.

Moving west, the main block transitions to the annex via a one bay hyphen that is recessed nine feet from the historic block and is EIFS clad.[59] The water table is replicated from the historic block though its continuation on the annex is articulated in EIFS.

Centered in both the first and second story walls of the hyphen are single 2' x 2' square casement windows with a starburst muntin configuration simulating eight panes. The north elevation of the annex is a two-story, four-bay configuration with string and belt courses continuing from the historic block. There are projecting cheek walls that anchor the mass of the addition. Fenestration includes paired one-over-one double hung windows surmounted with paired square casement windows and capped with paired quarter round casement windows, arched right and left. This fenestration pattern rises the full height on the elevation and is flanked by the single square casement windows with starburst muntins. The wall height of the addition is compatible with the historic structure, but the gabled ridge of the hyphen and hipped ridge of the annex are lower than the historic roof line.

West Facade

The west façade begins with the historic building return wall of the north projection. Here, there is a single casement window on both the first and second stories. Profiled jack arches top these two windows. Next, one moves to the six-bay west façade of the addition. Here, the ADA-compliant entrance to the building is present with a ramp on the southwest side. Four steps are present on both the north and west access points. Door and fenestration configuration are comprised of two doors, each with one recessed panel on the bottom top by a single glass pane. The doors are surmounted with stacked square casement windows capped with quarter-round casement windows. This grouping is flanked by single one-over-one double-hung windows on the first floor and double 2' x 2' square casement windows with the sunburst muntin pattern flanking the quarter round windows just below the entablature. The west façade concludes with the return wall of the south projection that has a one-over-one double hung window with security bars on the first floor with the same above it on the second floor though without security bars.

South Facade

Beginning with the four-bay EIFS clad addition, the fenestration repeats that of the north façade as well as on the one-bay hyphen. The historic block begins with a one-over-one double hung window with security bars on the first floor and a metal fire door topped with a single glass pane transom on the second floor. This exit leads to a two-story metal stair fire escape. The south projection of the historic block is comprised of

[59] EIFS is a type of cladding technology detailed in the Conditions Assessment section of this report.

seven one-over-one double hung windows topped with jack arches on the first floor with four one-over-one double hung windows topped with jack arches on the second story. String and belt courses plus the water table continue in brick and limestone as previously mentioned.

East Facade

The five-bay east façade continues with single one-over-one double hung window on both the first and second floors of the return wall of the south projection. The historic block has three one-over-one double hung windows with amalgamated copper hoods on the first floor and three undecorated one-over-one double hung windows on the second floor. On the return wall of the north projection, there is a single casement window on both the first and second stories. Profiled jack arches top these two windows. String and belt courses plus the water table continue in brick and limestone as previously mentioned.

Assessment of Significance

Determining the significance of a structure is the process of identifying what makes it unique. Put another way, it is the process of articulating what the site or object can communicate about the past to future generations of Americans. Since the inception of the National Register of Historic Places in 1966, this calculation has been driven by a two-part assessment: is the site or object historically significant and does the site possess integrity?

The criterion for evaluating historic significance, as employed by the National Park Service who are the stewards of the National Register listings, has four categories of consideration:

Criteria A *Is the site associated with events that have made a significant contribution to the broad patterns of our history?*

Criteria B *Is the site associated with the lives of persons significant in our past?*

Criteria C *Does the site embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction?*

Criteria D *Has the site yielded, or may be likely to yield, information important in prehistory or history*?

Understanding how and if a property fits this criterion is the essence of determining historic significance. Notice, for example, that just being "old" does not automatically qualify a property for significance. Nor does it matter that a famous person like George Washington or FDR or MLK once slept there. On the contrary, fulfilling just one of these criteria requires a thoughtful and exhaustive examination of the surviving historical record and finding proof that something significant transpired there. Myths and stories do not qualify, only provable evidence sifted through the criteria makes a site eligible for listing on the National Register.

Given this rigorous appraisal, how would the Pelham Carnegie Library be evaluated based on the National Register criterion?

Criteria A: This site is associated with a significant national trend; the rise of publicly operated, free libraries in the early 20th century. This era democratized public access to books and periodicals in cities and towns across the country by putting "the needs of readers and librarians

ahead of the glorification of donors and trustees."[60]

Criteria B: Andrew Carnegie is a well know historical figure and his philanthropy toward public library financing is well documented. This building is a manifestation of that generosity. "By 1917, Carnegie had promised 1,679 libraries to 1,412 towns at a cost of well over $41 million."[61]

Criteria C: This building embodies a Classical Revival style common to public structures, particularly libraries, churches, and city halls between 1895 and the early 1940s. In the chronology of Carnegie libraries, however, it was among the first to have its blueprints personally approved by Carnegie's secretary James Bertram. Bertram's aversion to architectural flourishes like grand staircases, high ceilings, and entry columns, several of which he approved for Pelham, would ultimately lead to the publication of his "Notes on the Erection of Library Buildings" (1911) which dramatically altered the appearance and interior floorplan of all subsequent Carnegie funded libraries.

Criteria D: There is little evidence that the site holds valuable pre-history or buried historical artifacts.

Period of Significance

The Pelham Carnegie Library has operated continuously as a public library for nearly 116 years. Although its services have evolved over the decades, its most representative period of significance was its first fifty-four years, between 1908 and 1962, when it became a member of the Mitchell-Baker-Worth Regional Library network now known as the De Soto Trail Regional Library System. This affiliation expanded the circulation through inter-library loans and qualified the Pelham library for state and federal funding initiatives. Prior to this, the library was entirely supported by the community.

Description and Chronology of Modifications

There have been numerous modifications to the building over the years. The first repair, as noted in Miriam Flynt Hand's history of the building, was the correction of a leaky roof. Based on an undated early photograph, this original roofing was likely terra cotta or slate tiles.

Figure 1.50. Enlargement – Undated early photo shows tile roofing, likely terra cotta or slate. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

Twenty years later, a March 8, 1936, article in the *Macon Telegraph and News* noted work "will begin immediately on the interior of the Pelham Carnegie Library."[62] The exact nature of these repairs is unknown. The building was also closed for a period in 1965 "primarily to update the electrical wiring and fixtures and to modify the original shelves."[63] Although not confirmed, three of those "original shelves" may be found on the second floor of the library. Their materials, joinery, detailing, and finish strongly suggest they are historic.

[60] Pettegree, 314.
[61] Van Slyck, 22.
[62] "Work Will Begin on Pelham Library," *Macon Telegraph and News,* March 8, 1936.
[63] Miriam Hand, 5.

Figure 1.51. One of three historic bookshelves on the second floor. Photo by author.

At some undetermined point, the ~ 3' high brick and zinc balustrade sitting atop the north façade of the building was removed and not reconstructed.

Figure 1.52. Enlargement – Undated early photo shows balustrade atop north elevation. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

At possibly the same time, the original copper cornice and the box gutter may have been rebuilt, replaced or relined. All these elements were replaced/repaired again in 2016 when the entire building was re-roofed for $88,500 by Tip Top Construction.[64]

In the mid 1990's, likely finished in 1996, an annex was added to the west side of the building.

Figure 1.53. The 1990s addition (highlighted in yellow) expanded the western side of the historic building. Photo by author.

This full height addition added over 1,200 square feet of useable space to the building. The annex was comprised of a two-story hyphen which was equipped with two restrooms on each floor. The two-story 900 square foot room is accessed on the 1st floor. This also provides a second public entrance to the building including an ADA-compliant ramp and doorways.

As a part of the annex project, all the windows on the west elevation of the historic block and their ornamental hoods were removed.

[64] Signed contract dated May 12, 2016 (Pelham City Hall)

Figure 1.54. Enlargement - Undated postcard of Flint River & Northeastern Railroad Depot. Note the original windows and hoods removed for the 1990s expansion. Image courtesy of Mitchell County Genealogical Society.

The center windows on each floor of this elevation were enlarged to serve as an interior doorway or portal between the old building and the addition. The 2nd floor window in the southwest corner of the historic building was also enlarged to accommodate the fire escape doorway. Analysis of the building's mechanical systems suggests the building also received a significant electrical upgrade at this time with the installation of a new 400-amp service and many circuits rewired. The electrician circuit card is dated December 30, 1996.

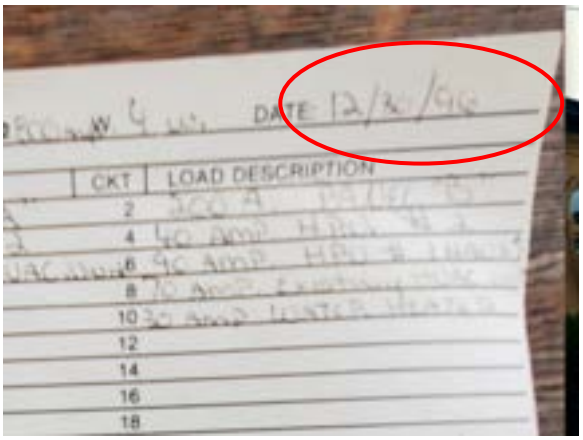


Figure 1.55 Electrician's circuit card in "B" subpanel on second floor dated December 30, 1996. Photo by author.

Additionally, several of the HVAC (heating, ventilation, and air conditioning) units which serve the building date from this period.

Finally, it is not confirmed but the staff bathroom on the first floor and the partition wall and closet on the second floor may have been added during this project.

Figure 1.56. Second floor walls and closet (highlighted) likely added during 1990s expansion/renovation. Photo by author.

Close inspection of these elements shows the presence of non-historic drywall finishes, modern trim profiles, and dimensional characteristics consistent with nominal 2" x 4" wall depths. One unsolved mystery is why a 2" x 4" wall was added (noted in Figure 1.56 with red arrow) to the length of the interior south wall. This wall runs from the edge of the utility closet on the east side, to the fire escape door on the west side. It accommodates the historic doorways which date from the building's construction and a peek inside the back side of this wall indicates historic 2" x 6" wall studs are still present behind the modern framing and finish.

Figure 1.57. Historic 2" x 6" framing, plaster, and lath inside and/or behind the non-historic wall on second floor. Photo by author.

Evidence of other modifications was discovered during research and site evaluation. The exact dates of these modifications are unknown.

At some point, perhaps to accommodate road paving or sidewalk construction, the finish grade on the north elevation was lowered in front of the building. An undated early photograph shows just four steps up from the sidewalk, while a contemporary image shows portions of six.

Figure 1.58. Early photograph, undated, (top) shows four risers to entry level while contemporary image (bottom) shows portions of six. Date of this modification unknown.

The current casement windows on the stairway sidewalls are not historic, although some of the frames are. In the oldest photograph of the library, an enlargement of one of these casements on the east side of the foyer shows the muntins in a converging starburst eight-light pattern.

Figure 1.59. The non-historic casement window on the stairway east wall. Photo by author.

Figure 1.60. Enlargement of undated early photograph shows starburst muntin pattern on the window in the stairway east wall. Image courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia Libraries.

The contemporary casements in the foyer do not exhibit this grid. It is interesting to note, however, in the 1990s addition, the most prevalent casement design is a re-expression of this starburst eight-lite pattern. These modern windows are dimensionally smaller than the historic casements and are actually Simulated Divided Light (SDL), but compliments are due to the architect for reiterating this historic detail.

Figure 1.61. The modern casement starburst design used widely in the addition. Photo by author.

Figure 1.62 provides a floor plan overview that indicates where known modifications were made.

Figure 1.62. Pelham Carnegie Library Known Modifications indicated in red.

Assessment of Integrity

Historic integrity is the capacity of a building, site, or landscape to convey its historical significance. The National Register Criteria for Evaluation has seven aspects which address different facets of the structure and its immediate environment.

1. **Location** is the place where the historic property was constructed or the place where the historic event occurred.
2. **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
3. **Setting** is the physical environment of a historic property.
4. **Materials** are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. **Workmanship** is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. **Feeling** is a property's expression of the aesthetic or historic sense of a particular period or place.
7. **Association** is the direct link between an important historic event or person and historic property.

The essential physical features that define a building's character and convey its historical significance must be present for the building to be significant. These are the features that define why a property is significant when it was significant (period of significance). The tangible features of both the interior and exterior must be preserved to express the building's significance.

For the Pelham Carnegie Library, arguments can be made for different periods of significance. For the sake of this evaluation, the years 1908 – 1962 are being used as the benchmark.

Given this period of significance, the section below considers each of the seven aspects of the National Register's integrity as they relate to the structure and grounds surrounding Pelham Carnegie Library and rates each according to a scale of poor, fair, good, or high.

Integrity of Location - HIGH

The Pelham Carnegie Library retains a high degree of integrity of location. It is situated in the exact spot in which it was constructed in 1908 and the main roadways on its north and east sides while larger and paved, maintain historically accurate access to the building and its grounds.

Integrity of Design - GOOD

Many of the elements of T.W. Smith's design are intact; the monumental entry, the double sash one-over-one windows, seven of the ten historic ornamental hoods, and the entryway pediment. On the interior, the first floor reading areas, the Arts and Crafts-inspired oak woodwork, and the original intended flow of the patrons and staff are also well preserved. The 1990s addition did alter the western side of the building but, despite that, the overall preservation of the original design elements is good.

Integrity of Setting - GOOD

The viewshed of the building, though altered, is still largely intact. The front of the historic building still dominates a viewer's first impressions.

Figure 1.63. The north façade of the Library December 2023. Photo by author.

The Hand Trading Company building, recently renovated and sympathetically adapted into mixed rate apartments, still towers over the library to the east.

Figure 1.64. View eastward toward historic neighbor, the Hand Trading Company building erected in 1914. Photo by author.

Librarian Alice Barrow's house is still located to the west in its original historic location.

Figure 1.65. View to southeast of historic neighbor, the Barrow residence. Library in background left. Photo by author.

And the old Flint River railroad depot, to the south is intact and currently serves as rental apartments.

Figure 1.66. View to northeast of historic Flint River & Northeast Railroad depot. Photo by author.

The removal of the railroad passenger landing and the subsequent construction of the 1990s addition have negatively impacted the setting. Additionally, the alterations to the north side of Hand Avenue, including the demolition of the Hand estate have degraded the view shed from within the historic structure. The fences along the south boundary are distractive, non-historic additions, and the two high canopy trees on the east and south also degrade the building's outward appearance. For these reasons, the integrity of setting is good.

Integrity of Materials - HIGH

The integrity of materials on the exterior of the historic building is generally good. The speckled face brick finish and mortar joints have accumulated some organic growth and show some material decay in places but are largely intact.

The surviving amalgamated copper hoods and main doorway pediment show the patina of age but are secure and sound. The monumental columns, terra cotta capitals and base elements also need cleaning but are solid. Perhaps most impressively, 76 percent of the original windows in the historic building (32 of 42) are intact and repairable.

Figure 1.67. The building retains 32 of the original double sash historic wood windows. Photo by author.

Out of sight, in the foundation crawl space, are wood materials of impressive dimension that are unimaginable today. Dozens of 21' joists (actual 2" x 12" dimensions) comprise the floor systems in the building.

Figure 1.68. The floor system is comprised of 2"x12" (actual) southern yellow pine joists, some measuring 21' in length. Photo by author.

This system rests on a set of even more impressive 6" x 8" carrying beams. These two beams, each measuring 26' in length, are both individual pieces of wood with no lap or scarf joints.

Figure 1.69. Main floor system carrying beams are 6" x 8" single timbers measuring 26' in length. A mammoth piece of wood representative of a past era. Photo by author.

These components are a powerful reminder of how abundant and robust southern yellow pine was in the early 20th century.

On the interior, the extensive first floor wood finishes, much of it in a rich-grain oak, including the columns, doorways and wainscotting are very well preserved.

Figure 1.70. Interior oak detailing includes wainscotting, trim, columns, and doors. Photo by author.

The exquisite terrazzo flooring is in very good condition.

Figure 1.71. The central terrazzo flooring preserves a rich finish and technique common in early 20th c. public buildings. Photo by author.

The pressed metal ceiling is fully intact and represents one of the most compelling materials in the entire structure.

Figure 1.72. The pressed metal first floor ceiling is in excellent condition and captures a popular and economic alternative to more elaborate and costly plaster finishes. Photo by author.

Set against this favorable appraisal, however, is the non-original but sympathetic cornice, the added front entry steps and the addition of non-historic walls and materials on the second floor.

Despite these drawbacks, a first-time visitor to the historic building can observe, both inside and out, the finely crafted and thoughtfully detailed materials of a bygone era. For these reasons, the integrity of materials rates high.

Integrity of Workmanship - HIGH

The building embodies several striking examples of crafts and techniques from a specific period in history. The terrazzo flooring in the main entry is the most impressive element because of the unique skills this flooring required for installation.

The interior woodwork is also impressive because, even after 120+ years, the joinery remains tight and the angles sharp. The two matching stairways, particularly the newel posts and outer riser detail on these three-quarter winder stairs, are excellent examples of this extremely skilled work. Keep in mind much of the historic woodworking in this building was accomplished with hand saws and chisels.

Figure 1.73. The craftsmanship of the stairway newel posts illustrates a precision and expertise evident in much of the building's woodwork. Photo by author.

In the crawl space, the building length three wythe load bearing wall has a series of beautifully crafted arches that facilitated movement between the front and main sections of the foundation crawl space.

Figure 1.74. Out of sight in the crawlspace a series of beautifully constructed masonry arches line the building's northern interior wall. Photo by author.

Finally, the interior walls of the historic building, though heavily damaged in places, are covered in a lime/gypsum plaster which speaks to a decorative finish common in the early 20th century that required highly skilled craftsmen.

Figure 1.75. Plaster on brick finish is found throughout the building's first and second floors. Although areas are damaged, over 75% of these historic plaster walls are intact needing only cleaning. Photo by author.

Integrity of Feeling - HIGH

Given the integrity of the setting, materials, workmanship and design present in this building, a visitor will have a strong sense of the historic aesthetic that drove the design and construction of this building.

Integrity of Association – GOOD

The integrity of association for this structure has a significant local connection. The portrait of J.L. Hand on the first floor and the name of the street out front strongly associates the building with significant local history. This building preserves a very tangible link to a time when Pelham was new, growing, and ambitious. For these reasons the integrity of association is good.

Character-Defining Features

Character-defining features refers to those visual aspects and physical features that make up the appearance of an historic building. These might include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces, and features, as well as the various aspects of the site and environment.

Identifying character-defining features is important for two reasons: preservation and interpretation. Knowing the specific features that make a building historically significant aids the owner or steward of the property, as they guide rehabilitation and preservation efforts. As stated in National Parks Service Preservation Brief #17, the character-defining features "or elements that give the building its visual character and that should be taken into account in order to preserve them to the maximum extent possible."

Identifying character-defining features can also aid in the interpretation of the site. The open reading areas on the first floor, for example, are an excellent example of the shift in library design taking place in the early 20th century.

The following lists the character-defining elements of the Pelham Carnegie Library:

Exterior

- Entablature including brick architrave and frieze, plus copper cornice with dentil molding
- Front entrance with Ionic columns and pediment
- One-over-one double sash wood windows
- Profiled jack arches on exterior of staircase windows
- Window hoods

Interior

- Fireplaces and hearths
- Interior 4-bay doorway to main space
- Interior oak columns and pedestals
- Oak stairwells including the newel posts
- Plaster wall finish
- Pressed metal ceiling
- Terrazzo flooring
- Wainscotting

Lost

- Roof top balustrade
- Starburst windows in stairways
- Tile roof
- West elevation fenestration (windows)

Section 2: Conditions Assessment

Foundation

The foundation of the Pelham Carnegie Library is a combination of historic brick masonry and modern CMU block and concrete construction. The brick elements are located beneath the historic structure and the CMU and concrete components are beneath the modern addition.

The historic brick masonry foundation is comprised of a perimeter stem wall, a collection of engaged piers and free-standing columns. There is also a full-length interior load bearing wall running east to west in the historic structure.

The foundation supporting the modern addition is comprised of a one wythe CMU perimeter wall, a continuous pour concrete cap, and two rows of six evenly spaced CMU columns aligned in the center. Figure 2.1 provides the foundation plan for the complete structure.

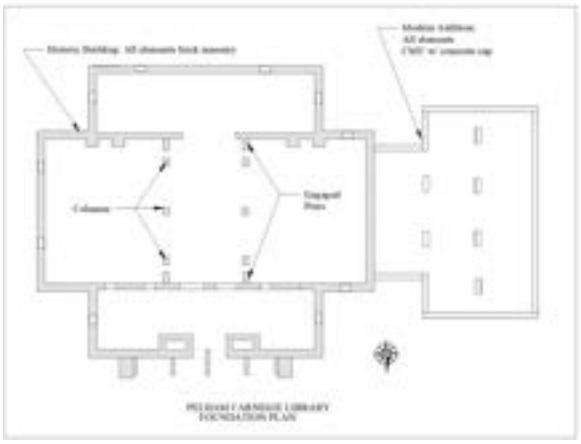


Figure 2.1. As built foundation plan for historic building and addition.

Foundation: Historic Structure

The historic structure's foundation was constructed with common red brick measuring 3-5/8" thick by 2-1/4" high and 7-5/8" long. The characteristics of these bricks point to their early 20th century manufacture date. The finish is smooth indicating their box pressed (as opposed to wire cut) fabrication. There are wide variations in color and some of the bricks exhibit visible iron deposits impurities. Finally, there are numerous bricks with dimensional imperfections and irregularities.

Figure 2.2. Historic common red brick used throughout the building. Note smooth surfaces and imperfections. Photo by author.

The binding mortar joints on these historic bricks are finished with a flush profile and measure, on average, a robust ⅝" to ¾" in width. Acidity analysis indicates the mortar has a high lime content (as opposed to contemporary Portland cement mixes). This information will be important for future restoration and repair work and should be conveyed to the mason.

Figure 2.3. An acidity test of mortar used in foundation indicates a high lime content. Photo by author.

The perimeter of the historic building's foundation is supported by a stem wall. It is composed of four wythes laid in an interlinking running bond pattern. The interlocking headers are spaced every fourth course.

Figure 2.4. Running bond pattern with interlocking header bricks (indicated in red) every fourth course. Photo by author.

The original architectural drawings for the building (dated April 1907) indicate that the foundation walls should have "footing projections" of two courses each. In an era before the widespread use of poured concrete, masonry footers were the standard practice. These "spread footings" (in modern parlance) would be located below grade and then backfilled. Observations on site suggest that the footings are shallow, by modern standards, and are configured in a two- course, corbel fashion.

Figure 2.5. Exposed corbelled spread footer (outlined in red) below engaged piers. Photo by author.

This observation was made at the base of one of the engaged piers. It is likely the same configuration was used on the stem wall although it was not confirmed. Figure 2.6 provides a sectional view of the historic building's brick foundation.

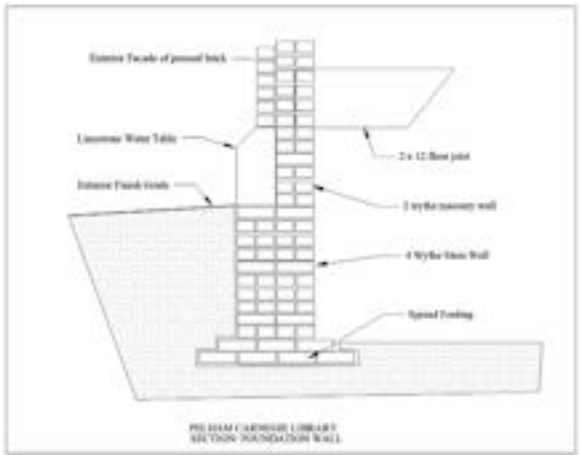


Figure 2.6. Sectional view of historic building foundation wall.

The perimeter of the foundation has ten ventilation/access ports. Each opening measures 20" in width by 12 ½" in height.

Figure 2.7. Historic building foundation windows. Photo by author.

Seven of these "windows" are secured with iron grill coverings. The other three (south side) are serving as mechanicals conduits.

Figure 2.8. Three foundation openings are used for utility/mechanical lines. Photo by author.

While the crawl space beneath the historic structure is not excavated or finished, the stem and masonry wall rise above the dirt floor approximately 42". This provides good, if cramped, access to the perimeter, piers, and flooring system above.

Figure 2.9. Good clearance in crawlspace (42") but access is limited by small foundation windows. Photo by author.

At the front of the building along the north wall, there are two hollow box piers which support the foyer floor system and the monumental columns at the main entrance.

Figure 2.10. Large hollow box piers supporting the building's front entry. Photo by author.

In the middle of the structure, running north to south, a set of mirrored piers and free-standing columns capture the weight of two 26' 6" x 8" carrying beams upon which the central floor joists and weight bearing interior columns rest. The free-standing piers measure 12" x 16". The engaged piers measure 12" X 24".

Figure 2.11. Free standing pier (red) and engaged column pier behind (yellow) support 26' main carrying beams. Photo by author.

Partially buried in the crawl space is one of the building's many distinctive features; a 38' masonry wall with six beautifully crafted archways. This three-wythe brick and mortar wall rises from below grade to the full height of the exterior, over 30' above.

Figure 2.12. Base of interior three wythe masonry wall with arches. Photo by author.

The archways are configured in two sizes and provide access between the expanse of the main buildings crawl space and area below the foyer. The largest of the arches measures 40" across and 18" at its height. Two of the archways have been utilized as pass-throughs for HVAC ducting and electrical lines.

Condition: Historic Structure Foundation

Long term water penetration has done substantial damage to the building's foundation. The most significant and alarming instance is in the northeast corner of the structure. Just to the east of the interior corner, an *8' x 16" section of the masonry wall is missing.*

Figure 2.13. Demolished section of perimeter wall in northeast corner measures 8' x 16". Photo by author.

Whether it was removed or simply crumbled due to decay is not clear. A pile of brick is visible on the adjacent dirt floor. A close-up view clearly shows the junction where the east-west wall meets the perimeter wall. This corner has completely deteriorated and no longer exists. The back of the exterior water table limestone is clearly visible.

Figure 2.14. Junction of interior three wythe wall with perimeter foundation. Rear of limestone water table clearly visible on right. Photo by author.

The likely cause was a failed gutter high above and/or the downspout located just outside on the exterior of the building. Additionally, the poor drainage slope away from the foundation in this corner of the building may have also contributed. The absence of this wall section means the two wythes of brick which stretch upward over thirty feet are entirely unsupported. **While the mortar and compressive force of this mass is holding the wall up for the time being, this situation demands immediate attention**.

There is evidence this problem has existed for some time. A beam of pressure treated 1 x 12s and sandwiched plywood has been positioned perpendicular to the failing wall to catch the floor joists out to a distance of roughly 8'.

Figure 2.15. Evidence of repairs. A multiply wood beam captures weight of floor but not exterior wall. Photo by author.

The beam is supported by two non-mortared columns of CMU block. The presence of this beam was probably an effort to address the structural weakness in the flooring above. It does not address the exterior wall. Insect damage was also noted to the flooring joists in this quadrant.

Figure 2.16. The repair beam is supported by non-mortar CMU piers. Photo by author.

The water penetration has also significantly damaged the adjacent north/south wall in this corner of the building. Portions of eight courses of the wall are missing and the junction or corner has completely deteriorated. Some effort was made to support the weight by positioning several bricks vertically in the voids. This is not an effective remedy.

Figure 2.17. Extensive material failure to eastern stairway wall at junction with interior masonry wall. Note vertical bricks providing support. Photo by author.

At various locations along the perimeter wall, efflorescence was noted on the interior brick surfaces.

Figure 2.18. Evidence of efflorescence at various locations on perimeter wall. Photo by author.

Efflorescence happens when moisture moves through a brick. Bricks are porous and, as the moisture migrates outward, salts and mineral deposits naturally found in bricks are carried to the surface. When this moisture is exposed to air, it evaporates but the salts and minerals remain behind leaving a white, chalky residue. Efflorescence indicates that water has found its way *into the brick* from above or through rising

dampness from below. In these instances, it appears the water has penetrated from above. As detailed in several later sections of this report, the cause and source of this moisture is likely the building's flawed drainage system.

Evidence of overall settling was limited but three cases were noted. The engaged pier on the northwest side of the mirrored interior set has a step crack stretching from the spread footers approximately 18" up the pier.

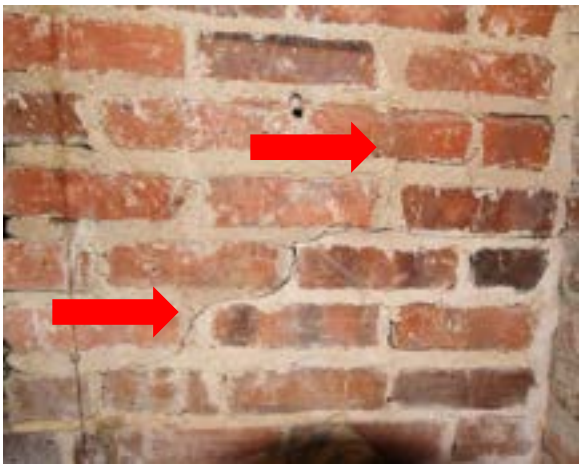


Figure 2.19. Step crack observed in western engaged pier beneath center of building. Photo by author.

The free-standing columns on the western side, which support one of the main floor system carrying beams, are out of plumb (+/- ¾" at 2'). They tilt to the east.

Figure 2.20. Free standing masonry columns are out of plumb, leaning to east. Photo by author.

As detailed in a later section of this report, the masonry piers supporting the buildings front steps may have settled as evidence by the cracks observed in the foyer's terrazzo flooring.

Figure 2.21. Cracks to terrazzo flooring above this section indicate possibility of foundational settling with free standing pier (center) or flanking masonry walls. Photo by author.

The hollow box piers at the front of the building have numerous penetrations holes which appear to have occurred well after construction as the edges are jagged and irregular. It is not clear why these penetrations were made as no mechanical or electrical lines are present.

Figure 2.22. Unexplained punctures to hollow box foundations beneath main entry. Photo by author.

While this structural failure and moisture penetration is significant, much of the rest of the foundation was observed to be in good condition. While a full inspection was not possible due to obstructions from HVAC apparatus, particularly in the southeast and southwest corners, spot examinations showed the mortar joints are tight and there was no

vertical or horizontal deflection observed in the wall planes.

Foundation: Modern Addition

The foundation for the modern addition is a single wythe wall composed of full CMU blocks measuring 11 ⅝" x 7 ⅝" x 15 ⅝". The block appears to be a triple void configuration and is laid in a running bond pattern. The blocks appear to be Grade B, high density concrete. Mortar joints are approximately ⅜" to ½" thick with a concave profile.

Figure 2.23. Running bond pattern of CMU on the addition foundation. Photo by author.

Weep holes were observed on the interior of the foundation wall along lower mortar joints.

Figure 2.24. Weeps holes in mortar joint on inside of the addition foundation walls. Photo by author.

All the CMU block elements under the modern addition, (both the perimeter wall and piers), are topped with a poured concrete cap that measures approximately 9" in height by 12" in width. This element may have been added for leveling the new structure with the historic building floor height.

Figure 2.25. Continuous pour concrete cap (highlighted in yellow) on CMU perimeter and piers. Photo by author.

The crawl space beneath the building is not excavated so access is tight. There is a little over thirty inches of clearance between the unfinished dirt floor and the floor joists.

Figure 2.26. Tight access (approx. 32") below the modern addition. Photo by author.

There are six ventilation windows on the perimeter of the foundation including the hyphen. These openings measure 13" in height by 21" in width.

Figure 2.27. Six foundation windows below modern addition. Photo by author.

There are six piers in the center of the foundation which carry the weight of the floor system and hyphen walls. The piers are made of stack bond block (12" x 16"). All the piers have poured concrete caps.

Figure 2.28. CMU piers supporting flooring system of addition. Photo by author.

Condition: Modern Addition Foundation

The modern addition foundation is in good condition. No structural cracks or loose mortar were observed. One curious feature was the demolition done to accommodate the HVAC ducts. These portals appear to have been made *after construction* and may have weakened the structural integrity of the foundation in these sections.

Figure 2.29. The addition's foundation wall was altered (southside) after construction for mechanical pass-through. Structural integrity may be compromised in this section. Photo by author.

Floor System

The Pelham Carnegie Library is a two-story structure with a modern addition. The floor system for each building is comprised of carrying beams, joists, blocking and subfloor decking. The pattern of layout appears to be similar between the two floors but differs between the original structure and the addition.

Only the first-floor systems of the historic building and the addition were evaluated for this report. The second floor of the historic building was not accessible. While the load path for the second-floor system strongly suggests it mirrors the layout of the ground floor, that is not confirmed. Consequently, Figure 2.30 (below) provides a framing plan for these first-story floor systems only.

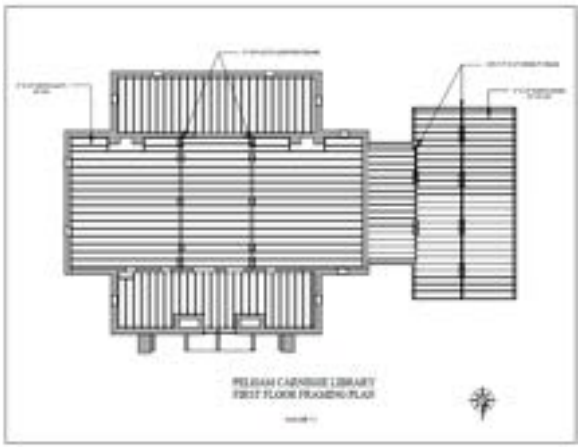


Figure 2.30. First floor framing plan.

It should be noted that the framing of the second-floor ceiling, over the main area, is entirely different. The joists for that system run north to south, across the building, rather than east to west as they do on the first floor. This observation is consistent with T.W. Smith's original intent to make the second floor an open auditorium. Additionally, the only top plate of historic wall framing observed in the attic were 2" x 6" 's for the demising walls separating the utility room and kitchen from the main second floor room.

Figure 2.31. Original 2" x 6" top plate of kitchen demising wall in attic. Photo by author.

This confirms that the existing main partition wall on the second floor, which currently contains the large bi-fold doors, is not load bearing and was likely added long after original construction. Figure 2.32 provides a framing plan for this second-floor ceiling.

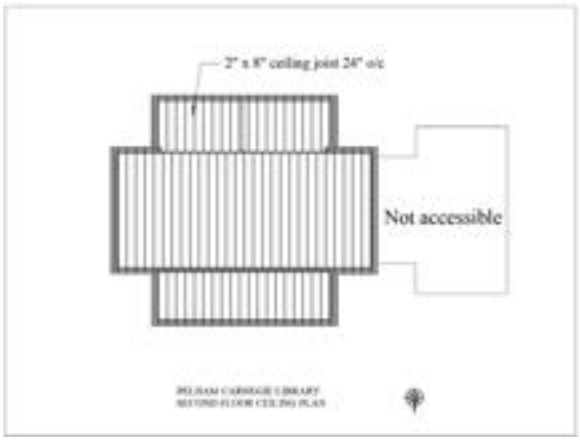


Figure 2.32. Framing plan for second floor ceiling.

Floor System: Historic Building

The floor system is composed entirely of wood and metal fasteners. Magnification of wood samples taken from the joists and girder beams indicate the species of wood is Southern Yellow Pine (*Pinus app*.)

Figure 2.33. Sample from floor joists under 400x magnification. Note growth rings common to southern yellow pine. Photo by author.

Southern Yellow Pine (SYP) was and remains a popular choice for wood framed structures because it is strong, stiff, dense and holds fasteners well. It was also widely available in southern Georgia from local sawmills in the early

20th century. Lumber products were Georgia's largest employer in 1910.[65]

The dimensions and quality of the lumber in this building reflect the abundance and mature growth available in that earlier age. For example, the 6" x 8" girders supporting the floor system in the middle of the building are *single* pieces of wood 26' in length.

Figure 2.34. One of a pair of 6" x 8" girders in crawlspace. No lap or scarf joints observed in these 26' timbers. Photo by author.

Similarly, the floor joists span over 21'. While modern building codes would typically prohibit these lengths of load bearing wood (on an 18" layout), obtaining either of them today, if possible, would require a special order of prohibitive expense.

The floor joists in the historic structure are 2" x 12" (actual) on 18" centers (+/-). Bridge blocking is present at roughly 8' intervals.

Figure 2.35. 2" x 12" floor joist anchored in masonry pockets. Photo by author.

The perimeter ends of the joists are supported in pockets in the masonry wall. Inspection could not determine if the joists were "fire cut."

The interior ends of the joists are notched and rest on the twin girders that span the center of the building. None of the observed joists showed any evidence of the typical checking (cracking) associated with this design. Commonly, the joist will separate just below the notch.

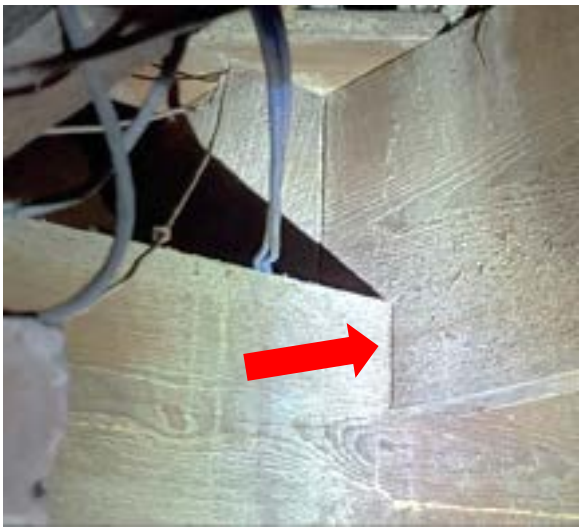


Figure 2.36. Floor joists notched on carrying beam. No evidence observed of checking (cracking) at notch which is common. Photo by author.

The subfloor is 1" x 8" (nominal) planking. It was installed on a diagonal pattern running northeast

[65]U.S. Census Bureau, *"Manufactures: Georgia,"* Bulletin 391, 1910. https://www2.census.gov/library/publications/decennial/1910/bulletins/manufacturing/391-manufactures-ga.pdf.

to southwest. In the center of the building, the pattern switches to a northwest to southeast orientation.

Figure 2.37. The subfloor is 1" x 8" (nominal) laid diagonally. Photo by author.

Condition Floor System: Historic Building

The condition of the floor system in the historic building is good with one notable exception detailed below.

The main carrying beams exhibit some age-related checking (cracks) but this does not significantly impact their structural performance.

Figure 2.38. Some checking observed in long carrying beams. Photo by author.

The floor joists also exhibit some characteristics consistent with their age and length. The large floor on the eastern side of the main reading areas (a 21' clear span) shows a maximum of ⅞" deflection at the mid-point. The western section registered 1⅛" deflection at the midpoint.

The most concerning discovery was evidence of insect infestation. The telltale saw dust path indicates their presence.

Figure 2.39. Termite trail on floor joist in crawlspace. Photo by author.

This was most pronounced in the northeast corner of the structure where the extensive water penetration introduced a high level of moisture into the crawl space. Insect trails were also observed in several other places. Wetness is a magnet for insects. Even though current moisture readings are well within safe levels (6% - 8%), the decay present on the bottom of numerous joists in this northeast corner indicates a sustained infestation. The Eastern Subterranean termite is the most likely culprit but evaluation by a professional exterminator is recommended to confirm this. During inspection, no insects were observed.

Figure 2.40. Insect damage to joists in northeast corner. Photo by author.

Figure 2.41 indicates the area where decay and material failure were observed in the building's floor framing system.

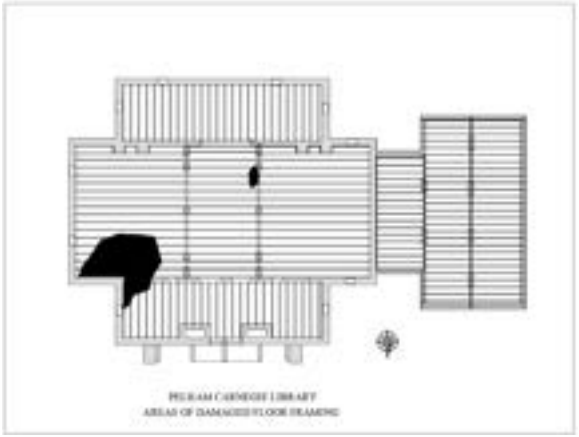


Figure 2. 41 Areas of damage and decay to first floor framing system.

Flooring System: Modern Addition

The floor system of the modern addition is constructed of 2" x 12" (nominal) pressure treated joists on 16" centers. The joists run east to west (parallel with Hand Avenue West) and are fastened to a set of parallel carrying beams. The joists are secured with Simpson-style joist hangers. The hangers appear to be sized for 2 x 8s rather than the 2 x 12s they support.

Figure 2.42. Joists attached to carrying beam with Simpson type hangers. Photo by author.

The beam, which straddles the foundation piers, is constructed of three 2" x 12" (nominal) pressure treated timbers.

On the perimeter, the joists are fastened to a 2" x 8" sill which sits on a layer of roofing paper on top of the poured concrete cap. Bolts anchored in the concrete secure the plate to the foundation wall.

Figure 2.43. Joists fastened to 2"x 8" sill which is secured with anchor bolt in concrete cap. Photo by author.

The subfloor is 4' x 8' sheets of plywood. The specific grade was not legible. Evidence of glue used for installation was observed.

Figure 2.44. Subfloor in addition is plywood. Evidence of glue used during installation was observed (red arrows). Photo by author.

Condition Floor System: Modern Addition

The floor system of the addition appears sound and free of any water damage or decay with one exception.

The area beneath the south side first floor bathroom has lost significant structural integrity. The plywood has completely rotted, and active organic growth is visible in the joist bay.

Figure 2.45. Failing floor and organic growth beneath first floor restroom (south). Photo by author.

This water damage was likely caused by the water intrusion from the second-floor window which is explained in a later section of this report.

One other note about the addition's floor system and crawlspace; the staples holding the insulation to the joists have rusted away causing the fiberglass bats to fall to the ground in the crawl space.

Figure 2.46. Insulation staples have rusted away causing fiberglass to fall onto crawlspace floor. Photo by author.

Roofing System

The roof system for the Pelham library is both elegant and complicated. There are five different ridge elevations, three different roof plans and an elaborate asymmetrical perimeter cornice and box gutter system. Additionally, the roof has experienced several modifications since construction. These modifications include the removal of the chimneys, the removal of a rooftop balustrade on the northern elevation and at least one resurfacing with asphalt shingles. A signed project estimate in the Pelham Town Hall files indicates some of this work was done in 2016 for the cost of $88,500.

Figure 2.47. Signed contract for roof repairs with Tip-Top Construction, May 2016. On file at Pelham City Hall.

Figure 2.48 below provides an overview of the roof plan for the entire building.

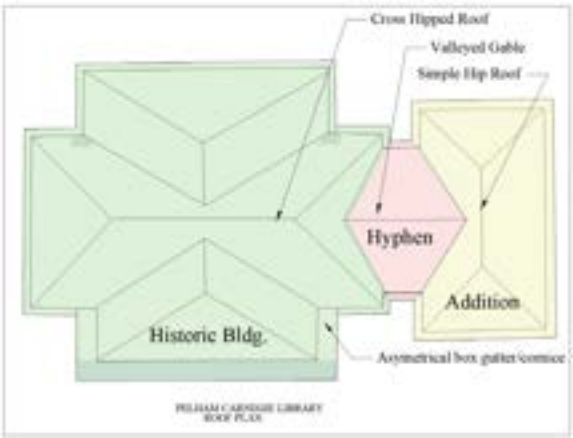


Figure 2.48. Roof plan for historic building and modern addition.

In terms of design, the building expresses two variations of a hipped roof configuration. The historic structure is a cross-hipped design where the main east-west ridge line is approximately 17" above the south ridge. The modern addition has a simple hip structure with a ridge line that is 32" below the main historic ridge elevation. The hyphen roof connecting the two is a valleyed gable with a still lower ridgeline 48" below the historic ridge line. The roof pitch on the historic structure and addition is 5/12. Figure 2.49 provides an elevation view.

Figure 2.49. Carnegie Library roof elevations.

Roof System: Historic Structure

The historic building is a skillfully framed stacked rafter roof with 1"x 8" (actual) ridge boards. The common rafters are 2" x 6" (actual) on 24" centers (+/-). The hip and valley rafters are 2" x 8's (actual). The valley rafters and portions of the ridge board are supported with 2" x 4" rake cut studs running vertically to the ceiling framing below. The end of north/south ridge lines are secured with large angle braces and approximately every third rafter bay is secured with a 2" x 6" collar tie.

Figure 2.50. Rake cut vertical studs support rafters (red arrow). Large angle braces catch end of north/south ridge board (yellow). Collar ties (blue) run approximately every third bay. Photo by author.

The roof is decked with 1" x 5" (actual) tongue and groove laid perpendicular to the rafters.

Figure 2.51. Roof decking is 1" x 5" T&G laid perpendicular to the rafters. Photo by author.

The exterior of the roof is finished with composite asphalt architectural shingles.

Figure 2.52. The roof is finished with architectural series asphalt composite shingles. Photo by author.

The shingle installation includes ridge vents.

Figure 2.53. Ridge vents line the crest of asphalt roof. Note that missing ridge vents will be identified in a later section of this report. Photo by author.

The most elaborate part of the historic roof is the box gutter and cornice construction.

Figure 2.54. Box gutter assembly on historic building (northwest corner). Photo by author.

Box gutters are a system for rain drainage which is constructed as part of the roof versus the more common (and contemporary) external gutters systems which are attached to the exterior of the fascia board. Box gutters are often found on high-style architectural buildings precisely because they are not visible from the ground. While aesthetically pleasing, if they are not properly installed and rigorously maintained, a failing box gutter can lead to catastrophic damage *inside a structure.* This was probably a contributing factor to the damage in the northeast and southwest corners of the historic building. Figure 2.55 provides a sectional view of the box gutters.

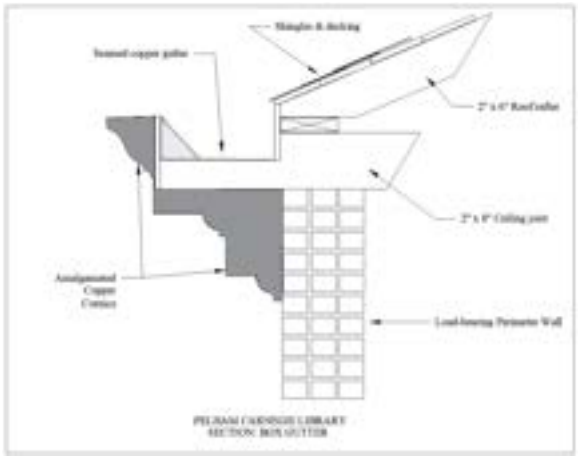


Figure 2.55. Section view of box gutter assembly on historic library building.

The box gutter design for this roof is unique because it is not symmetrical on all sides of the historic building. The front and sides of the north elevation present a rain trough measuring a mammoth 42" across. All other sides of the historic building are configured with projections that range from 12" to 18".

Figure 2.56. Note different distances box gutter projects off building. Photo by author.

The probable explanation for this difference was the balustrade which originally graced the perimeter of the northern exterior wall.

Today, the entire box gutter system has been repaired and covered with seamed 20 oz. copper sheathing which has been fabricated and sloped to direct rainwater to the downspout scuppers.

Figure 2.57. Welded seam copper lining in the box gutter troughs. Photo by author.

The bottom of the box gutter system is wrapped with a two-piece heavy gauge, powder coated, extruded aluminum or amalgamated copper cornice. The exact dimensional profile of this feature was difficult to ascertain during inspection but its components (a crown detail, fascia, soffit, and a dentil molding) mirror the original configuration depicted in the historic photograph.

Figure 2.58. Contemporary two-piece amalgamated copper or aluminum cornice assembly. Photo by author.

Figure 2. 59 Early undated photograph shows original cornice design.

Condition Roof System: Historic Structure

The condition of the historic roof system is good with several exceptions noted below. The framing members are dry (less than 6% moisture at spot readings), and the joinery remains tight and well seated. The original tongue and groove roof decking is also in good condition showing tight seams and flush engagement with the rafters.

Figure 2.60. Roof framing is sound, and decking is well seated on rafters. Photo by author.

There is evidence of repairs in several areas. Individual decking boards have been replaced in at least a half-dozen locations, and where the chimneys were once located, the area has been patched with plywood and several 2" x 6" scab boards. The former western chimney has been covered with a sheet metal cap which suggests the remnants of the lower section may still be hidden in a wall below.

Figure 2.61. Sheet metal cap on western chimney top in attic. Photo by author.

Additionally, the internal framing of the box gutter shows evidence of significant repairs in places, particularly the northeast corner of the roof system.

Figure 2.62. Evidence of repairs to box gutter in northeast corner. Note the pressure treated lumber visible (highlighted with red arrow). Photo by author.

The one area of concern with the roof system are the hastily replaced, or missing shingles along the north-south ridge line and the northeastern hip. These were likely damaged due to high winds, possibly Hurricane Michael in October of 2018. The black shingles are clearly replacement cap pieces. Figure 2.63 below identifies the specific areas on the historic structure where this damage has occurred.

Figure 2.63. Circled areas indicate missing sections of ridge vent shingles. Photo by author.

The southern terminus of the north/south ridge line (yellow highlight on Fig. 2.63.) appears to be the area most in need of immediate attention. Just inside this junction, a hole in the shingles exists which emits sunlight (and moisture when it rains) into the attic space. **This should be properly repaired as soon as possible.**

Figure 2.64. Open gap in roof system below southern end of north/south ridge line. Photo by author.

Another area which may have been damaged by wind and/or long-term exposure to moisture is the section of the cornice on the south side connecting the historic building with the modern addition. An 8' "L" shaped segment of the extruded polyurethane molding (possibly a proprietary product known as Fypon) is missing, exposing the building wrap and roof framing beneath to moisture. A small section on the historic building is also missing (red arrow below).

Figure 2.65. Missing section of hyphen roof cornice and southwest corner of historic building. Photo by author.

Roof System: Modern Addition

The internal roof framing of the modern addition and the hyphen were not accessible for inspection. No trap doors or access points could be located and there is no access through the historic roof attic.

The cornice construction on the addition appears to be a combination of the copper-lined gutter with lower ornamental elements made of molded polyurethane.

Figure 2.66. The gutter/cornice on the addition is a combination of copper lined gutters and polyurethane molding. Photo by author.

Condition Roof System: Modern Addition

The framing of the addition's roof could not be accessed during inspection, so its integrity is unknown. The exterior elements were visually inspected and show damage from water and possible wind exposure. Sections of the dentil molding have lost their painted finish, exposing the raw molded polyurethane below.

Figure 2.67. Dentil molding shows material decay and damage. Photo by author.

As noted above, the southeast corner of the addition has lost a section of the cornice.

Figure 2.68. Missing section of cornice on southside of addition. Photo by author.

During numerous inspection visits, squirrels were observed to be entering the modern addition roof system through an access point somewhere on the northern side of the hyphen. The precise location was not determined.

Roof Flashing and Drainage

There are seven flashed penetrations on the library roof system. The largest is the access door located on the southeast side of the historic building. Close inspection indicates its sides are covered with step flashing and the top and bottom rails are covered with an apron flashing. There is no evidence of leakage on the inside framing.

Figure 2.69. Access door on southeast facet of historic roof. Photo by author.

The other six penetrations are 2" plumbing vent pipes. Three of these are in the hyphen roof and three are in the historic roof section. All appear to be well flashed with a lace shingle weave

wrapping over the roof boot and wire mesh over the opening.

Figure 2.70. One of the six plumbing vent penetrations in roof. Photo by author.

The other flashing element in this roof system are the valleys between each roof facet. There are eight in total. These tapered channels of rolled copper funnel rainwater to the gutters.

Figure 2.71. Eight copper lined valleys (one highlighted in red) drain water to the gutters. Photo by author.

Each valley appears to be made from one piece of copper with a dividing "V" relief bend in the middle.

Figure 2.72. Close-up of copper valley flashing. Photo by author.

There is one area of variation where the valleys have been modified with an additional piece. At the seam where the modern hyphen connects to the historic structure, the elevation of the gutter system drops seven inches. At the bottom of these valleys an additional piece of copper flashing has been added to facilitate water flow into the gutters of the hyphen roof.

Figure 2.73. Note drop in elevation of modern addition gutter system and valley extension. Photo by author.

The effectiveness of this configuration is suspect. Evidence inside the building, particularly in the southwest corner below this, shows damage from long-term water penetration. This flashing joint or the stepped down box gutter of the modern addition or its seam with the historic building may have contributed.

The next element of the drainage system is the box gutters which run around the perimeter of the building and channel rainwater toward one

of eight downspouts. The downspouts are welded to the gutter system and run through the cornice.

Figure 2.74. Copper downspouts cut through the cornice assembly inside the box gutter. Photo by author.

The downspouts emerge onto the exterior wall at the dental molding and are affixed with copper straps.

Figure 2.75. Downspouts affixed to the building exterior with copper straps. Photo by author.

The downspouts are located on the interior corners of the historic building. On the modern addition, locations vary. There are two dimensions of downspout in use on the building. Figure 2.76 provides the location and dimension for all the downspouts.

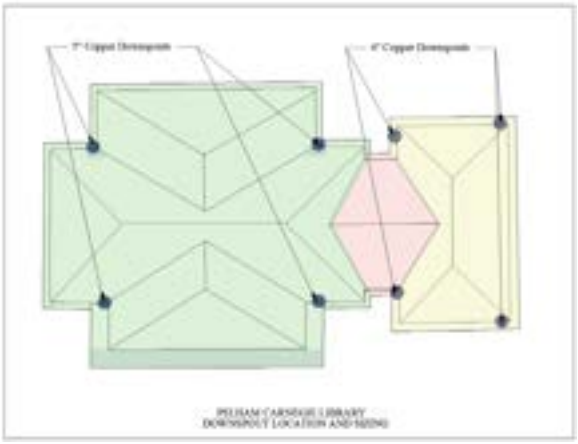


Figure 2.76. Downspout location and sizing.

While many of the downspouts are currently damaged or missing, the intended flow of water for six of the eight downspouts is to elbow drains located just above grade.

Figure 2.77. Downspouts are intended to terminate at an elbow drain near grade, but most are broken or disconnected. Photo by author.

The southeast corner downspout drains directly into a cast iron sleeve which likely flushes into sewer system.

Figure 2.78. Southeast corner historic building downspout drains into cast iron city waste line. Photo by author.

The drain adjacent to the fire escape on the south exterior has a long-sloped extension which empties approximately 40" above grade flush with the exterior wall.

Figure 2.79. Southside historic building downspout terminates well above grade. Photo by author.

Site Drainage

The overall site topography favors adequate drainage away from the building. The rule of thumb is that the finished grade should slope away from the structure's foundation approximately 6" per 10'. While no side achieves this slope, the west, south and portions of the north sides provide adequate positive flow away from the building although there is some evidence of pooling along portions of the south side.

The poorest drainage slope is found in the northeast corner. Here a nearly level finished grade functionally traps water against the building. The existing dynamic in this corner of the building may have contributed to the significant damage to the interior foundation wall directly behind and below.

Figure 2.80. Northeast corner of building has a poor slope away from foundation causing water to pool and/or run back against foundation. Photo by author.

Condition of Drainage System

Elements of the drainage system are in good condition, but other parts need significant repairs. The copper lining of the box gutters, particularly on the northern side of the historic building, are well seamed and free of accumulated debris although there is some evidence of regular pooling which could indicate the sloping is inadequate.

Figure 2.81. Northeast corner box gutter with some water pooling. Photo by author.

The gutter on the south side is structurally sound but significant amounts of organic debris, likely from the nearby pine tree, indicate its drainage function is impaired.

Figure 2.82. Southside historic building gutter heavily clogged with organic debris. Photo by author.

The integrity of the gutter system surrounding the modern addition is less intact. The northern and western sides are sagging, and the retention brackets on each side appear to have loosened or become disengaged.

Figure 2.83. Box gutter on addition's western side. Note sag (red) and disengaged retention bracket (yellow). Photo by author.

This system on the western end of the addition appears to overflow regularly as a pattern of rain staining is visible on the concrete entryway below.

Figure 2.84. Evidence of chronic water draining onto west side concrete landing from poorly functioning box gutter above. Photo by author.

The downspouts are the most damaged part of the drainage system. Only three of the eight downspouts are fully intact to the ground. Some are missing pieces or have been deliberately shortened causing rainwater to fall back against the building and ultimately down to the foundation. This is destructive to both the EIFS cladding and the masonry.

Figure 2.85. Shortened downspout on the addition's southside causing water to drain down wall. A similar situation exists with other downspouts. Photo by author.

The two failing downspouts on the western end of the front elevation have caused significant organic growth on the brick façade. Exposing masonry to this amount of long-term moisture will have a detrimental impact on the integrity of the binding mortar and will likely result in mold growth inside the structure. This may have been the source of moisture which resulted in efflorescence inside the foundation wall.

Figure 2.86. Broken downspout on historic building northwest corner resulting in significant organic growth on face brick and mortar. Photo by author.

There is evidence the gutter system on the addition is not working properly. Numerous vertical water stains were observed below the dentil molding which suggests the gutter is not properly capturing rainwater and channeling it to the downspouts. This water exposure may explain the decay that is visible on the Styrofoam dentil molding.

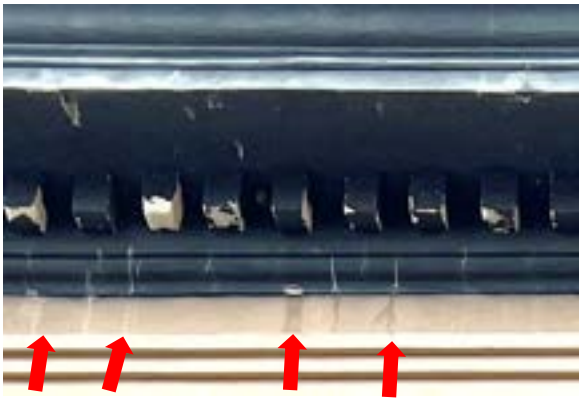


Figure 2.87. Addition's dentil molding showing heavy decay. Note water stain on EIFS wall (red). Photo by author.

A final point about the building's drainage system. It may be under-designed to carry the precipitation levels the roof captures. While the width of the gutters and diameter of the downspouts appears appropriate, the overall number of downspouts seems insufficient. One common formula stipulates one downspout per

25 to 30 linear feet of gutter.[66] The Pelham Carnegie Library has approximately 311 linear feet of gutter wrapped around both the historic and modern structures. Choosing a conservative 25' of linear gutter as the divider, calculations suggest there should be twelve downspouts. The building currently has eight. In an era of new weather patterns due to climate change, this system should be evaluated by a roofing engineer who can conduct the appropriate calculations. If additional downspouts are necessary, their placement should be sympathetic to the appearance of the historic building.

Exterior Walls

The exterior walls of the Pelham Carnegie Library embody two very different types of materials and construction typologies.

The historic building is clad in an ornamental face brick consistent with its early 20th century construction. The modern addition utilizes an Exterior Insulation and Finish System (EIFS) from the late 20th century. Each of these exterior finishes are analyzed in detail below.

Exterior Walls: Historic Building

The exterior walls of the historic structure are clad in ornamental face brick laid in a running bond pattern. The bricks measure 2 ¼" x 3 ¾" x 7 ¾". The width of the mortar joints measure between ¼" and ⅜" and present a flush finish profile.

Figure 2.88. Face brick laid in a running bond pattern with ¼" to ⅜" mortar joints. Photo by author.

Face bricks differ from common red bricks in several ways. Common bricks are typically clay that is packed, and kiln dried without any special treatment to their surface or color. All the structural masonry walls and piers in the historic structure are composed of common red brick. Face bricks are typically fired at a much higher temperature, increasing their resistance to moisture, and they often have carefully monitored color treatments as well as finished and smoothed sides. For all these reasons, face bricks are more expensive than common construction bricks.

The bricks used on the façade of the historic buildings are a speckled buff color. The dark particles may indicate the presence of manganese which was carefully added early in the manufacturing processing before the bricks are fired. According to a 1922 trade article in *The Brick and Clay Re*cord "remarkable and unusual speckled effects can be produced" with manganese which presents as a blackish/brown substance. [67]

[66] Sam Wasson, "Downspout and Gutter Sizes (2024 Guide)," *Architectural Digest*. February 1, 2024. https://www.architecturaldigest.com/reviews/gutters/gutter-sizes.

[67] "Manganese for Improving Quality," *The Brick and Clay Record*, Vol. 61, No.1, July 11, 1922. 32-33. https://www.google.com/books/edition/Brick/ujrnAAAAMAAJ?hl=en&gbpv=1&dq=buff+brick+with+speckles+1908&pg=PA32&printsec=frontcover.

Figure 2.89. The speckling effect may be from manganese added during manufacturing. Photo by author.

The exterior wall height is approximately 32', and its layout articulates a deliberate commitment to balance, classical expression, and proportion. The first course of the exterior wall is the water table which is comprised of beveled limestone blocks measuring 16½" in height by 8" in thickness. The lengths vary.

Figure 2.90. Limestone water table 16" x 8" - lengths vary. Photo by author.

Approximately 50" above the water table is the building's first belt course. This 8" continuous band of limestone blocks frames the building's entry and is the plane from which the monumental columns rise on facade.

Figure 2.91. The historic building has one limestone belt course (red arrows). Photo by author.

The building's front entrance is recessed from the main plane and is flanked by full-height, smooth, limestone paired columns *in antis*.

Figure 2.92. Building entry framed by monumental limestone columns. Photo by author.

The terra cotta column capitals are Scamozzi Ionic.

Figure 2.93. Column capitals are Scamozzi Ionic in terra cotta. Photo by author.

On the south side of the historic building, the elevation of the first belt course is 21" higher than the rest of the historic building and defines the lower edges of the first-floor windows.

Figure 2.94. The elevation of the belt course is higher on the south side of the building. Photo by author.

A little over half-way up the exterior walls (18') is the building's second horizontal detail; a four-course belt of partially extruded brick. All four courses are pulled beyond the main wall plane, but the bottom two are separated from the top two by a single flush course. The upper course of this detail forms the sill plane for the second-floor windows.

Figure 2.95. The upper horizontal detail on the exterior walls is a four-course array of bricks. Photo by author.

At the top of the second-story windows, the building's final belt course is comprised of seven courses configured in a corbelled design which ascend progressively outward off the main wall plane.

Figure 2.96. Upper belt course configured in corbelled design. Photo by author.

This effect conveys a widening of the structure near the top and intentionally creates the broad architrave which frames a smooth frieze above upon which the building name is embossed. The wall culminates with a dentil and cornice to complete the entablature.

Figure 2.97. Wall culminates with dentil molding and cornice. Photo by author.

Condition of Historic Exterior Walls

The condition of the historic building reflects years of poor water management, some structural settling and normal aging. There are no catastrophic issues but overall, the binding mortar on these masonry surfaces needs varying degrees of restoration and care.

A fully annotated image for each side of the building which details damage, and areas of repair is provided in the Appendix of this report.

There are several areas on the north and south elevations where step cracks have opened in the mortar. These will likely require re-pointing though a structural engineer should evaluate for integrity.

Figure 2.98. Step cracks visible in mortar on building south side. Photo by author.

Figure 2.99. Step cracks on either side of building name north side. Photo by author.

Many of the recessed corners and/or low sunlight exposure areas have organic growth on the mortar. The integrity of these mortar seams remains good in most places, but cleaning is essential.

Figure 2.100. Organic growth on mortar widespread in low sunlight areas on all sides of the historic building. Photo by author.

There are several areas which have been damaged by modifications. The lower belt course on the south side was roughly chiseled out to make way for electrical conduit feeding the exterior lights.

Figure 2.101. Damaged lower belt course on south side. Photo by author.

Several bricks were replaced on the eastern side of the fire escape exit. The bricks are not an exact match, and the mortar work is rough.

Figure 2.102. Repairs with non-matching bricks around 2nd floor fire escape door. Photo by author.

The capital and base elements of the columns have heavy accumulated grime and particulate matter.

Figure 2.103. Column bases encrusted with grime. Photo by author.

The mortar below the lowest belt course on the front facade is missing in many places.

Figure 2.104. Significant mortar recession beneath entire length of limestone belt course on north side. Photo by author.

On the eastern side of the foyer wall, between the first and second floor windows, there are numerous mortar joints that have been improperly patched with a silicone type sealant.

Figure 2.105. Incompatible silicone patching in building northeast corner. Photo by author.

As previously noted, an annotated image for each exterior wall of the building is provided in the Appendix.

Exterior Walls: Modern Addition

The exterior walls of the addition are clad with a layered technique called Exterior Insulation and Finish System, often abbreviated as EIFS and pronounced *effs*. Informally called "synthetic

stucco," the masonry-like veneer on this system looks and feels like a traditional sand or "float" stucco finish but it is not.

The specific variation on the Pelham Library is known as a "perfect barrier" or face sealed application. Unfortunately, since its emergence and widespread use in the 1980s and 90s, repeated cases of seam failure and water penetration have shown, according to one expert, that "face sealed EIFS are fundamentally flawed as cladding systems for most applications." Others assert that the system is not inherently flawed, but rather poor installation techniques exacerbate its lack of accommodation for moisture that penetrates the outer barrier.[68]

EIFS combines a finish surface with layers of foam insulation and adhesive which are applied over the building sheathing. The outward finish, what looks and feels like stucco, is a mixture of polymeric bonded aggregates, coloring pigments and cement applied to a fiberglass mesh embedded in adhesive. Below this mesh are two layers of expanded polystyrene (EPS) rigid foam insulation which are also joined with an adhesive. These foam layers are installed directly over the building sheathing. Figure 2.106 provides a sectional view of how these elements appear to be assembled on the Pelham library walls.

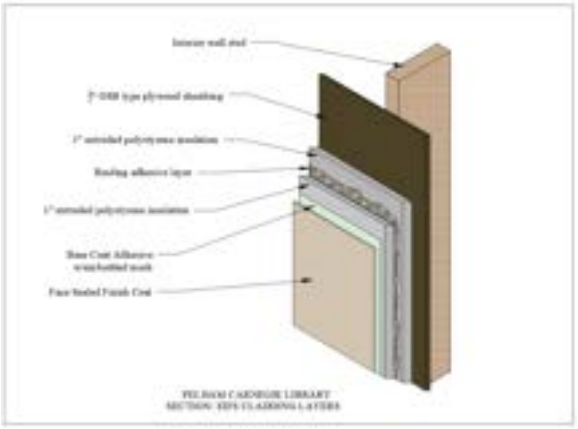


Figure 2.106. Sectional view of EIFS cladding on the library modern addition.

Wall samples indicate the veneer coat is, in fact, a color-impregnated mixture with a heavy adhesive backing embedded in mesh.

Figure 2.107. EIFS Sample from addition exterior wall. Photo by author.

The two sheets of EPS insulation, each measuring 1" in thickness, are bound by an uneven layer of adhesive. This adhesive appears to have been applied in a "dab and ribbon" technique which is not recommended for use on wood sheathing.

[68] Joseph Lstiburek, "EIFS Problems and Solutions," Building Science.com Corporation. https://buildingscience.com/documents/digests/bsd-146-eifs-problems-and-solutions.

Figure 2.108. Two sheets of 1" EPS were installed. Photo by author.

As every builder has learned, probably since the dawn of construction, water always wins. The most damaging aspect of the "perfect barrier" or face-sealed EIFS configuration is that water once inside the veneer has no means of escape. Modern variations of this technology are now configured to include a drainage plane which allows penetrating moisture to exit *outside the foundation plane.* The face-sealed system of past decades did not, and poor installation technique worsened it. As a result, the moisture can migrate inward through the sheathing and stud bay insulation and ultimately to the gypsum (drywall) on the interior. Along the way, mold and material rot are often the consequence. There are several spots on the interior walls of the addition where heavy discoloration suggests moisture is present inside the wall cavity.

Figure 2.109. Evidence of water penetration and decay on interior baseboard in the addition's northwest corner (partially obscured by bookshelf). Photo by author.

While cracks or penetrations to the exterior veneer are the most likely entry point for moisture, window openings and wall seams have also been noted as common penetration points.

Figure 2.110. In addition to punctures to the veneer, window openings have also been noted to fail. Photo by author.

In terms of design, the exterior walls of the addition mirror the layout of the historic structure. There are two belt courses as well as an upper-level cornice configuration. All these horizontal elements as well as the water table course and the ADA-compliant ramp are constructed with or wrapped with EIFS materials.

Figure 2.111. All the addition's exterior wall features, like the water table pictured above, are constructed with EIFS. Photo by author.

Condition Exterior Modern Walls

The exterior walls of the addition show numerous dents and punctures. These vary in size and depth, but all are likely entry points for moisture.

Figure 2.112. Damaged EIFS cladding on ADA ramp pier. Photo by author.

Figure 2.113. Indentations on southwest wall. Photo by author.

On the south side of the hyphen that connects the historic building with the addition is the building's most significant exterior wall failure. There are two areas of concern with this wall section. The entire vertical seam where it meets the historic face brick appears vulnerable to water intrusion with only a silicone caulk finish.

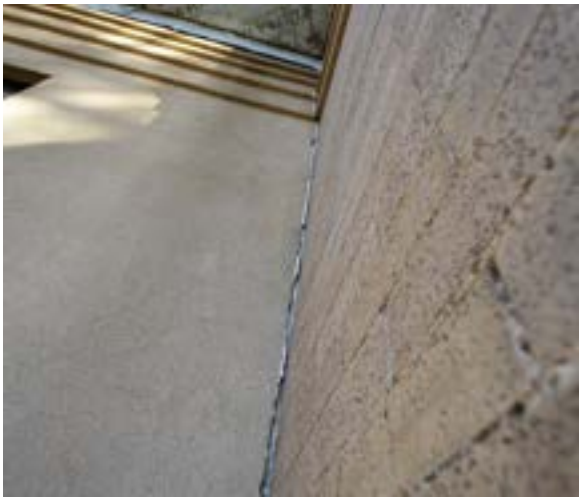


Figure 2.114. Poorly sealed vertical seam where addition joins historic building on south side. Photo by author.

In addition, the seal around the casement window just to the left of this vertical seam failed some time ago and, probably for a period of years, allowed water directly into the wall cavity. *The result was the complete deterioration of the exterior sheathing and load bearing wall studs inside the wall*.

Figure 2.115. Complete weather seal failure on upper casement window on hyphen south side. Photo by author.

Figure 2.116. Full material failure inside the load bearing wall behind the casement window, hyphen south side. Photo by author.

At present, this section of wall is being held up by the Styrofoam insulation, the thin coat of artificial stucco (less than ⅛"), and the interior ½" gypsum board (drywall). None of these elements are rated for this task. This leak is also the likely cause of the significant wall damage inside both the historic building and the addition. Evidence is seen in the southwest corner of the historic building, the southeast mid-section of the addition's interior wall and the decayed floor in the south side, first-floor bathroom.

The leak may have originated higher up the wall, at the cornice or gutter and then led to the decay of the window trim. At present, the accumulated debris in the wall cavity is not sopping wet which suggests the problem was partially repaired by the new roof installation in 2016. At the same time, there is a gaping hole visible in the window opening so water is still entering the wall cavity and ultimately finding its way to the building's lower floor.

Windows

There are seventy-one windows in the Pelham Library. Their designs embody a variety of shapes and sizes but only two styles: thirty-eight are double sash and (we believe) double hung and thirty-three are fixed casements. Thirty-six of

these windows are in the historic building and thirty-five are in the addition. A full evaluation of every window is provided in the Appendix of this document in the Window Survey Table.

Windows: Historic Building

Thirty-two of the windows in the historic structure are one-over-one double sash.

Figure 2.117. There are thirty-two one-over-one, double sash windows in the historic building. Photo by author.

It could not be confirmed during evaluation if the upper sashes were designed to be operable. It is likely they were but at present, all are pinned by a nail in the exterior jamb.

Figure 2.118. Nearly all the upper sashes of historic windows are pinned with nails in frame. Photo by author.

All the rough openings for these double sash windows measure nearly seven feet in height (6’ 10”). Their width ranges from 48” to 36”.

Figure 2.119. The historic double sash windows are 6'7" high and either 36" or 48" wide. Photo by author.

All the double sash windows in the historic building use a conventional sash cord, pulley, and embedded counterweight system. Only two of these historic windows are still operational (2nd floor kitchen west).

Figure 2.120. Mechanism is traditional sash cord, pulley, and embedded counterweight. Photo by author.

The window sashes are built with 2 ½" rails and 1 ½" stiles. The interior edge of the sash is milled with a simple ogee profile.

Figure 2.121. Sashes are traditional dimensions with milled ogee profile. Photo by author.

A third of the windows in the historic building (13x) have replacement plexiglass on at least one sash. Where the ⅛" glass panes are still intact, the visible irregularities of bubbles and waves indicate some of these windows were manufactured with a rolled glass technique which was still common in the early decades of the 20th century.

Figure 2.122. Some of the glass exhibits characteristics of antique rolled manufacturing. Photo by author.

The hardware on the double sash windows is comprised of a simple latch and two morticed pulls on the lower sashes.

Figure 2.123. Hardware on historic windows. Photo by author.

These sash pulls may not be historic. A close examination shows an overpainted ghost outline from a previous configuration. This was observed on most of the first and second floor historic windows.

Figure 2.124. Evidence of prior hardware set observed on most lower sashes. Note ghosted outline highlighted by red arrows. Photo by author.

The interior window casing utilizes 1” x 5” stock in a traditional picture frame configuration. Each casing is topped with a crown molding. The top of the stool (sill) is 50” inches above the floor. The second-floor window stools are 47” inches above the deck.

On the exterior of the historic building, window frames are made of 8/4 stock. The weather seam is capped with a profiled flat molding. The width and exact profiles of these moldings vary across many of the historic windows.

Figure 2.125. Exterior wood frames with molding. The condition of these frames and molding vary greatly around building. Photo by author.

For the large window openings (45+”), a split steel lentil supports the brick. The narrower openings (36” +/-) are supported with a masonry jack arch design.

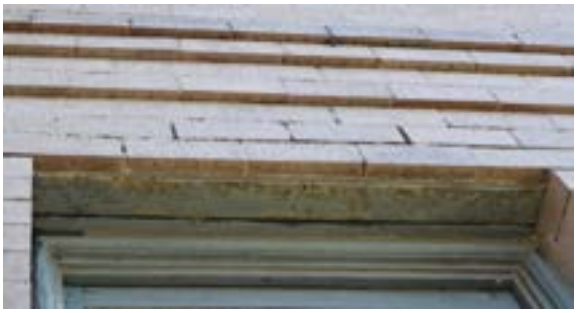


Figure 2.126. Steel lentil above larger historic windows. Photo by author.

Figure 2.127. A masonry jack arch above narrower windows. Photo by author.

Five of the double-hung windows on the north and east exterior elevation of the historic building are topped with bracketed amalgamated copper hoods. The blind windows on the north elevation are also topped with these hoods.

These character-defining features are composed of a molded cornice and frieze supported by pairs of classically inspired corbels. The total width of the hood assembly is 6’ 8” with a height of 48” including the brackets. Their projection off the building is approximately 18”.

Figure 2.128. The original window hoods are located on the first-floor windows (and blind windows) along the north and east side. Photo by author.

Figure 2.129. A classically inspired corbel adorns each side of the hoods. It rests on an engaged masonry column which runs to the belt course. Photo by author.

In a small detail that adds to the building's thoughtful design, the vertical line of the hood's corbels is continued to the granite belt course by a column of projecting header bricks. This same approach is present on many of the second-floor windows (not the south side), although this application utilizes a full stretcher width (8") to articulate the column.

Figure. 2.130. Note vertical masonry detail framing windows.

Windows: Modern Addition

The windows in the addition are a mix of shapes, sizes, and styles. Six are double sash/double hung with a one-over-one lite pattern.

Figure 2.131. A double sash window in the modern addition. Photo by author.

Twenty-nine of the windows in the addition are fixed casements. As previously noted earlier in this report, the most prevalent size and shape are the small starburst SDL casements.

Figure 2.132. 2' x 2' starburst casements are located on all sides of the addition. Photo by author.

There are also eight nearly square (45" x 49") casements and six quarter-round configurations:

three are profiled left and three are profiled right.

Figure 2.133. Upper casement window elements on modern addition: square and quarter round configurations. Photo by author.

All the windows in the addition are a combination of wood sashes capped with vinyl trim elements. As previously noted, the small starburst casements have vinyl simulated divided lite grids. The double-hung windows utilize a vinyl jamb divider with a spring tension mechanism.

Figure 2.134. Vinyl jamb divider and spring mechanism on double-hung windows in Addition. Photo by author.

The exterior treatment of the modern windows varies between the double hung units and the casements. All the casements, large and small, are simply recessed in the frame created by the synthetic stucco corner. There is no trim or flashing.

Figure 2.135. No formal exterior casing on addition windows. Photo by author.

The double-hung windows are framed by a set of engaged, narrow pilasters. Between these vertical elements sits a slightly recessed rectangle within which the actual window frame resides.

Figure 2.136. Double-hung windows are framed with engaged EIFS columns and protruding sills. Photo by author.

A close examination of these windows, where it was possible, indicates many of the casement sills have been covered with a copper apron. The presence of silicone caulk here suggests these modifications were made after original installation.

Figure 2.137. Copper sill covers appear to be a modification. Photo by author.

The interior treatment of the modern windows mirrors the approach used in the historic building. Cased with 1" x 6" (nominal) in a picture frame configuration, the modern double hung windows are also topped with a crown molding.

Figure 2.138. Conventional picture frame casing for interior trim. Photo by author.

The casements are also trimmed with 1" x 6" but in a mitered corner configuration.

Figure 2.139. Miter corners on casement windows. Photo by author.

Three of the windows in the modern addition are located inside the building. This balanced array of casements sits atop the second-floor balcony rail which overlooks the children's area below.

Figure 2.140. Interior balcony casement windows. Photo by author.

There is an easy to miss detail above these balcony windows: a bowed overhang with an array of decorative brackets.

Figure 2.141. Easy to miss apron roof detail over interior balcony windows. Photo by author.

Condition of Windows

An appraisal of each window was conducted during the site evaluation. Where access was possible, the window jambs, sills, sashes, glass, glazing, hardware, and casings were closely examined. The upper windows on the addition were not accessible at the time of inspection so a visual evaluation was conducted on these.

A numbered identification key was created, and detailed notes were recorded about each window condition. This information was input into a Window Survey spreadsheet and that document is provided in Appendix of this report.

In general, despite their age, the historic windows are in better condition than many windows in the modern addition. All the historic windows have suffered from deferred maintenance and unwise "improvements" like the application of silicone caulk on all seams. Additionally, some of the historic windows have decayed sills and frames, broken glass, spongy sash rails or stiles and damaged stools.

Window # 112 (south side) has a broken belt course sill.

Figure 2.142. Window #112 has a broken belt course sill. Photo by author.

Window #206 (2nd floor, southeast corner) has a fully decayed stool (sill) and a bowed sash.

Figure 2.143. Window #206 has a heavily decayed stool. Note depth of probe. Photo by author.

Window #230 (2nd floor, foyer west) has a completely rotted frame and upper rail.

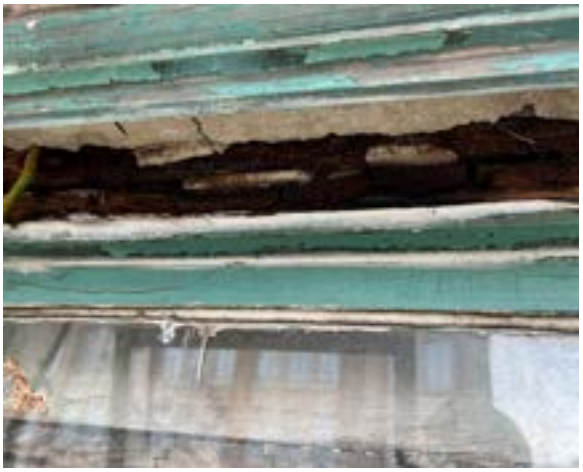


Figure 2.144. Decayed casement frame on second floor west stairway wall, historic building. Photo by author.

Figure 2.145. Window #204 has broken historic glass. Photo by author.

Some of the windows in the addition, particularly the square casements and double-hung have suffered significant water damage to their lower elements. Window #119 has a heavily damaged bottom sash rail.

Figure 2.146. Window #119 has extensive material damage on modern window sash. Photo by author.

Some exhibit full material failure, delamination, and clouded glass. The cause of this deterioration is likely a combination of low-cost materials and manufacturing combined with installation error. The EIFS cladding may also be a contributing factor. It could not be determined if any of the structural elements of the window frames *inside the walls* are damaged. This seems likely but needs confirmation.

Figure 2.147. Clouded glass and decayed glazing noted on several windows in Addition. Photo by author.

Figure 2.148. Complete EIFS separation at window frame. Photo by author.

Figure 2.149. Evidence of prior repairs to hold glass in place. Photo by author.

Figure 2.150. Fully decayed window frame. Photo by author.

An overall condition score was calculated for every window in the library. The scores reflect how much effort and resources will be required to regain functional and weather integrity. The scoring rubric ranges from 1 which is a good window needing only routine maintenance to 4 which indicates the presence of heavily damaged elements that will require replacement. A broken pane of glass or a single spongy sash rail would not, by itself, return an overall high score for the window. Therefore, scores of 2.8 and above indicate several areas of concern in a given window.

It should be noted that regardless of the conditions represented in the scores, all the historic double sash windows will require removal, scraping, some patching, repainting, and reglazing. Eleven will require new panes of glass. These measures are both corrective, for the deferred and misguided maintenance of the past, but also represent the normal efforts required to sustain historic windows.

The following is a summary of the window survey.

- 21 windows (30%) scored between 1 and 1.5. (This indicates a window that will require basic restorative care and maintenance which could include scraping, painting, and sash cord or hardware replacement.

- 21 windows (30%) scored between 1.5 and 2.0 (This indicates a window that will require some material consolidation of the wooden elements or component replacement such as epoxy filler for decayed areas or broken panes of glass).

- 22 windows (31%) scored between 2 and 3.0. (This indicates a window that will require new millwork and/or significant material restoration and/or (rarely) outright replacement.)

- 7 windows (9%) score between 3 and 4. This indicates windows that will require significant reconstruction and/or replacement.

Condition of Historic Window Hoods

There are seven copper hoods spread across the first story of the north and east elevation. Their condition is good with several specific exceptions noted below. Each hood has been numbered from west to east.

Figure 2.151. Hood identification west to east.

HO1: A portion of the embedded cap flashing has separated from the mortar and is exposing the underlying copper seam to water penetration.

Figure 2.152. Hood HO1, wall flashing separating from mortar. Photo by author.

HO4: Shows signs of chronic water pooling but no penetrations were observed.

Figure 2.153. Hood HO4 shows signs of chronic water pooling. Photo by author.

HO4: The right corner of the cornice section and the right corbel below have fractured seams.

Figure 2.154. Hood HO4, cornice corner and corbel have fractured. Photo by author.

HO5 & HO6: Show evidence of prior repairs which appear to have been done very well and are holding nicely. No oxidation noted.

Figure 2.155. Excellent and stable repairs to HO5 & HO6. Photo by author.

Doors

There are twenty-five doors in the library. Twelve are historic and date from the building's construction. A full door survey is provided in the Appendix of this Report.

Exterior Doors

The are three exterior points of egress in the building. Only the main entrance on the north elevation is historic. This entryway is the centerpiece of the monumental front façade. It is comprised of three elements: the doors, a transom window and a copper pediment and entablature.

Figure 2.156. Main entrance doorway, transom, and entablature. Photo by author.

Figure 2. 157 Historic view of doorway, transom and entablature. Courtesy of Hargrett Rare Book and Manuscript Library/University of Georgia.

The doorways, entablature, and pediment like the window hoods, are made of amalgamated copper and are historic to the structure as evidenced by an undated photograph showing a woman, possibly Mrs. Barrow, the first librarian, standing beneath it.

Figure 2. 158 Two steps were added at bottom of main entrance stairway, notice difference from historic configuration pictured above.

The floor of the main entrance is 37" above the sidewalk grade. As previously noted in this report, the present sidewalk grade is approximately 15" *lower* than the historic grade. Notice the different number of steps in the historic photograph and a contemporary image.

The main entry's transom window and doors are contained within a wood frame made of 8/4 stock faced with an ogee molding. The transom window is non-operational and is positioned flush with the interior of the wall.

Figure 2.159. Main entrance transom window. Photo by author.

The matching 2 ¼" thick wooden doors are configured with a single glass pane on the upper half, and two horizontal recessed panels on the lower half. The glass measures 21" x 41 ½". A steel astragal is mounted on the exterior of the left-hand door. Each door measures 30" x 90".

Figure 2.160. Interior view main entrance doors. Photo by author.

Upon close examination, even though the door frame appears historic, the doors themselves are old but likely not original to the structure. Although the door jamb shows no evidence of any prior hinge mountings, meaning there are no ghosted mortises from an earlier hinge set, the 5" hinges, of which there are three sets, are secured with slot headed screws along the historic jamb, but more modern, Phillips head screws, on the slab side.

Figure 2.161. Hinges appear to be historic. Note the absence of any older hinge mortises. The door is likely not original. Note Phillips head screws versus jamb side. Photo by author.

Finally, the door slab itself appears to be a composite of three separate pieces of ¾" stock. Their vertical seams are faintly visible along the door edge. This material and construction technique is entirely unlike any other historic door in the building which supports the assertion that while old, the doors are not original.

Figure 2.162. The main entrance doors may be older than 50 years, but construction is different from other historic doors in the building. Note presence of three sandwiched boards vs. one solid piece noted elsewhere in the building. Photo by author.

The threshold of the main entry is a non-historic low-profile aluminum strip capped with a rubber weather seal gasket.

Figure 2.163. Non-historic aluminum threshold. Photo by author.

The historic building has one other exit on the second floor. This non-historic modification was likely added as a safety and code compliance measure during the 1996 renovation as evidenced by the EIFS veneer above its transom window.

Figure 2.164. Exterior fire exit door. Note EIFS cladding above doorway. Photo by author.

This out-swing exit provides access to the fire escape and is equipped on the interior with a panic bar opener.

Figure 2.165. Outswing fire exit door with push bar mechanism. Photo by author.

The third point of exterior egress is a pair of wooden doors located on the west end of the modern addition. These were part of the 1990s addition project. Served by exterior steps and an ADA ramp, these are the only ground floor exterior doors that meet the ADA 36" width requirement.

Figure 2.166. ADA compliant doors on west side of addition. Photo by author.

Interior Doors

Twelve of the interior doors are historic and give the building much of its grandeur and polish. All the historic doors are made of hardwood, which appears to be an oak species, and exceed 86" in height and 30" in width. Six of the doors are arranged in paired combinations. The main floor entrance from the foyer is the most elaborate.

Figure 2.167. Main entryway inside first floor. Photo by author.

This inner portal visually connects the building's main entry and foyer with the library space. Measuring 10' 4 ¼" in height and 11' 7" in width, this entry is divided into four equal bays, with the doors in the middle two sections, and a set of flanking two pane glass panels to the sides. Two vertical posts along opposite sides of the double doors give the entry its structural integrity. A fixed casement window spans the top of the doors, and a series of recessed wood panels accent the bottom. The entire arrangement is cased with 1" x 5" oak finished with low gloss shellac.

On the second floor, two identical entryways admit visitors to the public rooms beyond. Located at the top of the stairways, these entryways measure 5' 10" in width and 9' 4" in height (exterior casing measurement).

Figure 2.168. Western pair of two entryways on second floor. Photo by author.

These inswing doors are 1¾" thick and the interior opening measures 43 ¾" x 90". They are configured with five recessed panels framed by an 8" bottom rail and 5" stiles. The species of wood appears to be oak, and the finish is a low gloss shellac. A two lite (side by side) transom window spans the entryway above the doors. The overall entry is cased with the same 1 x 5" stock used throughout the building. Crown molding decorates the top horizontal casing.

One interesting note about the second-floor entryway on the western side: the door on the west side of this doorway has a security peep hole that appears to be very old.

Figure 2.169. A peep hole located on western door of west side second floor entry. Photo by author.

To either side of the librarian desk on the first floor are a symmetrical set of doors with rolled glass panels and large transom windows.

Figure 2.170. Matching doorways bracket the librarian desk on the first floor. Photo by author.

These doors are not currently in use as access is blocked on both sides with tables and storage shelves.

Figure 2.171. Librarian doors feature a transom and textured glass panel. Photo by author.

The height of these doorways exceeds 90” and the width is nearly 4’ (exterior casing measurement). The door slab itself measures 36 ½” by 84 ¼” and is 1 ¾” thick. It is configured with three recessed panels topped with a rolled glass panel that measures 26” in width and 24” in height. The transom window is operational and is hinged at the top of the sash.

Figure 2.172. All mechanisms on librarian doors are functional. Photo by author.

Figure 2.173. Historic transom pull. Photo by author.

The hardware on these doors is all historic and in good working order.

Two other doors in the building have all the indications of being historic, but they are contained within a non-historic wall. On the second floor, the wall dividing the kitchen from the public meeting rooms is a non-historic addition but the two doors in this wall, one at either end of the kitchen, are identical to other historic doors in the building. As noted in the

modifications section, the front of this wall is non-historic but there is evidence it covers much of an original historic wall behind it.

Figure 2.174. A historic doorway within a modern wall suggests an original configuration. Photo by author.

Close examination indicates the framing on one side of these doors is historic as evidenced by the true 2” x 6” wall depth and plaster.

Figure 2.175. Historic framing located inside the non-historic wall on second floor. Photo by author.

Figure 2.176. Historic hinges on second floor doors to kitchen and utility room. Photo by author.

Also, the hinges on these two doors are antique even if the doorknob and crash plated are clearly not. It remains a mystery why a modern wall was added over the historic dividing wall.

The remaining doors in the building date from the 1990s renovation. The second-floor restroom doors are flat slabs, 1 ¾” thick, of composite solid core construction. The door openings measure 32” x 84”.

Figure 2.177. Second floor restroom doors measure 32" across. Photo by author.

The doors on the first-floor restrooms are five panel (recessed) also of 1 ¾” thickness. These doors are ADA-compliant with a dimension of 36” x 82”.

Figure 2.178. First floor restroom doors measure 36" across. Photo by author.

The exit doors on the western end of the addition are wood and hinged for outswing opening. The door openings measure 36” x 82’. It is undetermined if these doors had an automatic opener at some point. A nearby empty junction box, mounted at a low height, hints at this possibility.

Figure 2.179. Exterior access doors on western side of addition. Note low mounted disused switch receptacle. Photo by author.

Condition of Doors

The historic doors are in excellent condition. They are all functioning properly and hanging plumb in their frames. Much of hardware is original and captures an ornate era long past.

Figure 2.180. Original hardware intact and operational on many of the historic doors. Photo by author.

The modern exit doors on the addition have lost their paint finish on the exterior. The bare wood is exposed to the elements and beginning to decay.

Figure 2.181. Degraded paint finishes on the addition's exterior doors. Photo by author.

Exterior Stairs

There are three exterior stairways on the property. Two are composed of concrete or stone and one, the fire escape, is steel. There is also an ADA-compliant ramp. The locations and materials of all exterior stairs are noted below in figure 2.182.

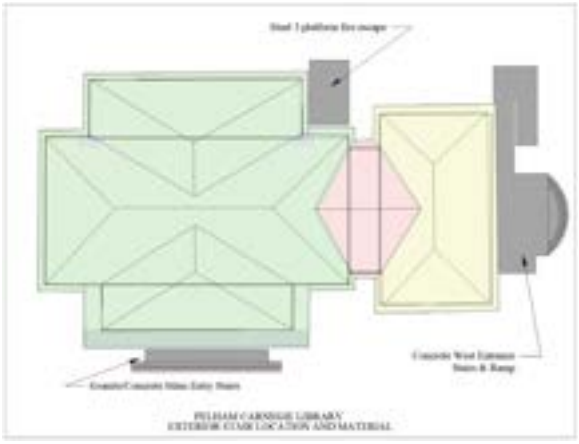


Figure 2.182. Exterior Stairs and materials.

The main entry stairs are composed of cut granite slabs measuring approximately 6” in height and 12” in width. The lengths of these granite blocks vary but the overall width of the staircase, between the cheek walls is 25’ 9”.

Figure 2.183. Main entry stairs rise 37" above sidewalk grade. Photo by author.

The staircase rises 37” from the sidewalk grade to the level of the main entry. The rise of the stairs is irregular, but averages 6 ½”. The run is 11.” A flanking set of metal handrails has been installed in the middle of stairway. These rails attach to the face brick below the column belt course and diverge outward to the final tread just above the sidewalk grade.

Figure 2.184. Non-historic handrail. Photo by author.

It is interesting to note that when the grade of the building was lowered, the first two steps were added to the stairway. These stairs are made of concrete while the original steps are granite. Notice the lack of any vertical seam in the first two risers.

Figure 2.185. The lower two steps are poured concrete. Note lack of any vertical seams unlike granite steps above. Photo by author.

The fire escape in a non-historic modification. The exact date of installation could not be determined but was likely a part of the mid 1990s addition. The staircase is made of sheet and tubular steel with concrete platforms and treads. It is attached to the building with brackets lagged into the brick façade and supported away from the building by two free standing steel columns. The upper most deck is 17’ 10” above grade. The platforms measure 8’4” x 4’6”. There are three sets of risers with nine treads each. The rise and run of the stairs are 7 ½” x 12.”

Figure 2.186 Fire escape on south side of building. Photo by author.

Condition of Exterior Stairs

The main entry stairs show signs of foundational settling. The top two blocks have lost much of their mortar base, particularly in the middle of the second-to-last tread. This block is tilting both front to back and right to left.

Figure 2.187. Settling evident to granite block on upper tread. Photo by author.

There is a strong possibility the settling observed in the stairs is connected to other cracks observed near the building's front entrance. The crack in the terrazzo apron just outside the front door aligns with these stairs.

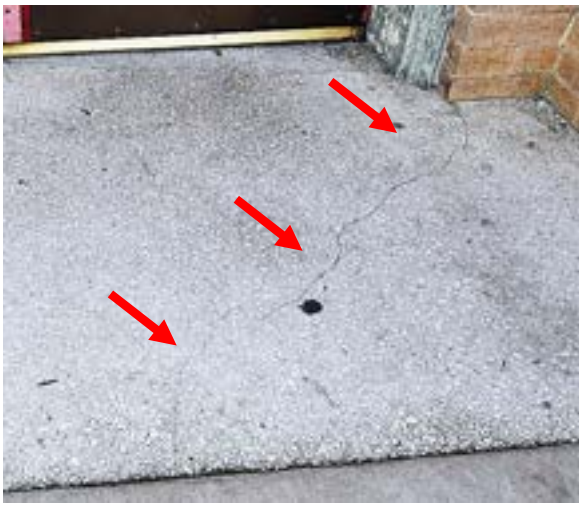


Figure 2.188. Crack in terrazzo apron outside front door. Photo by author.

Inside the foyer, the polished terrazzo floor has a significant fissure on a similar orientation.

Figure 2.189. Significant crack in main entry terrazzo floor. Photo by author.

The cause of these cracks may be the settling of the foundational pier below. It captures the weight of the stairs and a portion of the floor. Some weight is also carried by the timber seen in the foreground of Figure 2.190. The precise location and cause of this settling was not determined but the lowering of the building grade and heavy vehicle traffic on Hand Avenue, particularly trucks, may also be contributory.

Figure 2.190. The settling of the masonry pier and the supporting wood timber (yellow arrow) may have contributed to cracks in the floor above. Photo by author.

The exterior main entry stairs are also covered with several types of organic growth. This is due to the northern exposure of the building which offers limited sunlight and evaporation. As a result, moisture lingers and creates an environment favorable to molds, moss, and lichen. If not removed, these organisms can damage masonry and mortar.

Figure 2.191. Significant organic growth on main entry stairs. Photo by author.

The condition of the fire escape is sound. It remains well attached to the building, the stairs are solid and there is no visible decay on the supporting columns.

The entire staircase is heavily encrusted in dirt and grime. Some rust is visible on the handrails and platform frames.

Figure 2.192. Rust evident on various fire escape surfaces. Photo by author.

The slope of the top platform appears to slant slightly back toward the building. This may be a source of water penetration into the adjacent flooring inside the building. Decayed flooring inside indicates this may have been a significant problem in the past but, at present, the area tested dry.

Figure 2.193. The upper fire escape platform may have been a source of water intrusion into the building in the past but tested dry during inspection. Photo by author.

Interior Walls

Like the other systems in this structure, the interior walls of the library are a combination of historic craftsmanship, mixed materials, and

decay due to age and water intrusion. This section examines how the walls were constructed, how they were finished and their current condition. Paint and varnish analysis is addressed in a separate section of this report.

There are three types of walls in the building: plaster on brick, plaster on wood lath and drywall on studs. There are also several walls where drywall was applied over plaster. Figure 2.194 below provides an overview of all the wall finishes throughout the building.

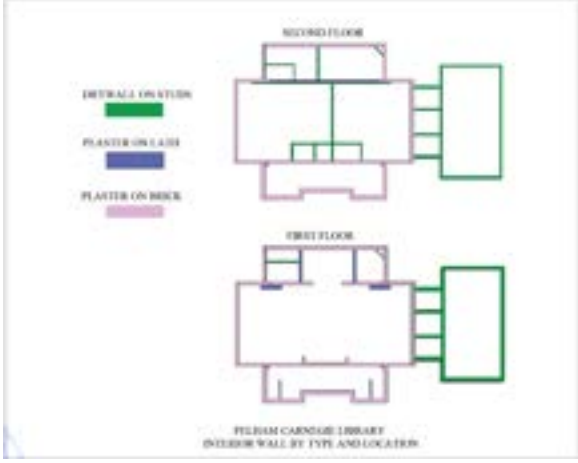


Figure 2.194. Interior wall by type of finish.

Plaster on brick and plaster on wood lath constitute account for 47.6% of the total wall square footage. A complete wall inventory is provided in the Appendix which identifies wall type, approximate square footage, and condition of finish.

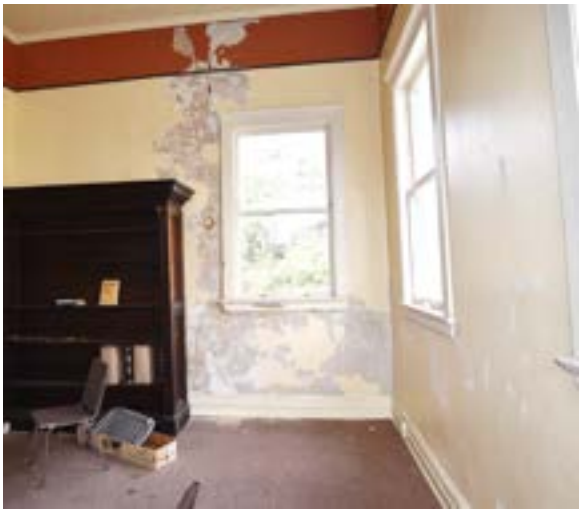


Figure 2.195. Plaster finish is historic, but several sections will require repair and restoration. Photo by author.

The plaster finish in this building is a character-defining feature because it represents a level of craftsmanship and decorative taste that significantly contributes to the building's overall historic identity. Although parts of these historic walls exhibit varying degrees of water damage, all are highly repairable.

Plaster of this historic vintage was typically applied in two or three coats (a scratch or coarse coat, a brown coat, and the finish coat). In this instance, where much of the plaster was applied directly to masonry, only a base coat and finish coat were observed.

Based on an acidity test, (mild household vinegar) the base or coarse coat is a mixture of lime, aggregate and water. An enlarged sample shows a deposit of unmixed lime, and a fibrous element which could be straw or twigs. There is no evidence of horsehair which was a common additive.

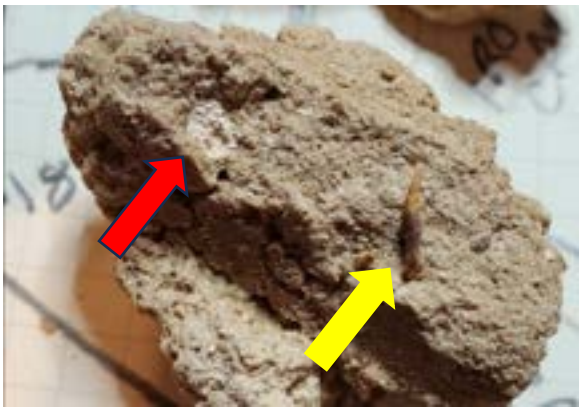


Figure 2.196. A sample of the plaster base coat. Note large lime deposit (red) and fibrous twig or straw (yellow). Photo by author.

Although the lime base coat required a long curing time (up to one year), which delayed the application of the finishing layer, it was incredibly durable as evidenced by its generally sound condition even in those areas exposed to high moisture.

Figure 2.197. Base coat integrity is good in damaged areas. Photo by author.

The topcoat, sometimes called "setting stuff" gave the wall its smooth, white surface finish. This coat was typically comprised of a higher mixture of gypsum which was quicker to dry, easier to apply but very vulnerable to water damage.

Figure 2. 198. Gypsum topcoat, smooth and hard but vulnerable to water damage. Photo by author.

Most of the plaster in the historic building is located on the historic building's perimeter walls. These exterior walls are comprised of two wythes of red common brick and one wythe of pressed face brick. The base coat was applied directly to the surface of the inner wythe. Around the fireplaces on the first floor and on the partition walls behind the librarian desk, the plaster is applied to wood lath which was nailed to 2" x 6" (actual) studs. These walls may have received a scratch coast of plaster before the brown and finishing coats.

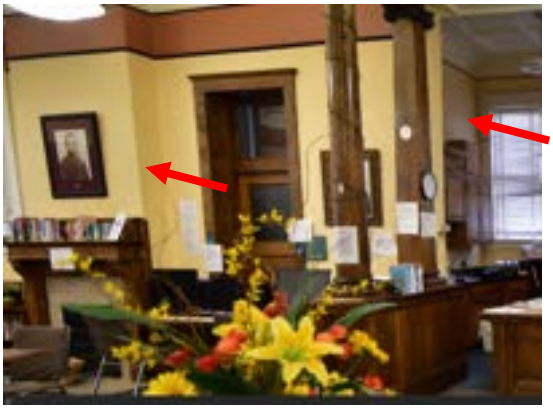


Figure 2.199. Several of the interior walls are plaster on lath. Photo by author.

In addition to the plaster finish, the first floor of the public space and parts of the foyer are rimmed with wainscoting. Measuring 38 ½" off the deck to the top edge of the cap trim, the wainscoting appears to be an oak species, but

this was not confirmed. The assembly is comprised of five elements; the 1 x 8" base board, a 2" double ogee base cap molding, 3 ¼" face (3 ½" actual) tongue and groove V-groove boards, mounted vertically, and 1" x 4" top rail and a chair rail trim cap.

Figure 2.200. Wainscotting covers the perimeter of the interior first floor walls. Photo by author.

Approximately 50% of the library's interior walls are covered with conventional ½" gypsum board (aka drywall) mounted to the wall studs. The seams are taped and sanded providing a smooth, seamless surface.

Figure 2.201. Approximately 50% of the interior walls are drywall with taped and sanded seams. Photo by author.

Most of the drywall is in the addition and in the modern bathrooms although there are several places in the historic building where sheets of drywall have been applied over the historic plaster finish. This is most noted on the first and second floors of the west wall. It is likely that drywall was used here, during the 1990s addition project, to cover the multiple window openings that once graced this side of the building.

Figure 2.202. The walls on the western side of the building have drywall covering on top of the historic plaster. This is likely to cover the old window openings whose approximate locations are shown in yellow. Photo by author.

One area of uncertainty concerns the actual framing configuration of the modern addition's perimeter walls. Their width is consistent with a 2" x 6" dimension but the specific methodology used to construct these 28' high walls is unknown.

Figure 2.203. Interior framing of modern addition walls is undetermined. Photo by author.

Answering key questions about the load path, whether the studs were stacked and what kind of fastening straps or steel plates were utilized will require additional investigation and some selective drywall removal.

Condition of Interior Walls

There is considerable damage throughout the historic building to the finish coat of the plaster walls. As detailed in the wall survey provided in the Appendix, an estimated 13% of the plaster surface in the historic building will require repair and restoration. Keep in mind that some individual wall sections, such as the stairwells and kitchen, will require more than 50% of their finish to be repaired.

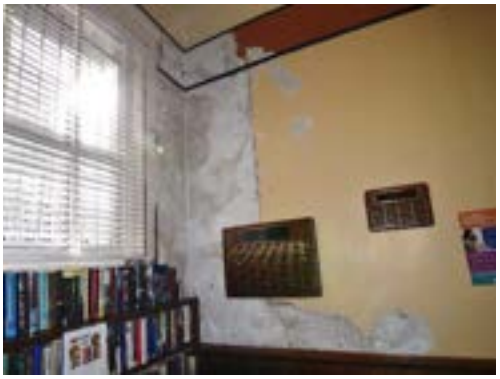


Figure 2.204. Topcoat plaster is damaged in the southwest corner of the first floor. Photo by author.

Most of this damage was caused by water and moisture intrusion which dissolved the smooth topcoat. It is a testament to the high lime content of the foundational base coat that despite this water exposure, its integrity remains good in many of the damaged areas.

As noted in other parts of this report, the source of this damage was likely a malfunctioning gutter system which channeled water into the building at various locations. Some of the water damage in the southwest corner of the first floor may have been caused by leakage from the fire escape door which dripped through the flooring above and down the first-floor wall.

Figure 2.205. Damage along the side of first floor interior wall. Photo by author.

The most extensive damage is in the second-floor kitchen and eastern stairwell.

Figure 2.206. Extensive water damage in kitchen on 2nd floor. Photo by author.

Figure 2.207. Extensive damage in eastern stairwell. Photo by author.

In the eastern stairwell, dead organic growth on the small lath section of wall built as a chase for the old bathroom stack pipe indicates how long this problem persisted. Growth of this size takes months to develop.

Figure 2.208. Large organic growth in eastern stairwell. Photo by author.

There is also evidence at different locations throughout the building on both the first and second floor perimeter walls of mold growth on the plaster.

Figure 2.209. Mold growth on walls visible throughout building. Photo by author.

The non-fuzzy, dry appearance of this mold suggests it is a non-toxic variety, but further tests could confirm the specific species of fungi. Mold occurs when humidity levels are high and air circulation within that environment is low.

There are also numerous places in the building, around the windows or doors, where the plaster has cracked at either the basecoat level or through the topcoat.

Figure 2.210. Damage to the base coat observed in places. Photo by author.

These cracks are typically the result of settling and load shifting which occurs in buildings over time. It can be exacerbated by moisture.

Figure 2.211. Two instances of plaster damage due to load shifting or settling. Photo by author.

There are several places in the stairways where skim coat repairs have been made to the topcoat plaster.

Figure 2.212. Evidence of prior repairs in western stairwell. Photo by author.

It appears a conventional drywall joint compound was used. It does not appear that the patch areas were coated first with an oil-based primer which may compromise the long-term adherence of these repairs, particularly if moisture levels remain high in the environment.

Much of the drywall in the library is in good condition. The historic building's second-floor alcoves and partition wall are smooth and largely unblemished.

In the main addition, however, the drywall has fared less well. The most significant damage is found on the second floor southside restroom. As detailed elsewhere in this report, the extensive water penetration in this section caused significant structural damage to the framing and wall finishes.

Figure 2.213. The damaged wall finish in 2nd floor southside restroom. Photo by author.

On the southeast wall adjacent and below this second-floor south restroom as well as the ceiling of the first-floor hallway in the addition, there is evidence of water invasion from behind the finished surface. The entire seam is visible, and one area has fractured. This is likely from the failed bathroom window above which dumped water inside the wall cavity which then soaked through the insulation and into the drywall.

Figure 2.214. Drywall damage on east wall of modern addition. Photo by author.

Another area of concern is along the southwest wall. A series of cracks are visible just below the window. This could be just a poorly taped seam, but likely suggests moisture penetration from the back. The window sill directly above this area is heavily damaged.

Figure 2.215. Possible water damage on southwest wall in modern addition. Photo by author.

Interior Wood Features

The first floor of the historic library is resplendent in finely crafted woodwork. The center entry is flanked by matching sets of tapered wood columns, paneled piers, and monumental interior transomed doorways.

Figure 2.216. Extensive fine woodwork throughout the first floor. Photo by author.

The circular columns are round and are constructed of vertically assembled bevel boards. It appears these columns house a structural steel post within. Each column is tapered and is accented with a wooden base detail and a cast iron capital.

Figure 2.217. Column bases are wood. Capitals are cast iron. Photo by author.

Aligned with each row of circular columns are matching box columns which are engaged with the wall behind.

Fig. 2.218. Box columns are engaged with the wall. Photo by author.

Both sets of square columns have the same base and capital treatment. The circular columns have a lower, round base but similar capitals to the square columns.

Figure 2.219. Different base details for the round and square columns. Photo by author.

All the columns sit on projecting piers which are wrapped in wainscoting and trimmed with base board and cap trim.

Figure 2.220. All columns sit on wainscot wrapped piers. Photo by author.

While the librarian desk is not a permanent fixture, it may be a modification or addition; however, its material, finish, and overall design strongly suggest it dates from the earliest era of the building. It is interesting to note that the original blueprints indicate that TW Smith, the architect, envisioned a U-shaped desk in this position.

Figure 2.221. Detail from original blueprints. Courtesy City of Pelham.

The skill of the carpenters or, more accurately, the fine woodworkers who crafted this monumental entry area is also evident in the design and workmanship of the foyer staircases. These three-quarter winder designs include beautiful newel posts, turned balusters and a detailed riser treatment which accentuates the wood grain. The construction and condition of these stairs are examined in a separate section of this report.

Figure 2.222. Outside stringer trim detail on foyer staircases. Photo by author.

A final note about the woodwork in the historic building; as impressive as it is, the overall tooling, design and detailing is subdued. It is, in almost every respect, classic Arts and Craft era understatement. The window and door casings, for example, are simple 1" x 5" stock with a chamfered edge and butt-joints. There are no keystones, miters, or grooved beads in these expressions.

The presence of columns, both free standing and engaged, are vintage design elements of this era as is the natural wood finish found on much of the antique woodwork. While all the work is handsome and beautifully preserved, one of the best specimens is hidden beneath the west staircase in a tiny space that once served as one of the public restrooms. Long since forgotten, this elegant expression of the era is embodied in the design and execution of a perfectly proportioned 23" door with textured, rolled glass, original hardware and a robust, door casing and wainscoting. Strange as it may seem, this little door really captures the essence of the character-defining woodwork in this library.

Figure 2.223. The hidden bathroom door below western foyer stairs. Photo by author.

Interior Stairs

The historic building has interior staircases located on the east and west sides of the foyer. Each staircase is a three-quarter winder which means there are three platforms with the stairway turning 90 degrees at each. The stairs are made of wood, probably oak for some of the exterior elements, and reflect a high degree of design and craftsmanship.

Figure 2.224. Beautifully crafted Interior staircases in foyer. Photo by author.

There are four sets of stringers per stairway and the rise and run on these stringers is roughly 7 ¼" x 11 ½". The platforms measure approximately 4' square and the tread length, from the skirtboard to the bull nose edging on the outer stringer, is 50".

Figure 2.225. The stairs are configured as three-quarter winders. Photo by author.

The rail height off the tread is 32" and the balusters are spaced 3 ½" on center. The handrail is a striking Georgian profile with its narrow-rounded top and flattened base. The baluster or spindles express a typical tapered "Victorian" era design.

Figure 2.226. A Georgian profiled handrail and "Victorian" era balusters. Photo by author.

The ground floor newel post is an intricately assembled column of recessed panels, egg-and-dart molding, and a solid carved finial cap.

Figure 2.227. Newel post is an intricate combination of molding, recess panels and carved finial. Photo by author.

The outer stringers are decorated with an angular pattern of raised rectangles, cove molding and thin dimension tread caps which accentuate the wood grain.

Figure 2.228. Outer stringer detailing. Photo by author.

Condition of Interior Stairs

While elements of the stairs are in excellent condition and remain structurally sound, several sections have been damaged by long term exposure to moisture. As a result, for safety reasons, the eastern stairway should not be used until repairs are complete.

The handrails and newel posts on both stairways are well secured. Spot checks also indicated that the balusters remain tightly fastened. One spindle was noted to be missing from the upper section of the eastern stairway.

Figure 2.229. Missing baluster on upper section of eastern stair. Photo by author.

The most significant water damage and material decay is located on the eastern stairs. Portions of the decking on the middle two platforms has entirely rotted along the wall and is in danger of collapse. It was not determined during inspection if the underlying stringer was also compromised.

Figure 2.230. Some material failure is evident on the 2nd and 3rd platforms of the eastern stairway. Photo by author.

Flooring

The are approximately 5,264 square feet of flooring in the library. Seventy-five percent of this is covered with carpet, 14% with an historic terrazzo finish, 5% with vinyl, 5% with ceramic tile and less than 1% with exposed wood. Figure 2.231 shows the location of these finishes in the building.

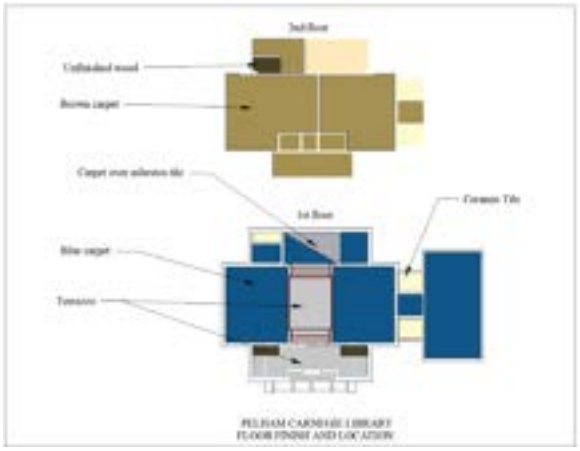


Figure 2.231. Floor finish and location in building.

Carpet is the most abundant floor finish. There are two colors: a greyish blue on the first floor and a light brown on the second.

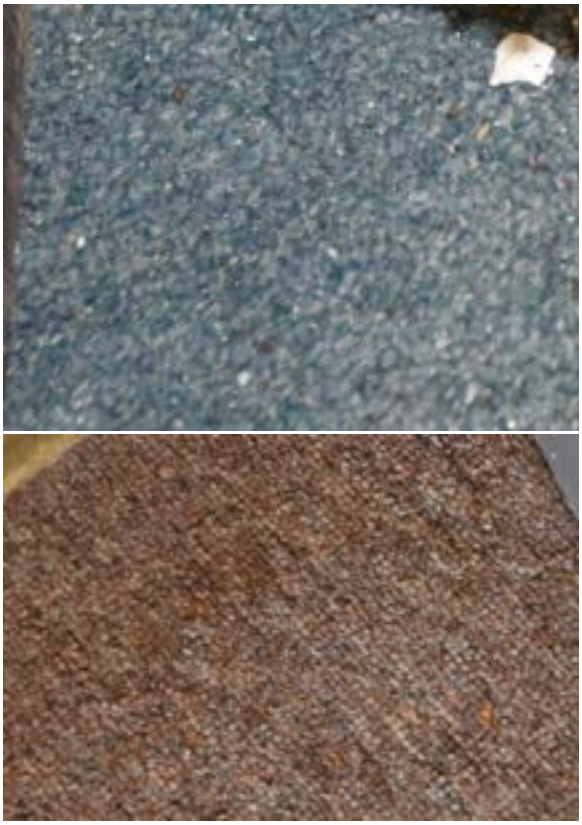


Figure 2.232. Blue carpet on first floor (upper image), brown carpet on second floor. Photo by author.

Both carpets appear to be polyester weaves designed for commercial, high-volume traffic and easy cleaning. The carpet appears to have been

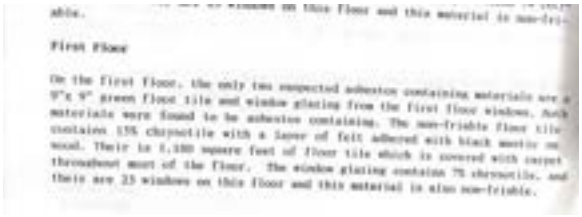
installed without padding or tack strips. Spot investigation indicates a thick coat of mastic was used as the underlayment and adhesive.

Figure 2.233. Thick layer of mastic below carpet. No padding. Photo by author.

In the circulation desk area site investigation revealed the presence of a layer of hard density, synthetic floor tiles beneath the carpet mastic.

Figure 2.234. Hard density tile flooring located behind circulation desk is likely an asbestos product and should be approached and handled according to local and state abatement requirements. Photo by author.

This covering has all the characteristics of a "9 x 9" tile which is a pre-1970 type of floor tile manufactured with asbestos. During the research phase of this project, a hazardous materials report dated April 18, 1994, and signed by Mr. Gid E. Rowell, was discovered in the library files. This report confirmed that these tiles do, in fact, contain asbestos.



First Floor

On the first floor, the only two suspected asbestos containing materials are a 9"x 9" green floor tile and window glazing from the first floor windows. Both materials were found to be asbestos containing. The non-friable floor tile contains 15% chrysotile with a layer of felt adhered with black mastic on wood. There is 1,380 square feet of floor tile which is covered with carpet throughout most of the floor. The window glazing contains 7% chrysotile, and there are 23 windows on this floor and this material is also non-friable.

Figure 2.235. Excerpt of hazardous materials report in Library files.

The original flooring on both the first and second story is tongue and groove wood flooring. On the first floor, 3 ¼" (face dimension) tongue and groove, was installed perpendicular to the joists (meaning perpendicular to the north wall). No samples could be obtained so the species of wood is unconfirmed, but the grain strongly suggests a softwood like southern yellow pine.

Figure 2.236. Wood flooring below first floor carpet. Photo by author.

On the second story, the flooring is also 3 ¼" face tongue and groove but it was installed parallel to the north wall. This means it runs parallel with the floor joist if, though not confirmed, the joists run east to west. Keep in mind, all the historic floors have an underlaying diagonal subfloor of 1 x 8 (nominal) planking.

Figure 2.237. Wood decking on the second floor runs opposite direction from first floor. Photo by author.

Microscopic analysis of a wood sample taken from the southwest corner of the second story flooring indicates a growth ring pattern consistent with southern yellow pine.

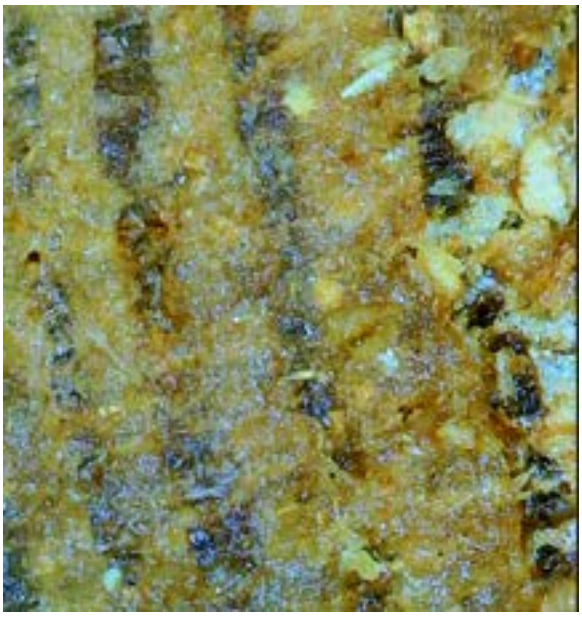


Figure 2.238. Magnified (500x) sample of decking from second floor. Ring pattern consistent with southern yellow pine. Photo by author.

It is interesting to note that the one surviving visible section of historic wood flooring, also on the second story, appears to have never been varnished or covered so the grain pattern is apparent. This section also strongly suggests that a soft wood species was used for the second story original flooring.

Figure 2.239. Unfinished wood floor section in 2nd story utility closet. Photo by author.

The flooring in the second-floor kitchen is vinyl. Likely dating from the renovation in the mid-1990s, this product was laid down in sheets, trimmed to length, then pressed against a bed of adhesive.

Figure 2.240. Vinyl flooring in kitchen. Photo by author.

It's suspected that the same historic tongue and groove wood flooring lies beneath this vinyl, although a section of this kitchen floor was discovered to be patched with plywood beneath the vinyl.

Figure 2.241. Section of kitchen floor patched with plywood. Photo by author.

The only historic flooring in the building which is visible to the public is the polish terrazzo and mosaic tile on the first story.

Figure 2.242. Terrazzo floor with red marble mosaic border. Photo by author.

Covering the entire foyer and the center entry of the main reading room, this floor is a character-defining feature of the building and, although patched in several places, retains much of its grandeur and functional durability. This combination of tiny square stones and irregular marble chips represents a flooring finish that literally dates back centuries.

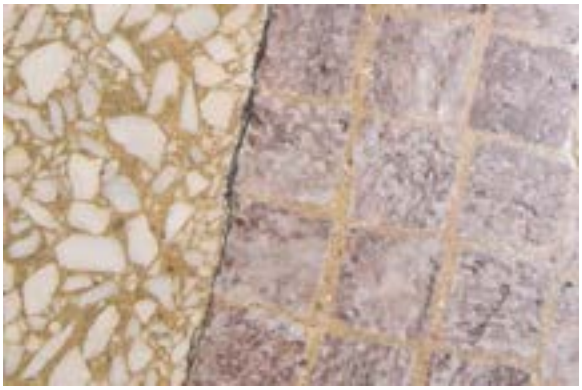


Figure 2.243. Close up view of terrazzo and marble border. Photo by author.

Terrazzo is made of discarded chips of marble, typically white but not always, pushed into a wet cement base and then laboriously polished. The square mosaic cubes are likely red marble set in mud and then filled with grout.

Terrazzo is believed to have originated in 15th century Venice, Italy but perhaps as early as ancient Egypt.[69] When the terrazzo floor was installed in Pelham in the early 20th century, this highly skilled work was the exclusive domain of immigrant Italian craftsmen, known as *terazzeri*.[70] No records have surfaced to date revealing who did the work in Pelham. It is probable, however, that in an era before electrical power tools, the grinding and polishing of this beautiful floor was accomplished by hand.

Figure 2.244. Early 20th century terazzeri floor finishers manually polished the surface. Image courtesy of National Terrazzo & Mosaic Association.

Figure 2.245. The terrazzo floor in the main reading room. Photo by author.

[69] "History of Terrazzo," The National Terrazzo & Mosaic Association. https://ntma.com/history-of-terrazzo/.

[70] "History of Terrazzo," Terrazzo Masters. https://www.terrazzomasters.com/why-terrazzo/history-of-terrazzo/.

A final note about flooring. In the historic building, all the 1" x 3 ½" tongue and groove flooring is laid over a subfloor of 1" x 8" boards laid diagonal to the joists. The section supporting the terrazzo tile is lowered and reinforced to support the added weight of the mud and stone.

Figure 2.246. The subfloor below terrazzo flooring is lowered and reinforced. Photo by author.

This contrasts dramatically with the modern addition where the carpet is laid directly on the single layer ¾" plywood subfloor.

Condition of Floors

The carpeted surfaces in the building are sound and do not pose a threat to the public but the age of this material is apparent in the high traffic areas and permanent stains.

Figure 2.247. Carpet floors are showing their age. Photo by author.

On the second floor of the historic building, in the southwest corner and in the center just west of the bi-fold doors, the wooden flooring *beneath* the carpet is spongy. A close examination of the decay in the southwest corner revealed considerable material damage due to water intrusion.

Figure 2.248. Significant material damage to 2nd floor decking in southwest corner of historic building. Photo by author.

The source of this water was likely inflow from the fire escape platform located on the exterior of the building. The area is dry now, but a small floor sample indicates the structural integrity of the decking is compromised in this area.

Figure 2.249. Decayed sections of 2nd floor decking. Photo by author.

The terrazzo in the main library space is in good condition but there is evidence of past repairs. On the second red stripe from the main entry, an 8" section has been re-installed and re-mortared. The grout is not an exact match, and the

craftsman appears to have overcut the perpendiculars during the project.

Figure 2.250. Previously repaired section of terrazzo in main room. Photo by author.

In the mid-section of the main terrazzo field near the eastern edge, several repairs have been made. Small sections of the finished surface have been patched with the sand-colored grout.

Figure 2.251. Additional patched areas in terrazzo flooring. Photo by author.

The condition of terrazzo floor in the main foyer and out onto the front stoop also shows evidence of damage. As noted in the Exterior Stairs section of this report, there are several significant fractures in this area of flooring. These strongly suggest some foundational settling has occurred. In addition to the large crack between the main doors, there are also corresponding smaller cracks near each set of stairs and two smaller fractures on the exterior front apron.

Figure 2.252. Cracks in terrazzo flooring on corresponding areas of the foyer near beginning of stairs. Photo by author.

Ceilings

The library has three types of ceilings: fabricated steel, bead board, and drywall. Figure 2.253 provides an overview of where these ceilings are located.

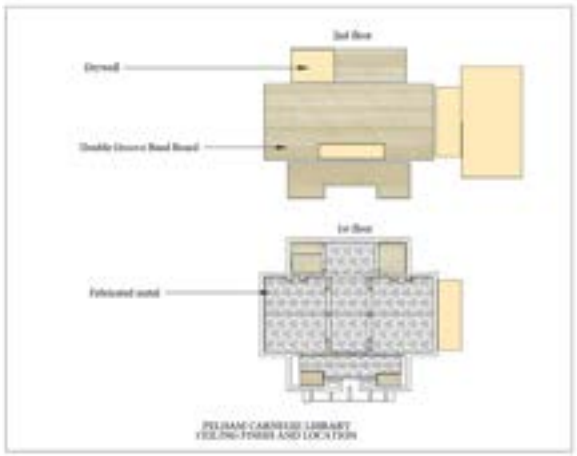


Figure 2.253. The ceiling finishes and location in the building.

The fabricated metal ceiling is the most prevalent in the building.

Figure 2.254. Fabricated, pressed metal ceiling is the most prevalent ceiling finish in the building. Photo by author.

Commonly called "tin ceilings," even though most were made of sheet steel or galvanized iron, the decorative version in the library is a beautiful example of a highly popular trend in the late 19th and early 20th centuries.

Dozens of variations were offered by manufacturers such as W.H. Mullins of Salem, Ohio who listed six designs in his 1894 catalog. In addition to being less expensive than decorative plaster or woodwork, metal ceilings were also marketed as a fire separation between floors.[71]

Figure 2.255. Sample metal ceiling designs from W.H. Mullins catalog (1894).

In most applications, a builder would send their measurements off to the manufacturer who would calculate the exact layout. Orders were shipped with assembly instructions and local craftsmen put the ceiling in place.[72]

Five separate components make up the library's metal ceiling: field panels, molding, filler, wall cornice and frieze.

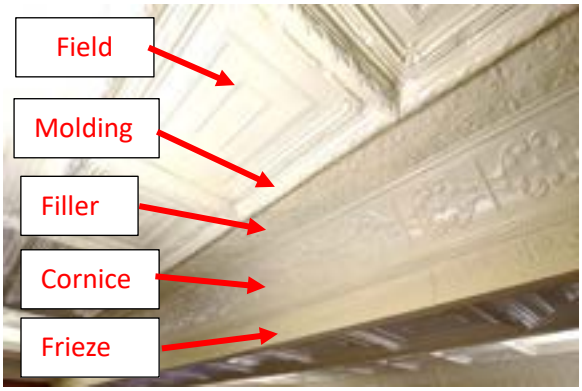


Figure 2.256. Elements of the metal ceiling in the library. Photo by author.

The field pieces measure 24 ½" x 24 ½". The molding is 4" wide with a projection of 3". The

[71] Kaaren Staveteig, "*Historic Decorative Metal Ceilings and Walls: Use, Repair and Replacement*," Preservation Brief # 49, National Park Service. April 2017. https://www.nps.gov/orgs/1739/upload/preservation-brief-49-metal-ceilings-walls.pdf.

[72] Staveteig, 2.

filler is approximately 6" and the cornice is 5" wide with a height of 9". The frieze pieces (3" +/-) are only used where the cornice rests on a descending beam such as over the room's center section. Along the walls, the bottom of the cornice terminates with a low-profile wood molding.

Figure 2.257. Cornice pieces are trimmed with small wood molding. Photo by author.

To cover the interior and exterior corners of the cornice, overlaying acanthus leaf trim was used to hide the exposed edges.

Figure 2.258. Exterior and interior corners are covered with acanthus leaf trim. Photo by author.

Metal ceilings were nailed, piece by piece, to strapping which are narrow, 1 ½" – 2" wood strips fastened in a grid pattern to the bottom of the ceiling joists. Whether this method was used in the library is unconfirmed. Random push tests at different parts of the ceiling field showed very little depression which suggests the metal ceiling was affixed to a full wood backing already in place, perhaps like the bead board on the second floor.

The fasteners holding the ceiling in place are small, more like brads than nails, but up close are clearly visible.

Figure 2.259. Ceiling elements fasteners with small nails on tight pattern. Photo by author.

A great view of the metal ceiling can be had on either of the foyer staircases. These angles show the dramatic relief intrinsic to this historic metal ceiling.

Figure 2.260. View of ceiling in foyer. Photo by author.

The other prominent historic ceiling material in the building is a 1" x 4" (nominal) tongue and groove bead board.

Figure 2.261. Beadboard ceiling on second floor. Photo by author.

A side view of this ceiling indicates the bead is grooved in a “W” pattern (as opposed to Nickel, V or Standard.) This profile view also suggests that the wood species, like so much of the wood in this building, is probably southern yellow pine.

Figure 2.262. "W" pattern groove in beadboard. Photo by author.

The beadboard was installed parallel to the north wall which is consistent with the framing for the second-floor ceiling.

Figure 2.263. Beadboard runs parallel to the north wall. Photo by author.

The edge of the bead board ceiling is dressed in a 4” crown molding that is miter cut in the corners. This molding may not be historic.

Figure 2.264. Trimmed with a mitered crown molding which may not be historic. Photo by author.

Most of the beadboard ceilings have been painted on both the first and second floors but there are several areas, most prominently the second floor foyer ceiling, that have not been painted and retain a natural wood finish.

Fig. 2.265. Natural wood finish on section of bead board ceiling below stairs. Photo by author.

Figure 2.266. The ceiling above second floor foyer retains an original wood finish. Photo by author.

The final ceiling material in the building is conventional ½" drywall that has been taped, sanded, and painted. Most of this is located on the ceiling of the main addition but several of the smaller rooms added to the historic building in the 1996 renovation also have drywall ceilings.

Figure 2.267. Drywall ceilings can be found throughout the historic building in areas altered by 1990s renovations. Photo by author.

Condition of Ceilings

The current condition of the ceilings is generally sound, but several areas on two of the ceiling types show damage from water intrusion.

The first-floor metal ceiling is in excellent condition. It appears to have been recently painted (5 yrs. +/-) with a latex product which masks any long-term decay that may exist. Structurally, the ceiling appears well fastened to the wood backing. No sections show any noticeable sagging. At the areas along the perimeter where past water intrusion has damaged the wall plaster below, some minor separation was noted between the cornice, wall, and filler pieces.

At some point, probably as part of the painting project, every molding junction in the metal ceiling was meticulously caulked with white silicone. One suspects this was done for aesthetic reasons as the dark gaps of overlapping trim did not cover well when the ceiling was sprayed from below.

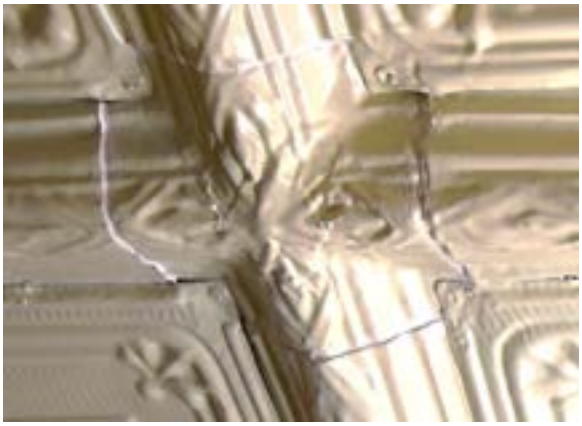


Figure 2.268. All molding seams on metal ceiling have been caulked. Photo by author.

Several sections of the beadboard ceiling on the second-floor show water damage. This is most notable in the mid-section of the eastern room and along the west wall in the kitchen. The source of the east room leak was almost certainly failure of the roofing shingles above.

Figure 2.269. Damaged beadboard in 2nd floor main room (east). Photo by author.

Figure 2.270. Damaged ceiling in kitchen area (west). Photo by author.

The damaged ceiling in the kitchen was probably caused by a gutter or flashing failure above which channeled water into the building and along the top edge of the beadboard ceiling. Both second story ceiling leaks appear dormant.

The drywall ceiling in the modern addition shows extensive evidence of water staining and some material damage. It could not be determined if these leaks are active since access to the attic above was not possible during inspection.

Figure 2.271. Ceiling in modern addition shows evidence of water damage in several places. Photo by author.

Paint Finishes- Interior & Exterior

The painted finishes in the Pelham Library are complicated because beneath the contemporary colors, which are straightforward, is a much older story of uncertain chronology.

At present, the interior walls and ceilings of the building display a combination of six colors. The first floor has peach toned walls, chocolate-colored picture molding and a burnt orange clerestory strip just below the ceiling. The metal ceiling has a matte white finish. Much of the woodwork has a low gloss shellack that may contain a stain. ***All the present painted finishes on the interior appear to be latex-based products but caution is always advised as lead-based paints may be present in earlier paint layers in historic buildings***.

Figure 2.272. First floor wall color and trim. Photo by author.

The second-floor scheme is similar with slight modifications. The bead board ceiling is also matte white, and the clerestory strip is the same burnt orange. The walls are a lighter shade of peach, and the historic double doors, doors to the kitchen and trim are white.

Figure 2.273. Second floor wall color slightly lighter, trim color appears to be the same as first floor. Photo by author.

Figure 2.274. The doors and trim are painted semi-gloss white on the interior of the second floor main rooms. Photo by author.

Determining what preceded these colors is less clear. There is significant evidence on many walls in the historic building that the earlier wall color was at least one shade of green and possibly two. Additionally, there is some evidence that the very first color was a whitewash. Complicating the story more, some of this green and white paint can be found *below* the plaster skim coat which is currently painted the peach color.

A wall segment in the northeast corner of the first floor captures this possible narrative. Note how the green patch is below the peach color plaster skim coat. Further, notice how there is a visible white coat below the green.

Figure 2.275. Damaged wall section showing possible paint chronology. Photo by author.

There are numerous other places on the interior walls where evidence of an earlier green paint can be found. Notice how most of these samples are directly on the plaster base coat with consistent evidence of a white coat below the green.

Fig. 2. 276. Multiple examples of the green on the plaster base coat with a whitewash below. Photo by author.

Close analysis of several samples shows green paint deposits on the back of the painted plaster coat. This suggests the plaster topcoat was applied on top of the green wall paint.

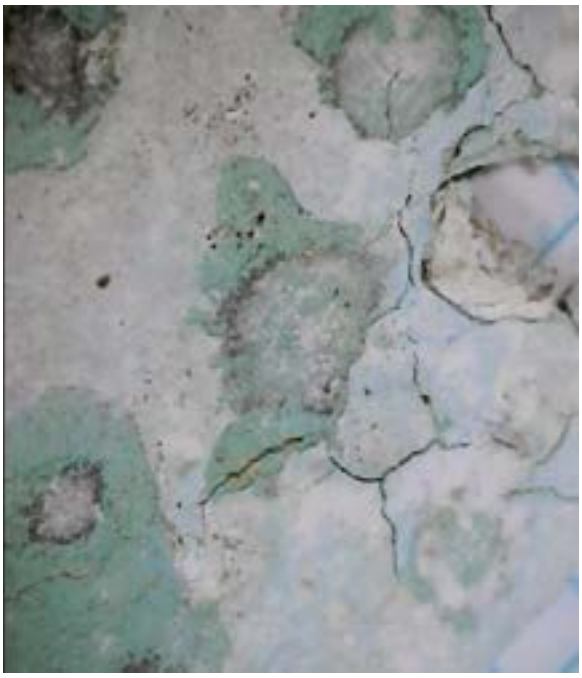


Figure 2.277. Magnified view of back of plaster coat showing green paint deposits. Photo by author.

This raises interesting questions about sequence. It would have taken the lime base coat of plaster months maybe as much as a year to dry, so for some period, the walls were simply unpainted. Maybe at the grand opening, the finish was just a matted grey. After that, evidence suggests the

plaster basecoat received a whitewash. This may have been the finish for some time or, it may have been repainted with the green noted above. If so, then at some later time, the topcoat of gypsum plaster was applied which ultimately was coated with the current peach color.

This is just a suggested sequence. A more complete analysis and color identification could be obtained from a material specialist.

The exterior of the building presents a similar multi-layered narrative. While the current color on the window and door trim is a faded green, close examination of several areas suggests earlier coats may have included a yellow, and two additional shades of green.

Figure 2.278. Exterior main entry door frame and trim showing a green, a yellow and an earlier shade of green. Photo by author.

Microscopic examination of an exterior sample does show elements of dark green, light green and a yellowish color. The exact sequence in which these colors were applied, meaning which came first and which came last, is hard to establish. A reasonable guess would put the dark green first, the yellow second, the light green third and then the existing topcoat last.

Figure 2.279. Magnified paint sample from exterior shows two greens and evidence of some yellow. Photo by author.

Electrical

The library has undergone at least three substantial electrical re-wirings. Evidence in the walls and the 1913 Sanborn Insurance Map indicates it was wired for electricity from its opening.

Figure 2.280. Detail from 1913 Sanborn maps notes building as "Lights Electric Heat Stoves." Digital Library of Georgia.

Fig. 2.281. Possible old gas light mount embedded in plaster along northeast second floor wall. Photo by author.

A buried casing in one of the walls suggests gas light may have also been present. It should be noted, however, that a cast iron pipe feeding this gas fixture was not located in the crawl space.

The building's first electrical system was knob and tube wiring. There are numerous examples throughout the building. All are dormant.

Figure 2.282. Original wiring visible in ceiling of east side foyer, beneath stairs. Photo by author.

There are also numerous examples of more modern Romex configurations. Some of these appear to be in use although the circuitry was not tested.

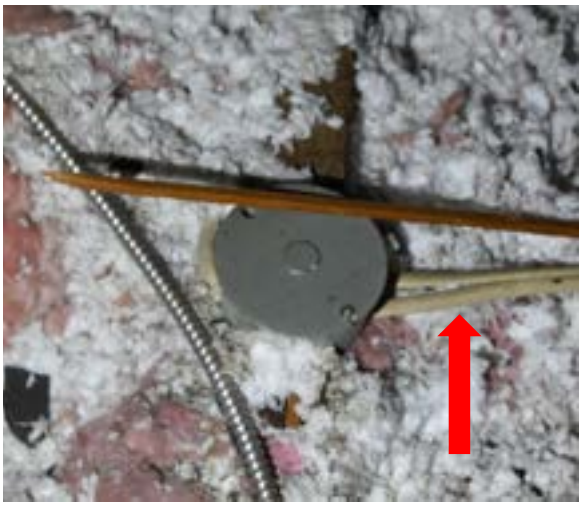


Figure 2.283. Modern Romex wiring in evidence throughout building. Photo by author.

The most extensive electrical work is also some of the most recent. In both the attic and crawlspace, dozens of new lines were run and housed in electrical metallic tubing (EMT) also known as conduit.

Figure 2.284. More recent electrical wiring housed in EMT (rigid and flexible). Photo by author.

This 1990s work also included a service upgrade, in terms of amperage. At that time, the former electrical panel was removed but the disused conduit was left in place in the second-floor utility room.

Figure 2.285. Location of old service panel. Abandoned conduit still on wall.

The most recent work appears to have been the installation of LED lighting over the first floor reading area.

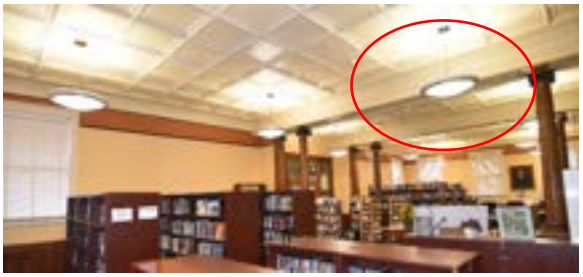


Figure 2.286. Recent LED light upgrade on first floor. Photo by author.

The electricians accomplished this upgrade by drilling down through the second floor. The floor caps are clearly visible against the carpet.

Fig. 2.287. Access caps for LED light upgrade location on second story floor. Photo by author.

At present, the building has 400 amps of service feeding a main panel located on the second floor in the southeast utility room.

Fig. 2.288. Main panel with 400 amps of service located in second story utility rooms. Photo by author.

Manufacture dates on the housing and the electricians circuit card indicate the work was completed in December of 1996.

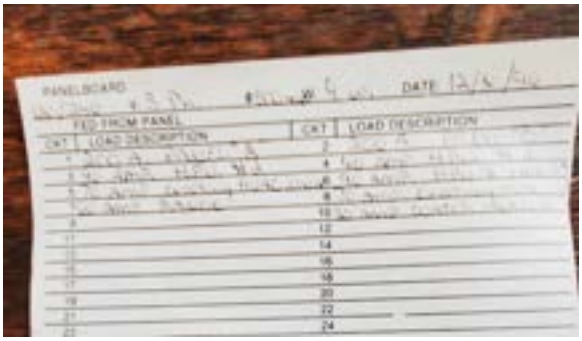


Fig. 2. 289. Electrician circuit card on main panel. Completion date highlighted. Photo by author.

This main panel splits the power to two 200 amp subpanels. One of these panels, "Panel B," is also in the 2nd floor utility room. It appears to house much of the circuitry for the building's lights and receptacles.

Figure 2.290. Panel "B" circuit card. Photo by author.

The other subpanel, “Panel A,” is on the first floor in the utility room adjacent to the circulation desk. This panel was inaccessible for inspection due to a storage rack. This rack should be moved for safety reasons.

Figure 2.291. Panel "A" inaccessible due to bookshelf. Photo by author.

On the exterior, there is evidence of numerous upgrades to the service drop. An old, disconnected entrance hood is visible just below the second-floor window on the southeast wall.

Figure 2.292. Abandoned service hood on building north exterior. Photo by author.

The active service drop is located near the southeast corner of the building and its configuration reflects modern electrical codes and practices.

Figure 2. 293. Modern service drop on southeast corner of the building. Photo by author.

There are numerous instances around the building where junction boxes have been opened but not closed. All the wires in these locations, where observed, appear to be properly secured with wire nuts.

Figure 2.294. Numerous uncovered junction boxes were found throughout the building. Photo by author.

There is also evidence in a few instances of "cowboy" wiring where lines were hastily run over the ground with no effort made to secure them. It is unknown if these lines are hot or what fixtures they might feed.

Figure 2.295. Non-code wiring in crawlspace of modern addition. Photo by author.

The building also has numerous runs of Cat 5 telecom cable. These data cables do not appear to reach the second floor.

Figure 2.296. Data cable servicing first floor. Photo by author.

The building also has conventional telephone and cable drops on the exterior of the southeast corner.

Fig. 2. 297 Landline telephone drop on southeast corner of building. Photo by author.

HVAC

The heating, ventilation and air-conditioning in the library is delivered by a mix of mechanical units and passive, fixed ducts. This evaluation only examined the physical appearance of these elements. It did not evaluate their performance or efficiency. That assessment should be conducted by a certified HVAC technician. It would also be beneficial to consult the Georgia Trust's GREEN Program which can provide energy conservation advice in the context of historic preservation.

Five of the seven mechanical units in the HVAC system are located on the exterior of the building's south wall. Two air handlers are located inside the building in the second-floor utility room. Figure 2.298 identifies the locations of these units.

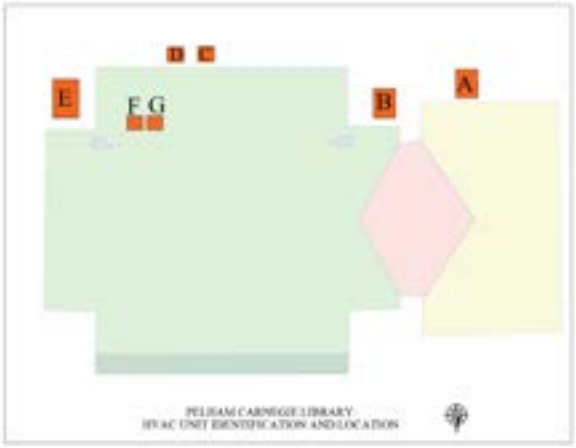


Figure 2.298. Location and naming key for HVAC Units.

The table below breaks down the type, manufacturer, fuel, and date of manufacture for each HVAC unit serving the building.

#	Model #	FUEL	Year
A	D6NZ060N11025NXA FORCED HOT AIR FURNACE WITH COOLING (YORK)	GAS/ ELEC	07/15
B	50SZ-048-301 HEAT PUMP (CARRIER)	ELEC	10/06
C	38YCB060500 SPLIT SYS HEAT PUMP (CARRIER)	ELEC	09/96
D	38YCB060500 SPLIT SYS HEAT PUMP (CARRIER)	ELEC	09/96
E	588ANW048120AEAG GAS HEAT, ELEC COOL (BRYANT)	GAS/ ELEC	08/98
F	FA4ANF060 AIR HANDLER (CARRIER)	ELEC	07/96
G	FA4ANF060 AIR HANDLER (CARRIER)	ELEC	07/96

With one exception, (Unit A), much of the HVAC equipment is probably at or near the end of its service life. A qualified assessment would provide a more detailed evaluation, but Unit B has a condensation leak and Units C & D have lost much of the insulation on their coolant lines.

Figure 2.299. Units C & D have deteriorated insulation on coolant lines. Photo by author.

The insulation on the exterior ducting for Unit B is in very poor shape.

Figure 2.300. Unit B duct insulation heavily degraded. Photo by author.

The condition of the interior ducting has also deteriorated. Some runs in the crawl space have entirely shed their insulation and one has fallen from its suspension lines.

Figure 2.301. Deteriorated duct insulation and failing hangers in historic building crawlspace. Photo by author.

The condition of the ductwork in the attic is much better. The insulation is fully intact, and the lines are properly secured.

Figure 2.302. Ducting and insulation in attic in good condition. Photo by author.

Plumbing & Gas

The library has five restrooms, one kitchen with sink, two water fountains and a sink behind the librarian's desk. Additionally, there are at least two hose bib hookups on the exterior of the building.

Figure 2.303. Fixture arrangement in public restrooms. (1st and 2nd floors) Photo by author.

The library is equipped with a small capacity electric-powered water heater which is in the second-floor mechanical closet.

Figure 2.304. Electric powered water heater. Photo by author.

At the time of inspection, all the fixtures were operating and draining properly.

In its historic configuration, the restrooms for the library were located under the foyer stairs. These areas are no longer connected but an antique wash basin and fixture can still be seen under the eastern stairway.

Figure 2.305. Surviving water faucet and basin below eastern stairway. Photo by author.

All the original cast iron waste lines have been disconnected and replaced with PVC.

Figure 2.306. Cast iron waste lines (red arrow) replaced with PVC. Photo by author.

All the water supply lines in the historic building are copper.

Figure 2.307. Water supply lines are copper. Photo by author.

Access to the plumbing in the addition was limited but evidence in the crawl space indicates PVC waste and copper supply lines were installed.

Figure 2.308. PVC waste and copper supply lines observed in modern addition crawl space. Photo by author.

There is a gas line on the property. The service drop and meter are in the southeast corner of the property. During inspection, only two HVAC units appeared to use this gas as fuel.

Fig. 2. 309. Gas meter located in southeast corner of property. Photo by author.

Section 3: Treatment and Use

Overview Preservation Treatments

The Pelham Carnegie Library is a sound structure whose overall condition reflects the value the community holds for this structure. That so many of its original materials, finishes and architectural features are intact is a testament to the care preceding generations have invested.

The Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68, 1995) outlines four different treatments a given historic project can pursue. Each recognizes a different objective for the property and is guided by different steps. Determining which treatment best suits a project is critical for short- and long-term preservation planning. The four treatments are:

Preservation *is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials, and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. However, new exterior additions are not within the scope of this treatment. The Standards for Preservation require retention of the greatest amount of historic fabric along with the building's historic form.*

Rehabilitation *is defined 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 Rehabilitation Standards acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.*

Restoration *is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project. The Restoration Standards allow for the depiction of a building at a particular time in its history by preserving materials, features, finishes, and spaces from its period of significance and removing those from other periods.*

Reconstruction *is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. The Reconstruction Standards establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.*

It is important to note that *The Secretary of the Interior's Standards for the Treatment of Historic Properties* are regulatory only for projects receiving Historic Preservation Fund grant assistance and other federally assisted projects. In other cases, The Secretary's *Standards* are intended to provide general guidance for work on any historic building. At the same time, the fact the library is part of *an existing historic district recognized by the National Register*, strongly encourages a self-regulatory responsibility toward these *Standards*.

The City of Pelham and The Library Board have indicated their desire to preserve the Pelham Carnegie Library while rehabilitating parts of the modern addition and historic second floor. They want to preserve the historic building for future generations and support its role as an operating and valued community resource. They have retained the services of an architectural firm with the intention of preserving the structure's historic character. There is every expectation that the building will continue to serve its primary role as the Pelham public library.

Standards for Rehabilitation

Considering the property owners stated objectives for the building, the recommendations provided in the subsequent sections of this report will focus on rehabilitation. The specific standards for rehabilitation provided by the Secretary of the Interior are provided below.

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.

Alterations and Code Compliance

In addition to the Secretary's *Standards* noted above, any functional alterations made to the Carnegie Library will also be impacted by a variety of state and local building codes. Only an architect licensed in the State of Georgia can properly address these specific requirements but some general considerations pertinent to early-stage planning and code compliance are listed below.

ADA Compliance: The Americans with Disabilities Act (1990) requires every public building to make "readily achievable" accommodations for people with disabilities. The most recent version of the ADA Title III regulations (28 C.F.R. Section 36.304.) specifically applies to existing structures such as The Carnegie. Precise compliance is determined by local authorities, but future use planning should recognize that certain areas of the Library will need to be adapted and modified.

- **Building Access**: In order to make the second floor of this building accessible to all patrons, a mechanized lift, such as an elevator, will need to be installed.
- **Doorways** – While the 2nd floor restroom doorways are 32" in width and therefore nominally compliant with ADA requirements, the in-swing hinge set may limit wheelchair mobility inside the restroom.

Building Codes: Code compliance for historic buildings is a delicate and complicated issue. The community's need for a safe environment as expressed in building codes can collide with preserving key elements of a building's historic significance. While the City of Pelham has adopted the International Existing Building Code (IEBC), which alleviates some of the uncertainty, every community and historic structure is unique. A general rule of thumb concerning modern building codes and historic preservation is that the greater alterations, the higher the compliance threshold.

In the specific circumstance of the Carnegie Library, its inclusion in the Pelham Commercial Historic District, a designation established by the National Register of Historic Places in 1983, qualifies it as an officially sanctioned historic structure. As such, several adopted codes in State of Georgia could favorably impact adaptive alterations of the structure.

Each of the citations listed below details how historic building compliance can be balanced with ameliorating "life safety hazards."

- International Code Council (ICC) Chapter 34, Section 3401 Existing Buildings and Structures
- International Fire Code (IFC) Chapter 1, Section 102
- International Existing Building Code (IEBC) Section 308-1
- National Fire Protection Association (NFPA 101) Section 4.6.4

Since the Pelham Carnegie Library was purpose-built as a library and has served in that function throughout its years of operation, the issue of "change of occupancy" which are the circumstances where an historic structure is significantly modified from its original purpose, would likely not apply since the anticipated future use for the library would be identical to its historic use.

As preservation plans begin to take shape, the following steps are strongly recommended as a strategy for code compliance and historic preservation.

1. Assemble an experienced team of architect/designer and contractors.
2. Identify key stakeholders such as city code inspectors, fire safety officials,

insurance company representatives and design/build team.
3. Clearly identify the preservation objectives of the building/site.
4. Communicate early and often with building and fire officials.
5. Ask inspection officials to cite the specific codes by sectional headings which impact design and build plans.

Below are four aspects of the building which are likely to be influenced by code compliance.

Foundation & Exterior Walls:

- Much of the foundation system and exterior walls of this building are in sound condition and likely code complaint given the building's anticipated future use. There are two sections, however, where the integrity of the existing construction is diminished: the northeast corner of the historic building and the HVAC portal on the addition's south foundation wall. A structural engineer's full analysis of these areas will likely be necessary to satisfy local building codes.

Floor System:

- Any modifications to the second floor which could result in large numbers of guests simultaneously occupying the space may require a reassessment of the structural capacity of the historic framing for this second floor. Access to this framing system was not possible during site investigations. Contextual clues suggest the timbers are 2"x 12" but the spacing is unknown. A structural engineer's full analysis of these areas will likely be necessary to satisfy local building codes.

Fire Safety:

- Fire codes are a set of standards created and enforced by a regulatory body for the purpose of fire prevention and human safety. Which codes apply varies by community and by the type of structure being evaluated. There are three general areas which may impact adaptations to the building's second floor.

  Fire Alarm & Emergency Lighting: The building does have a hard-wired alarm and lighting system, but the exiting placement of the sensors may not meet current codes. Additionally, both sensors on the ceiling of the Annex main room appear to have been disconnected and likely are not operating.

  Fire Suppression: Suppressing fire in a historic structure is challenging. While preserving human safety is always the paramount concern and will drive code compliance, stewards of the property must also consider how the fire suppression system might impact historic materials, finishes and the visitor's experience. Installation of a fire suppression system may be required for the safety of enhanced second floor occupancy. While historic buildings in Georgia are provided some exemptions in the State Minimum Fire Safety Standards (O.C.G.A. 25-2-13(a)(2)), the ultimate decision resides with the local fire code official who must judge the building "to be safe and in the public interest of health, safety and welfare."

  Required Exits: The library does have a safe and secure exterior fire escape but depending on the volume of guests for which the space is rated, evacuation

simulations may be required to validate the safe capacity of this existing exit.

Treatment Recommendations

Envisioning how best to preserve and rehabilitate the Pelham Carnegie Library is the domain of an architect informed by the vision of the steward. The following recommendations, therefore, focus on the viability of preserving this building's historically significant features in ways that maintain the building's connection to the past, its historic setting, and the conservation of its historic materials. Whenever possible, the building's original surfaces and configurations should be protected, and preserved.

A key component of the *Secretary's Standards for Preservation* dictates that any modifications to the historic structure be made in such a way that the "new" is clearly distinguishable from the "old." That means no faux historic touches are added or historic elements from other structures are incorporated. Additionally, when modifications are required, they should be made in such a way as to be visually compatible and identifiable under close inspection. Finally, wherever possible, modifications should be reversible without damaging the original historic elements.

Site

Utility poles: One of the utility poles (the smallest one) on McLaughlin Street appears to be largely unused. Its removal would aid in restoring the historic viewshed on this side.

Foliage: Remove the two mature high canopy trees impacting the property. The magnolia has overgrown the electrical service lines and poses a risk. The canopy of this tree also negatively impacts moisture evaporation leading to organic growth on the masonry in this corner. The pine tree is exhibiting significant evidence of disease and may be at risk of toppling. Additionally, needles and off-fall from this tree are clogging the building's southern gutter system. Finally, both trees serve as a vector for squirrels who regularly access the upper sections of the building by way of the branches.

Landscaping: The site needs vigorous and regular landscaping attention. Accumulated trash and organic matter, on all sides of the building, present an impression to patrons and passers-by that suggests the building is a place of neglect rather than value. Some thought could also be given to a dramatic reset for all the site's current ornamental plantings. At present, particularly on the eastern elevation, the current arrangement of shrubs and bushes obscures important elements of the building, most significantly the water table, the first belt course and the lower half of the historic windows.

Drainage: Re-grade the northeast corner of the lot to create a favorable slope away from the foundation in this corner.

Boundaries: Seek removal of the non-historic fences along the south edge of the property. These negatively impact the appearance of the building's south elevation. They also visually detach the library from its historic neighbor, the railroad depot. If a demarcation line is deemed necessary, consider duplicating the existing fence on the western boundary along the southern border. This style of fencing, though technically not historic, has a low profile which serves to frame the historic structure rather than detract from or obscure it.

Massing

The massing of the original historic building was negatively impacted by the 1990s addition. The arrangement and configuration of the windows and EIFS cladding system were probably envisioned, at that time, as sympathetic to the historic structure, but that sentiment appears to have lessened over the years. While this addition is not an historic asset of the building yet,

because it is less than 50 years old, and it could be removed without any consequence from a preservation perspective, such a move would be impractical and counter to what the community needs. The floor space the addition provides is too valuable to discard even if its monumental ceiling height provides little benefit. If modifications to this part of the structure are considered, they should be envisioned in such a way as to not further detract from the historic building's appearance. The creation of an elevator, for example, would ideally take place *within the confines* of the addition's footprint. It is not recommended that an exterior elevator be built on any side of the historic building.

Foundation

- All the cast iron grilles covering the crawl space windows should be removed, wire scaped (not sanded due to likely presence of lead paint) and repainted. If corrosion or rust remains, a low-pressure wash can also be used. Avoid blasting an aggregate with copper slag for this application because of the potential for material damage and electrolytic reactions.

- Retain the services of a licensed structural engineer and a mason experienced with historic materials to evaluate and implement repairs to the northeast corner of the perimeter wall. Direct the engineer to also evaluate the columns supporting the floor system in the middle of the building's crawl space. Determine if these need to be rebuilt or made plumb for proper load path support.

- Evaluate the structural integrity of the addition's south foundation wall where HVAC ducting enters the crawl space.

Exterior Walls

Treatment of the exterior walls will require two separate tasks: the step cracks should be repointed, and all the exterior surface area must be cleaned to remove accumulated grime and organic growth.

Repointing is the process of replacing the mortar joint between two brick or stone surfaces. It does not require the removal of the block material, but it does involve removing the mortar to a certain depth and replacing it with a compatible mixture. If this is not done in the areas where the mortar is failing, then weathering and decay will create voids in the joints allowing the entrance of water.

Repair Recommendations:

The areas needing repair are a variety of step cracks along mortar joints. Most are located on the upper sections of the building.

The repair should incorporate materials and methods that are sympathetic to the existing materials in character and appearance, and which provide good long-term performance. In addition, repair materials should age and weather similarly to the original materials.[73]

The process of making and completing repairs should be executed in three phases:

1. Material testing
2. Trial repairs
3. Production repair work

[73] Paul Gaudette and Deborah Slaton, "Preservation of Historic Concrete," National Park Service, Heritage Preservation Services, https://www.nps.gov/orgs/1739/upload/preservation-brief-15-concrete.pdf.

This process takes time and should not be rushed. Below are some guidelines that inform this multi-phase process.

- Test Panel: It is strongly recommended that all testing and material comparisons for the exterior wall repairs be conducted on small areas not highly visible to the public. These test areas can be used to explore different mortar mixes as well as cleaning techniques.
- Matching mortar**:** When making all repairs to the exterior walls, it is critical to match the color and mix of the historic mortar. As noted in Preservation Brief #2 published by the National Park Service, "Improperly done, repointing not only detracts from the appearance of the building, but may also cause physical damage to the masonry units themselves. "The process of matching historic mortar with contemporary materials requires a slow, iterative process of determining the correct ratios of cement, fine sand, water, and color toner." This process also takes time as each test batch must be allowed to cure before a final recipe is obtained.

The main guidelines to follow when repointing a historic structure are:

1. Removal of old mortar should be done by hand with the appropriate chisel. Power grinders, even in experienced hands, are prone to skip out of the slot and damage the brick face, particularly on the vertical joints.
2. The new mortar must match the historic mortar in color, texture, and tooling.
3. The sand must match the sand in the historic mortar.
4. The new mortar must have a greater vapor permeability and be softer (in compressive strength) than the masonry unit and the historic mortar.
5. If bonding agents are determined as necessary, make sure all excess liquid is cleaned off the historic block prior to moving to the next repair. These agents will leave a dark stain that is nearly impossible to remove once dried.

Cleaning Recommendations:

The entire exterior of the historic building should be cleaned with a non-abrasive solvent, a natural or plastic bristle brush and a low-pressure water rinse. This job is time intensive, will necessitate some testing and may require the erection of scaffolding.

There are two objectives to cleaning exterior masonry wall surfaces: remove the organic growth and reduce the accumulated staining caused by moisture and air borne contaminants.

There are several key steps to this process which are outlined below. The one overriding guideline is simple: since every masonry surface is different, even between identical materials like brick, each project should receive its own evaluation and treatment. Always test methods on an inconspicuous area of the masonry before proceeding to the full wall and record and document the most effective and least invasive solutions.

Start with very low-pressure water (below 100 psi). Soak the wall and then rinse. This initial step will reveal which areas retain dirt, grime, and growth.

Follow up with additional low-pressure spray combined with a natural or plastic bristle brush, (never metal). This method can safely remove much of the dirt and pollutant soiling found on historic buildings. It is acceptable to progress to slightly higher pressure (300-400 psi) for particularly dirty sections.

If filth or growth remain, a non-ionic detergent can be added. Never use abrasive chemical

agents, like muriatic acid on masonry. While this will remove all dirt, residual mortar, and organic growth, it will also permanently alter the brick finish and may stain or bleach the limestone belt courses.

It is best to start this process at the bottom and proceed to the top while keeping all surfaces below the working area wet. This prevents the cleaning solvents from streaking down the unclean wall and leaving marks.

Not recommended for exterior walls:

Do not attempt to return the wall appearance to a "like new" condition. All brick surfaces can and will age gracefully if soiling is not severe.

Avoid the use of spray foams or masonry epoxies. Once applied, these cannot be removed, thus permanently damaging the historic material. At the same time, it is recognized that some of the larger cracks may require filling of the void prior to applying mortar.

Do not attempt to "fix" the historic mortar patches located at various places on the exterior. The origin of these repairs is unknown, and their presence is now part of the historic character of the building.

EIFS Exterior Walls

- Shore up and create a weather seal for the upper casement window on the south side of the hyphen's EIFS wall. **This is a pressing issue and should be addressed promptly.**

How best to implement long term repairs to the exterior walls of the modern addition is the greatest challenge this site faces. Even though this segment of the building is not historic and therefore, not technically a preservation issue, its maintenance and care are central to the overall well-being of the historic site.

As noted elsewhere in this report, this early version of the perfect barrier EIFS system has significant limitations and drawbacks, due to poor system drainage and improper installation. For example, the sky facing surfaces on the belt course of the addition were installed level while most manufacturers recommend a 6/12 pitch.

Current expertise in the field strongly indicates that effective repair is possible even in cases where the mesh coat has been fractured. There is a risk, however, that those repairs will be highly noticeable and aesthetically unpleasing. In some cases, experts might suggest applying an elastomeric coasting over the entire finish coat of the EIFS to enhance water tightness. Other might recommend a full recladding which would allow for a conversion to a drained EIFS product.

Numerous resources exist to understand the issues this repair project must address. Dave Finley's overview, available on You Tube (https://www.youtube.com/watch?v=SlhxDs4V0eE) is an informative place to start.

Interior Walls

- Retain the services of a mold/air quality specialist to identify the precise nature of the organic growth on the interior walls.

The damage to the interior walls of the historic building is not as severe as it appears. Although there are many instances throughout the building where the finish coat has completely deteriorated and is absent, the underlying base coat is sound and with proper preparation done with experienced hands, can be fully restored to its original historic appearance.

It is strongly **not recommended** to replace these damaged areas with modern materials such as drywall. Traditional plaster like that found on the library walls is superior in almost every respect to modern finishes. It resists fire, reduces sound and is durable. Finally, though damaged, it is part

of the historic character of this building and warrants restoration.

The repair work should only be done by a plasterer with experience in historic restoration. It is a unique skill set and these crafts people can be hard to find. It is not recommended that a drywall contactor be used. While conventional joint compound (aka mud) can be applied to these areas and will likely result in a smooth surface, the durability of that finish is suspect, its overall longevity is doubtful, and it violates the *Secretary of the Interior's Treatments and Guidelines* pertaining to rehabilitation.

Below are some of the parameters that will impact the restoration of these plaster walls.

- Almost all the damaged plaster is on the exterior walls which are of brick construction. There are only two known areas in the building where plaster on wood lath needs repair.
- The historic plaster on the exterior walls appears to have been a two-coat application applied directly to the brick surface. No plaster was applied behind the wainscotting.
- The base coat (coarse stuff) is thick, over an inch in some places.
- The precise composition of this coarse stuff needs to be confirmed but a sample submerged in a mild acid bath showed effervescence suggesting the presence of lime.
- No evidence of bridging agents such as horsehair was consistently observed in this base coat.
- Despite significant exposure to moisture intrusion, which destroyed the gypsum topcoat, much of the plaster base coat in the damaged areas remains solidly bonded to the brick substrate.
- There is at least one area in the building where plaster damage was due to structural overloading.

A suggested sequence of repair follows:

Cleaning

This is a two-step process. The first step is to wipe the walls down with vinegar **OR** a mild bleach solution. DO NOT USE BOTH. This will kill any residual mold spores that may remain on the wall. The source of this mold was likely the widespread water intrusion from past roof leaks and poor air circulation within the building.

The second step is to clean all plaster surfaces in the building with a soft, moist cloth soaked in warm water. Apply a small dab of mild soap to the cloth and then gently scrub in a circular motion. Work from the top of the wall to the bottom. Wipe off excessive moisture from the wall before proceeding to the next section. Note all areas where the integrity of the plaster appears compromised and pass this information to the plasterer. Be sure to cover the wainscotting and chair rail or the stair platforms with protective plastic during this process. Note: do not attempt to clean the exposed base coat areas.

Windows

The windows in the historic building are a character-defining feature of the structure and should be restored. When properly restored, these historic windows can last indefinitely, and their energy performance will rival vinyl replacements. In fact, historic windows can be the "greener" choice because when the entire life of the window is considered and embodied energy calculated, repairing historic windows is better environmentally than replacements. It should be noted, however, that wooden windows require regular maintenance. Paint finishes need to be inspected, sash cords require replacing and glazing will crack with age.

Historic window restoration is a craft specialty and there an several qualified firms in Georgia. It is important to engage a historic window specialist because that will result in a higher degree of material preservation and functionality.

As detailed in the Window Survey, the thirty-six windows in the historic building have a variety of issues. Several will require significant reconstruction, but many of the others will benefit greatly from scraping, cleaning, reglazing, hardware repair, glass replacement and repainting.

It should be noted that given the age of these windows, the presence of lead paint is likely. Appropriate protective steps are advised.

The following highlights the steps involved in window restoration:

- Removal and window labeling
- Jam, sill and stool repairs. Elements may require fillers, splices, or out-right parts replacement.
- Pulley and rope repairs. Note: Where appropriate given common usage, some owners fix the upper sash in place and insulate the pulley cavity (no foam).
- Sash repairs: paint removal, patching or material consolidation, priming, repainting.
- Weatherization: Are storm windows warranted? A variety of low profile, interior mounted versions are available. Exterior mounted storm windows are **strongly not recommended** because of interference with the visual appearance of the historic building.

Ceiling

Metal Ceiling: The ornate metal ceiling is one of the most well-preserved character defining elements of the building. It needs no restoration or repairs. Regular cleanings, or vacuuming will keep it looking good. Cleaning should be done with a dampened soft cloth. Do not use scouring pads or steel wool as both would damage the painted finish and underlying metal.

Bead Board Ceiling: Damaged sections on the second-floor main room and kitchen will need to be replaced. Those ceilings have a standard dimension board (1" x 4" nominal) so availability of this stock will not be a problem, but it is important that the type of groove be clarified.

The bead board pattern in the library appears to be a "W" groove as opposed to a Nickel, V or Standard groove.

Where repair work is necessary, the new pieces should be "feathered" in on different staggers. This means the seams of the old and new wood vary by course.

The repairs will never be 'invisible.' The difference in age of the materials, even if dimensionally identical, will be apparent. This is appropriate for historic restoration and in keeping with the Secretary of Interior's guidance to make "new work physically and visually compatible, and identifiable upon close inspection."

Floors

Terrazzo: This floor is in good condition, but some restoration efforts are required particularly in the areas showing cracks in the foyer. Since the date of the previous repairs to the main room are unknown, it could be argued these are now part of the historic fabric of the building and should not be "fixed". We would recommend leaving these areas and not attempting to improve the quality of these previous repairs.

For the cracks in the foyer, repairs will require a specific series of steps. A tile professional with experience in terrazzo flooring can provide the best advice about this process. Of paramount

concern is identifying and addressing the original cause of the cracks.

Carpet Floors: The decision to retain carpeted floors or return to the original wood finish will be part of the architect's recommendations. It is likely that the carpets do not date from the period of significance (1908-1962) so an argument could be made for their complete removal. Note that the modern addition has no original wood floors. There is only plywood beneath the existing carpet.

In the historic building, we recommend the removal of the first-floor carpet and a return to the historic wood floor. This will require a significant cleaning of the mastic which was applied to the wood surface during carpeting.

In the area behind the librarian's desk, **we recommend that the carpet be replaced but not a restoration of the wood flooring**. Accessing the original wood floors in this area would require the removal of the asbestos tiles. The handling of all hazardous materials should adhere to appropriate state and local codes concerning abatement.

A thorough drum sanding with a medium grit paper will likely produce a handsome though "aged" floor. It is probable that even after sanding, this original flooring will have numerous stains and points of discoloration. These are part of its historic integrity and should not be "sanded out." Additionally, there may be areas that require patching with appropriate materials. If multiple courses of flooring are replaced, a feathering technique should be used in these areas.

The grade and species of lumber should be confirmed once a wide section of the historic floor is uncovered and viewable, but the dimension and type will likely be 1" x 4" (nominal) SYP tongue and groove.

How the restored wood floor should be finished will require future investigation once the carpet and mastic are removed. Given the treatment on the other historic woodwork in the building, it is likely the floors were stained with a color and then, perhaps, sealed with a shellac. This will be easier to determine once the floor is viewable.

The second floor is more problematic. There are at least two known areas where significant patching and repairs will be necessary for structural integrity. Additionally, the installation of the LED lights in the first-floor ceiling resulted in many access holes in the 2nd floor decking. These could be patched, or the ornamental caps could be left in place. Finally, there is the consideration of sound control. Traffic on a wood floor might create a lot of intrusive sound for patrons below in the reading areas.

Stairways

Both the stairways in the foyer will need some reconstruction, material consolidation and refinishing. The eastern stairway will require the greatest effort as it was most impacted by water intrusion.

The second and third landings of the eastern stairway, particularly along the perimeter wall are not structurally sound. These areas should be carefully opened, and the underlying stringers should be examined for material integrity. When removing the decking and baseboard, preserve as much of the original wood as possible. A master carpenter will decide the best approach, but it may make sense to entirely deconstruct each landing. This will allow for a full appraisal of the water damage while preserving the original wood. Additionally, a baluster needs to be replaced on the last section of the handrail.

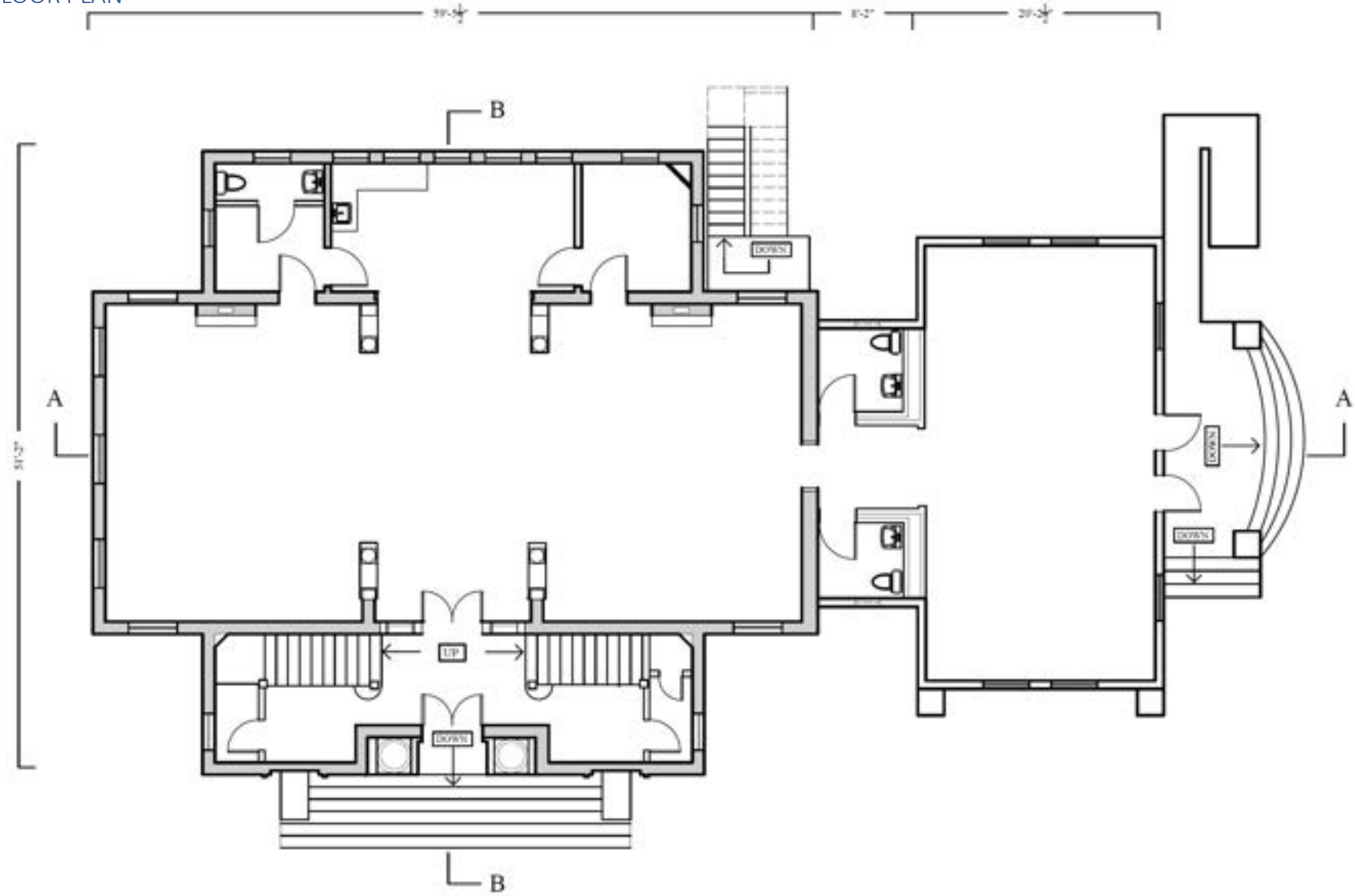
The western stairway will also require some repairs. The outside edge of the third landing exhibits some material damage. It may be necessary to remove the baseboard to determine the full extent of this decay. The

white staining on the decking can be cleaned up
with a soft towel and warm water.

Section 4: Drawings

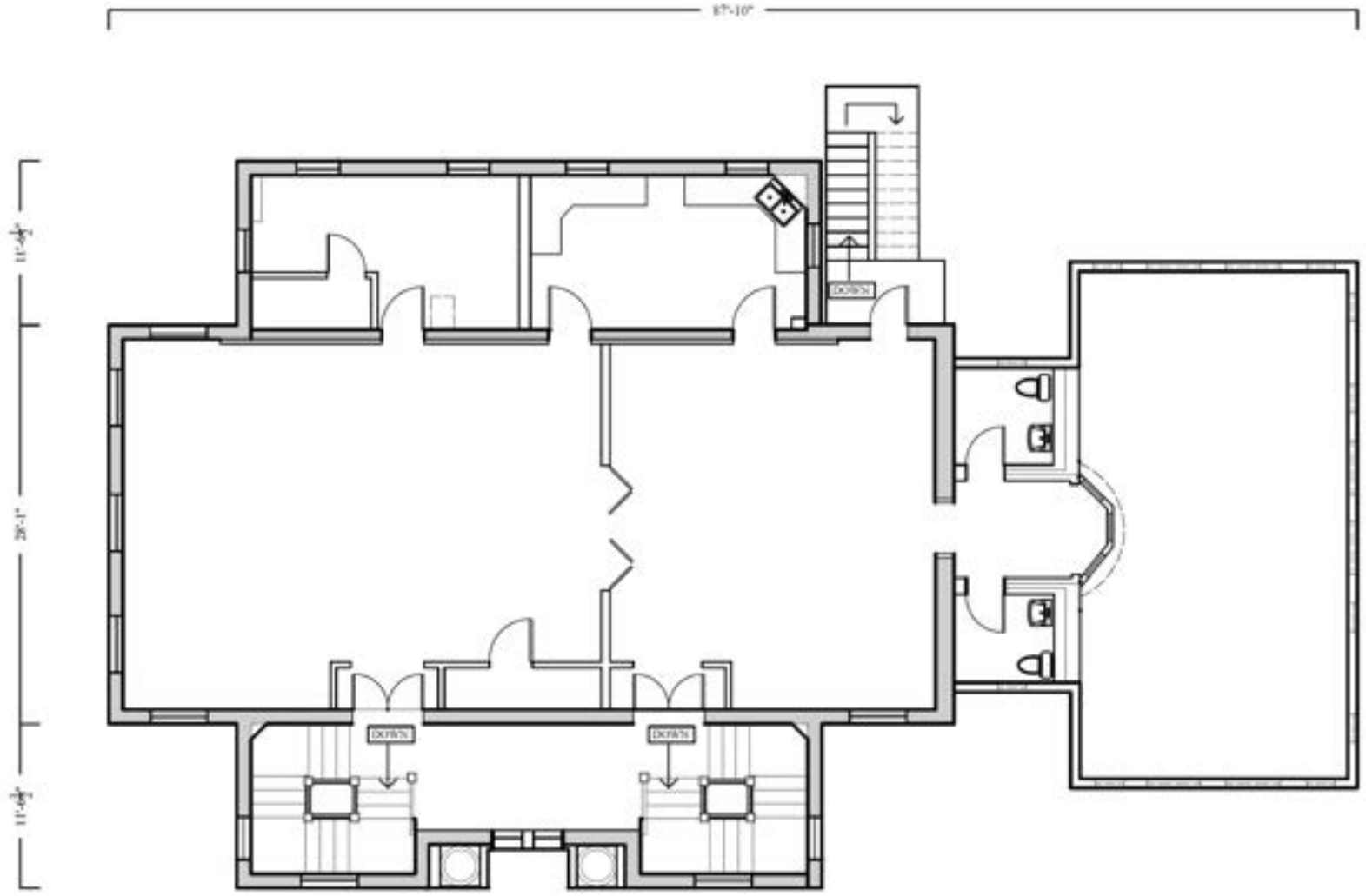
This report, including drawings, has been produced for the City of Pelham and the Pelham Library Board and is submitted as a Historic Structure Report and is not intended for use by any other person or for any other purpose.

FIRST FLOOR PLAN



PELHAM CARNEGIE LIBRARY
FIRST FLOOR PLAN

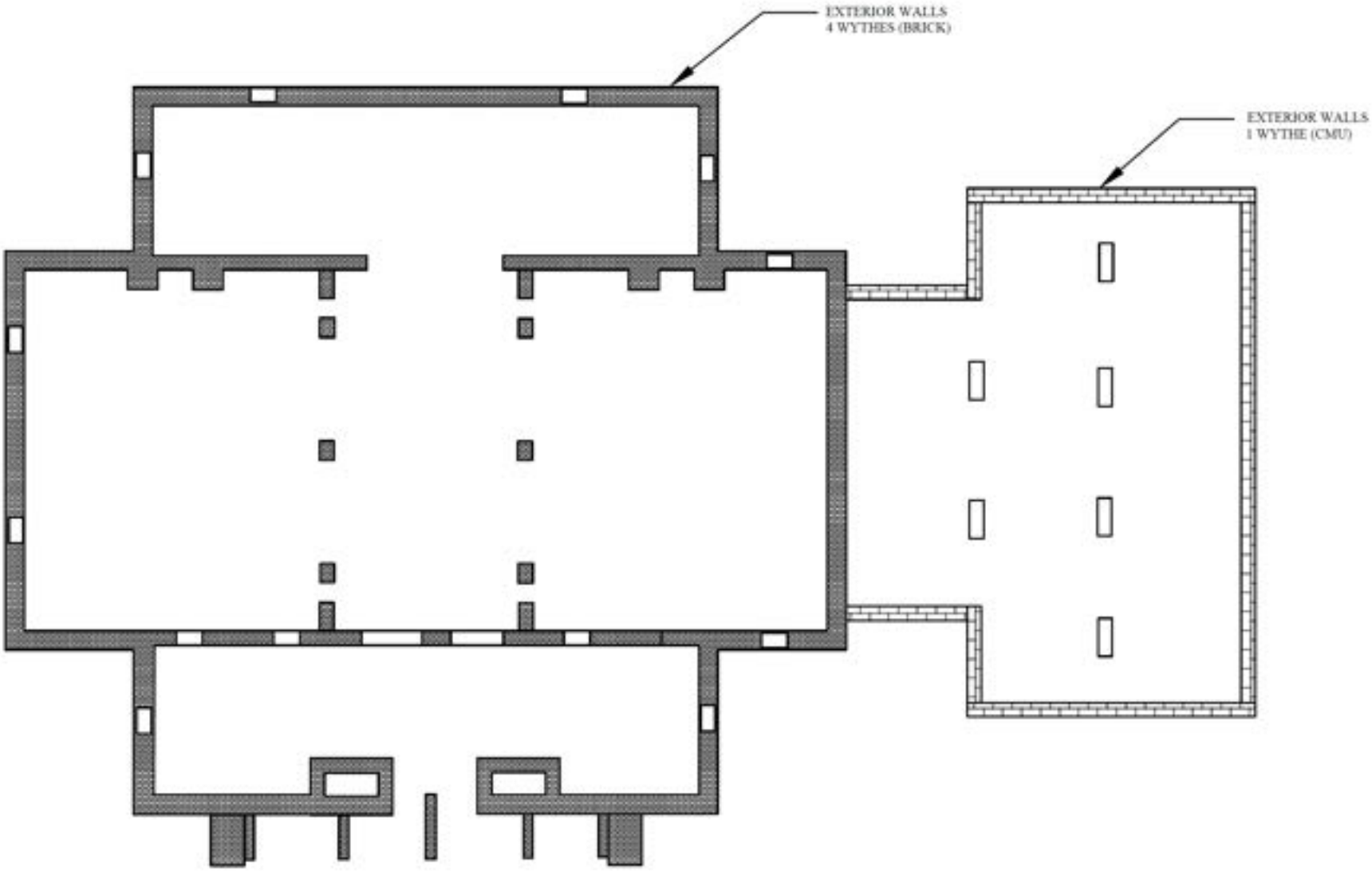
SECOND FLOOR PLAN



PELHAM CARNEGIE LIBRARY
SECOND FLOOR PLAN

SCALE 1/8" = 1'

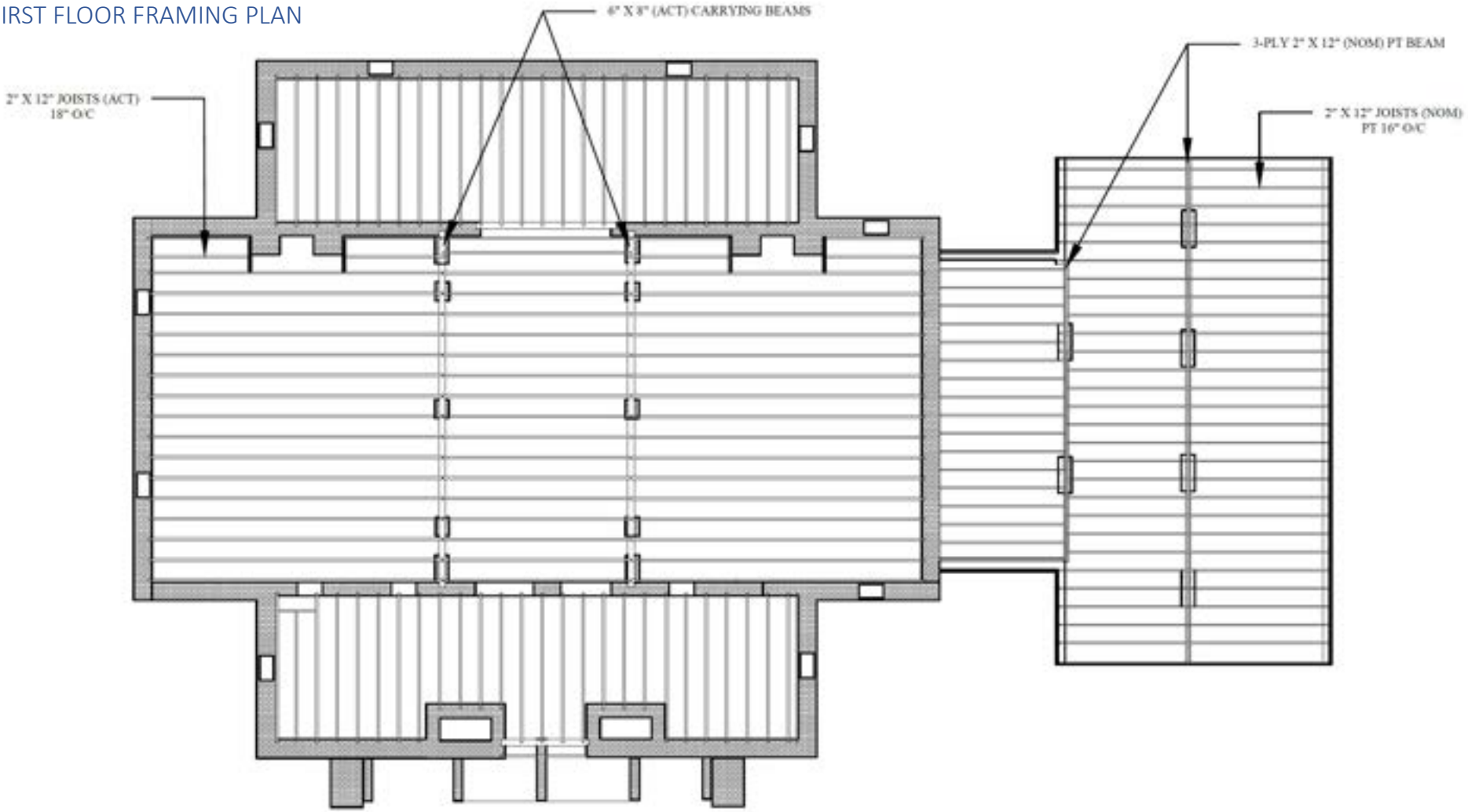
FOUNDATION PLAN



PELHAM CARNEGIE LIBRARY
FOUNDATION PLAN

SCALE 1/8" = 1'

FIRST FLOOR FRAMING PLAN



NORTH ELEVATION

PELHAM CARNEGIE LIBRARY
NORTH ELEVATION

SCALE 1/8" = 1'

EAST ELEVATION

PELHAM CARNEGIE LIBRARY
EAST ELEVATION

SCALE 1/8" = 1'

LONGITUDINAL SECTION – LOOKING SOUTH

PELHAM CARNEGIE LIBRARY
LONGITUDINAL SECTION AA - LOOKING SOUTH

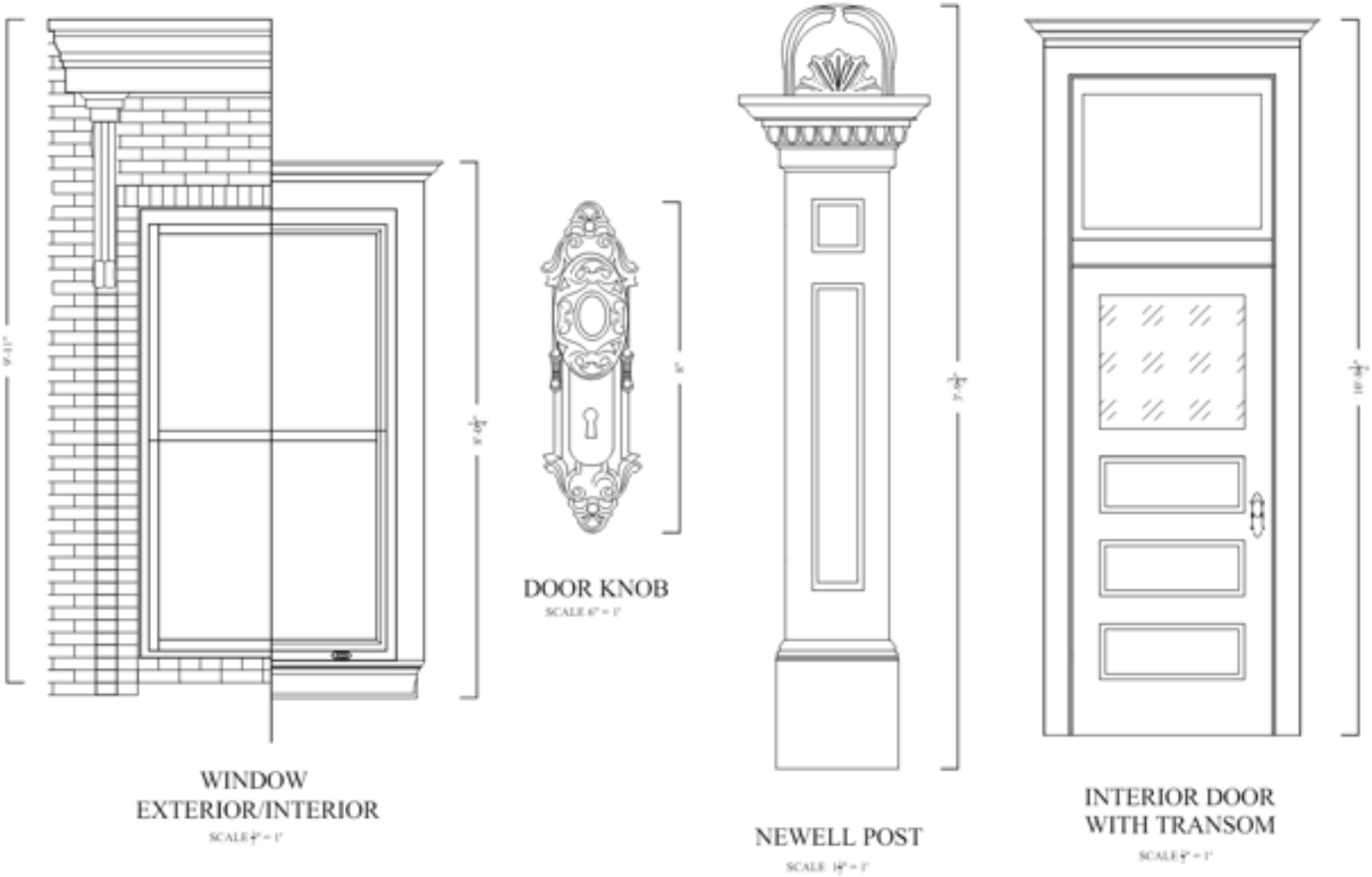
SCALE 1/4" = 1'

TRANSVERSE SECTION – LOOKING WEST

PELHAM CARNEGIE LIBRARY
TRANSVERSE SECTION BB - LOOKING WEST

SCALE 1/4" = 1'

DETAILS


WINDOW
EXTERIOR/INTERIOR
DOOR KNOB
NEWELL POST
INTERIOR DOOR
WITH TRANSOM
PELHAM CARNEGIE LIBRARY
DETAILS

Sources

ARCHIVES

Carnegie Corporation of New York Digital Archives

Carnegie Corporation of New York Records. Rare Book and Manuscript Library. Columbia University Libraries. Carnegie Public Library, Pelham, Georgia. https://dx.doi.org/10.7916/d8-9cpw-ta76

University of Georgia Libraries

Hand Family and Business Records, ms4248, Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries.
https://sclfind.libs.uga.edu/sclfind/view?docId=ead/ms4248.xml;query=hand;brand=default

T. A. Barrow family papers, ms4349, Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries. https://sclfind.libs.uga.edu/sclfind/view?docId=ead/ms4349.xml;query=hand;brand=default

BOOKS

Bobinski, George S. *Carnegie Libraries: Their History and Impact on American Public Library Development.* American Library Association, 1969.

Carnegie, Andrew. *Autobiography of Andrew Carnegie*, Cosimo Classics, 1920.

Jones, Theodore. *Carnegie Libraries Across America: A Public Legacy.* John Wiley & Sons, 1997.

Murray, Stuart. *The Library: An Illustrated History*. Skyhorse, 2012.

Northern, William J and John Graves*. Men of Mark in Georgia*. Atlanta: AB Caldwell, 1909.

Outland, Robert B., T*apping the Pines: The Naval Stores Industry in the American South*. Baton Rouge: LSU Press, 2004.

Pettegree, Andrew and Arthur der Weduwen. *The Library: A Fragile History*. Basic Books, 2021.

Rogers, Marion D. *The Building of a Town, A Partial History of Pelham, GA and Surrounding Areas 1881 – 1974*. Rose Printing Company, Tallahassee, Florida, 1976.

Spence, Margaret, and Anna M. Fleming. *History of Mitchell County.* United States: Camilla Rotary Club, 1976.

Van Slyck, Abigail *A. Free to All: Carnegie Libraries and American Culture, 1890-1920.* University of Chicago Press, 1996.

ORAL HISTORIES

Miriam Powell, interview with author. Telephone. February 8, 2024.

PRIMARY SOURCES

Grant Application Agreement, Georgia Department of Education, May 26, 1994. Includes Hazardous Materials Letter (April 18, 1994). Pelham Carnegie Library Files.

Macon Telegraph

Pelham Journal

Roof Repair Contract between Tip Top Construction and City of Pelham, 2016. Pelham City Hall Files.

Sanborn Fire Insurance Map from Pelham, Georgia. Sanborn Map Company. Pelham, Georgia. University of Georgia Libraries Map Collection, Athens, Ga., presented in the Digital Library of Georgia. 1906, 1913, 1924. https://dlg.usg.edu/records?q=Pelham&search_field=both&collection_record_id=dlg_sanb

U.S. Census Bureau. 1860 Slave Schedule – Mitchell County. Digital Library of Georgia, https://dlg.usg.edu/record/valdosta_col10428-4799_4876

US Census Bureau, Statistics of Population 1900. Table 8, 442. https://www2.census.gov/library/publications/decennial/1900/volume-1/volume-1-p9.pdf.

U.S. Census Bureau, Supplement for Georgia 1910, Table 2, 594. https://www2.census.gov/library/publications/decennial/1910/abstract/supplement-ga.pdf.

PUBLICATIONS

Black, John H., *A Manual of Face Brick Construction,* American Face Brick Association, 1920, accessed Feb 15, 2024 https://www.gutenberg.org/files/69285/69285-h/69285-h.htm#TYPES_OF_FACE_BRICK_WALL

Brick and Clay Record. *Manganese for Improving Quality*. Chicago July 11, 1922. Vol 61. No. 1., 32-33.

Ehrenpreis, Jamie E. and Ehrenpreis, Eli D., "A Historical Perspective of Healthcare Disparity and Infectious Disease in the Native American Population," AJMS, Vol 363, No. 4, 2022.

Eubanks, John D. *Judson Larrabee Hand Biographical Sketch*. Hand Family and Business Records, ms4248, Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries. Box 24, Folder 10.

Fish, Paul R., Mitchell, William W. *Late Archaic Settlement in the Big Slough Watershed: Results of an Archaeological Survey for the U.S.D.A. Soil Conservation Service in Grady and Mitchell Counties, Georgia,* Laboratory of Archaeology, University of Georgia, Lab Series #13, 1976.

Hand, Mrs. L.D., *A Brief History of Pelham*. Hand Family and Business Records, ms4248, Hargrett Rare Book and Manuscript Library, The University of Georgia Libraries. Folder 22.

Hand, Miriam Flynt. The Carnegie Library of Pelham, Georgia, The History of a Small, Free Public Library. April 1977. Accessed in Pelham Library Files, January 19, 2024.

Hinman, Thomas P., The Methods Behind a $2,000,000 Business in a Town of 3000. *System, The Magazine of Business*, September 1925.

Kevane, Michael and Sundstrom, William A., *"The Development of Public Libraries in the United States, 1870-1930: A Quantitative Assessment."* *Information & Culture*, vol. 49, no. 2, 2014, pp. 117–44. *JSTOR*, http://www.jstor.org/stable/43737483. Accessed 14 Feb. 2024. P.121

Watson, Paula D. "Carnegie Ladies, Lady Carnegies: Women and the Building of Libraries." *Libraries & Culture* 31, no. 1 (1996): 159–96. http://www.jstor.org/stable/25548429 .

WEBSITES

"1820 Land Lottery", Georgia State Archives, http://www.georgiaarchives.org/research/1820_land_lottery.

Binsacca, Richard, Architect Magazine, *The Trouble with EIFS,* (Nov 2,2004) https://www.architectmagazine.com/technology/products/the-trouble-with-eifs_o

Chambers, Raymond, "Mitchell County," New Georgia Encyclopedia, July 22, 2022. https://www.georgiaencyclopedia.org/articles/counties-cities-neighborhoods/mitchell-county/

"Clovis." Peach State Archaeological Society. https://peachstatearchaeologicalsociety.org/index.php/2-uncategorised/23-clovis-points

"History of Terrazzo." The National Terrazzo and Mosaic Association. https://ntma.com/history-of-terrazzo/

"History of Terrazzo." Terrazzo Masters. https://www.terrazzomasters.com/why-terrazzo/history-of-terrazzo/

Gaudette, Paul and Deborah Slaton. "Preservation of Historic Concrete." Preservation Brief 15, National Park Service, US Department of the Interior. 2007. https://www.nps.gov/orgs/1739/upload/preservation-brief-15-concrete.pdf

Historic Masonry Restoration Best Practices. Masonry Magazine, Aug. 29, 2009. https://www.masonrymagazine.com/blog/2019/08/29/historic-masonry-restoration-best-practices/

Loyd, Greg. "Pelham." New Georgia Encyclopedia, last modified Jul 12, 2022. https://www.georgiaencyclopedia.org/articles/counties-cities-neighborhoods/pelham/NGE

Lstiburek, Joseph, Building Science Corporation, Building Sciences Corporation, *BSD-146: EIFS- Problems and Solutions* (July 10, 2007) https://buildingscience.com/documents/digests/bsd-146-eifs-problems-and-solutions

MacDonald, Marylee "Repairing Historic Flat Plaster Walls and Ceilings, Preservation Brief 21, National Park Service, US Department of the Interior. October 1989.

"*The Muscogee Creek 1600-1840,"* National Park Service, *https://www.nps.gov/liri/learn/historyculture/the-muscogee-creek-1600-1840.htm#:~:text=The%20English%20called%20the%20Muscogee,the%20Chattahoochee%20and%20Flint%20rivers).*

Stavetieg, Karen. "Historic Decorative Metal Ceilings and Walls: Use, Repair, and Replacement." Preservation Brief 49, National Park Service, US Department of the Interior. April 2017.

Structural Rigidity in A Historic Brick Wall, Infinity Design Solutions. https://www.ids-dmv.com/masonry/structural-rigidity-in-a-historic-brick-wall

"TW Smith – A Georgia Architect." Historic Columbus. http://www.waverlyterrace.org/images/PanelDTWSmith.PDF

Appendix

EXTERIOR WALL CONDITIONS: NORTH ELEVATION

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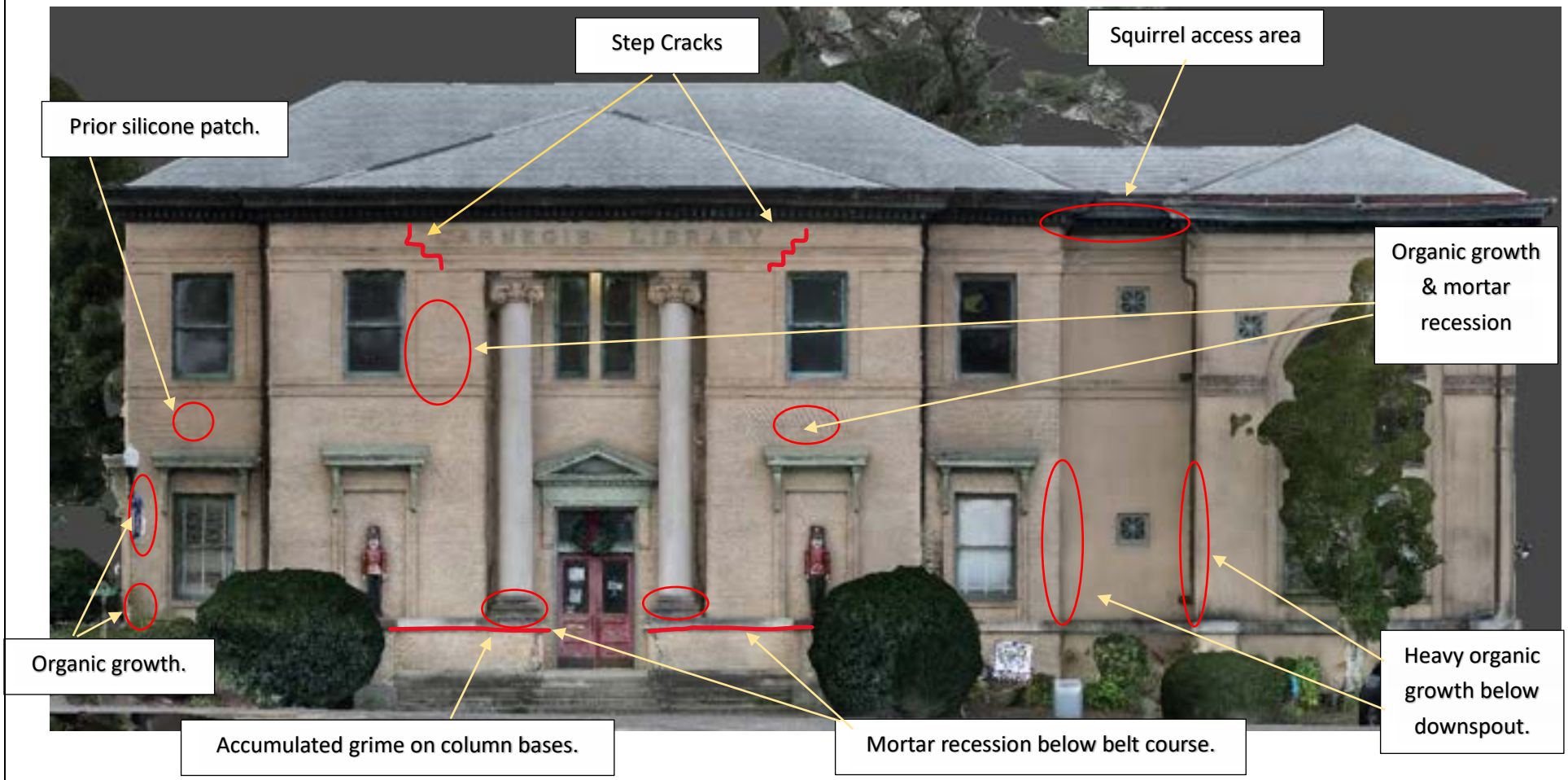


Image of exterior elevation is from a 3D model of the building. Some dimensional and surface finish distortion is present.

EXTERIOR WALL CONDITIONS: EAST ELEVATION

Image of exterior elevation is from a 3D model of the building. Some dimensional and surface finish distortion is present.

EXTERIOR WALL CONDITIONS: SOUTH ELEVATION

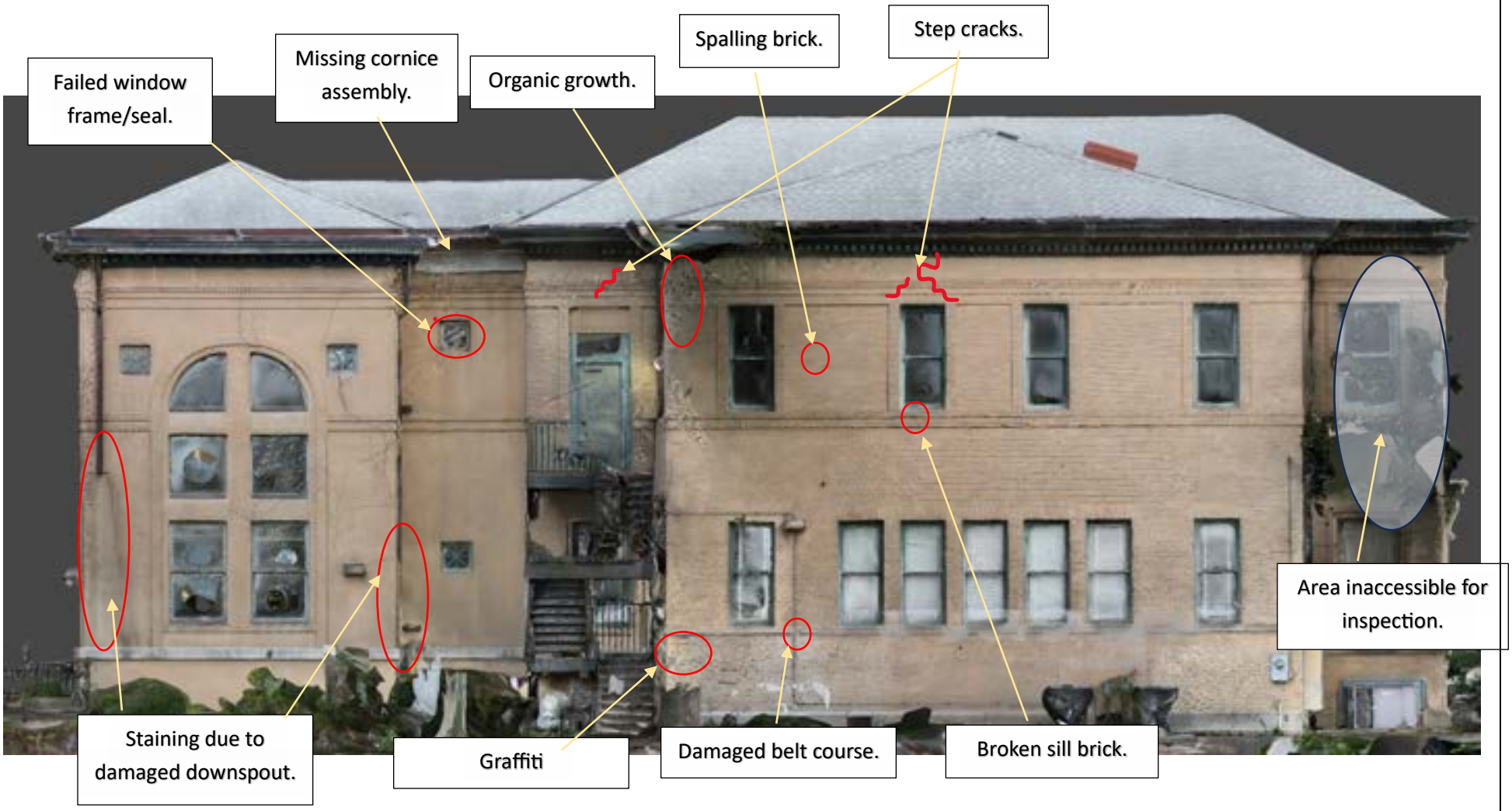


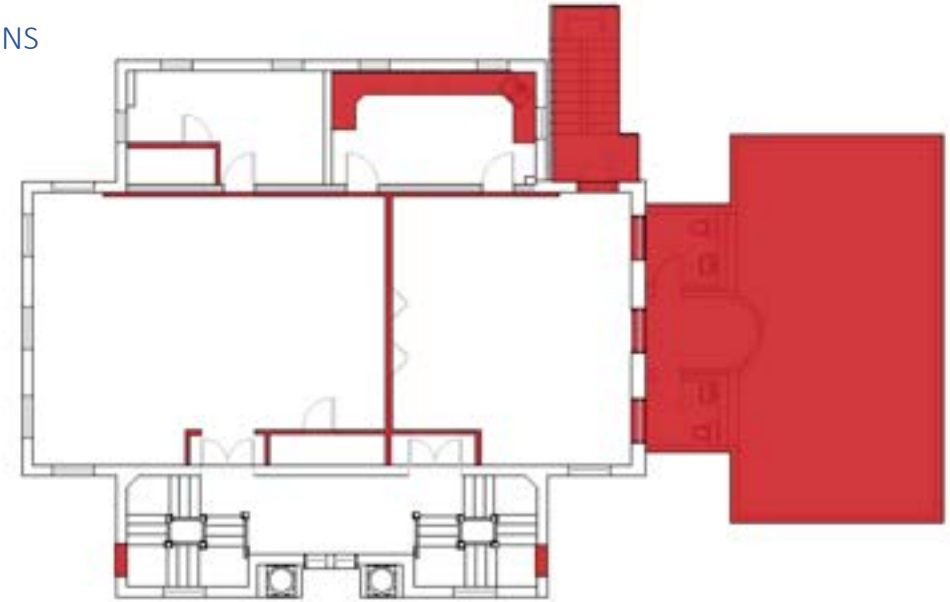
Image of exterior elevation is from a 3D model of the building. Some dimensional and surface finish distortion is present.

EXTERIOR WALL CONDITIONS: WEST ELEVATION

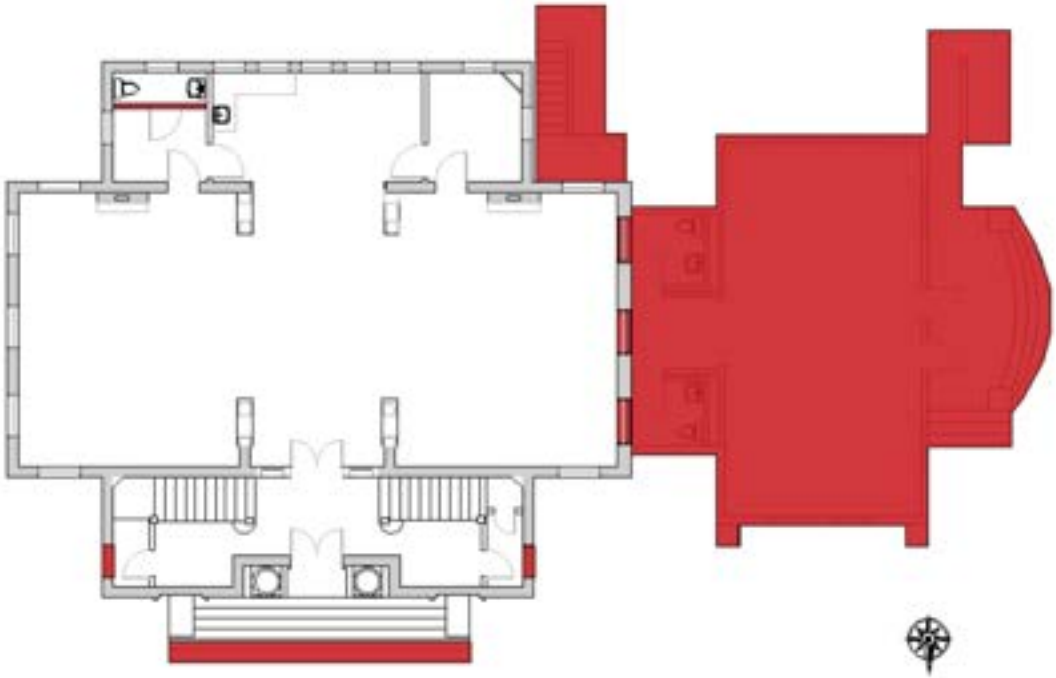
Image of exterior elevation is from a 3D model of the building. Some dimensional and surface finish distortion is present.

TECHNICAL DRAWINGS – KNOWN MODIFICATIONS

Second Floor Plan



First Floor Plan



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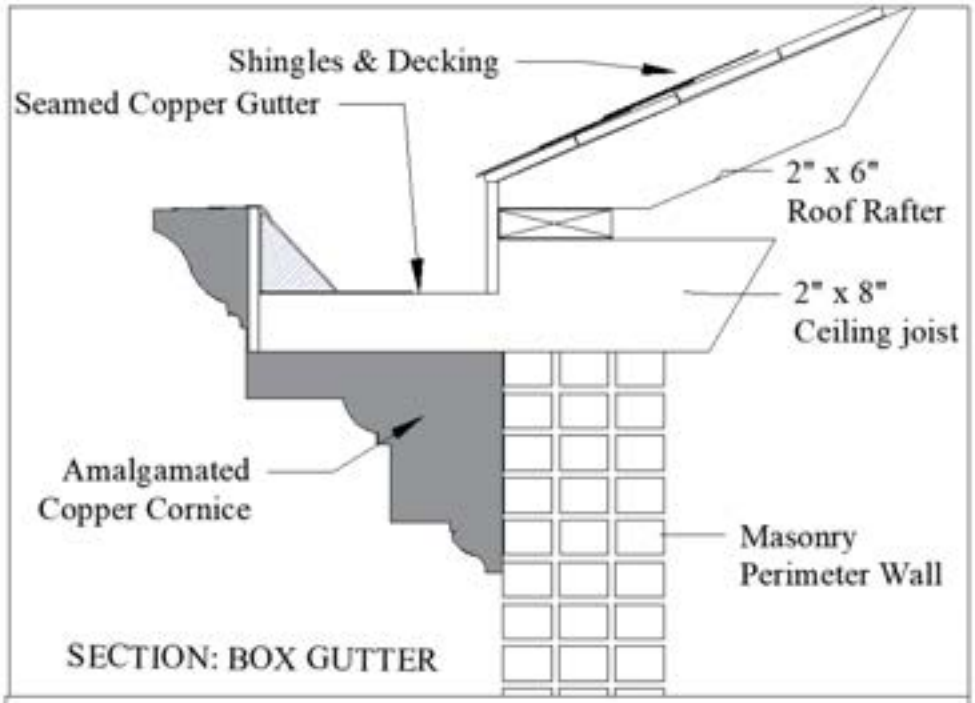
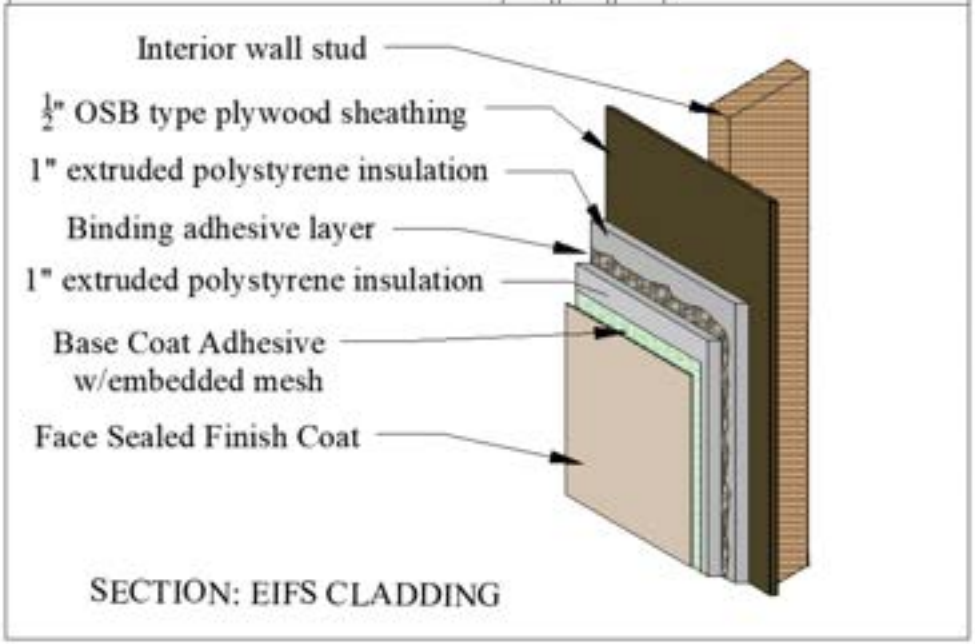
KNOWN MODIFICATIONS
NOT TO SCALE

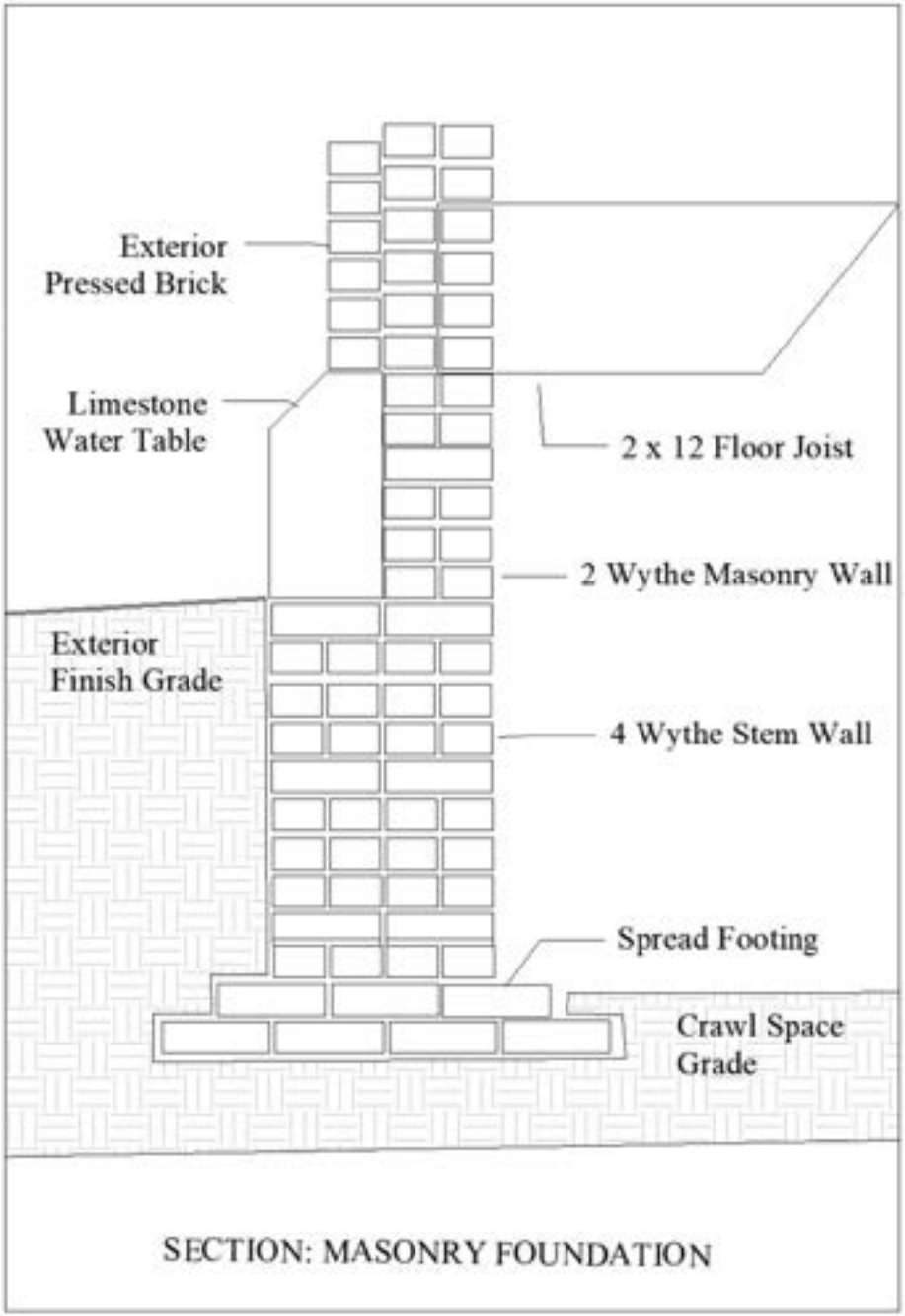
TECHNICAL DRAWINGS – SECTIONS



SECTION: BOX GUTTER



SECTION: EIFS CLADDING



SECTION: MASONRY FOUNDATION

WINDOW SURVEY

Pelham Carnegie Library
Window Survey Date: Dec.23/Jan.24
Inspectors: Eric Menninger/Sarah Borcherding

Window Type Summary

Number of windows in building	71
Number of historic windows	36
Number of non-historic windows	35
Number of double hung	38
Number of casement	33

Window Condition Summary	# of Units	%	
Score between 1 - 1.5 (structurally sound)	21	29.6%	Units require only standard restorative maintenance (scraping, glazing, painting)
Score between 1.5 - 2 (material decay or damage noted)	21	29.6%	Units require standard restorative maintenance PLUS some material consolidation (i.e. epoxy) for some elements
Score between 2 - 3 (significant material decay/damage noted)	22	31.0%	Units require maintenance, epoxy AND new millwork
Scoring between 3 - 4 (multiple window elements failing)	7	9.9%	Units require significant reconstruction/replacement

WINDOW NUMBER, TYPE & SCORE										EXTERIOR											INTERIOR				
Unit #	[illegible]	Location	Type	Style	Material	RO	Condition	[illegible]	Notes	Trim	Jamb	Upper Sash	Lower Sash	Up glass	Low glass	glazing	Sill	Hood	Lintel	Glass Glazing	Jamb	Sash	Stool/Apron	[illegible]	Hardware
101	HIS	HS	Case	Single	Wood	36" x 44"	3	3.8	[illegible] jamb rotted, past masonry repointing with silicone, stool rotten, [illegible]		4		2	4		3	2	n/a	jack arch/1	Fixed/1	2	2	3,5	n/a	n/a
102	HIS	HS	DH	1/1	Wood	4' x 6'10"	1	2.1	Hood, R bracket loose, R scroll separating	1	1	1	1	1	4	3	1	2	steel/1	U=glass L=glass/ 2	1	2	1	1	1
103	HIS	HS	DH	1/1	Wood	4' x 6'10"	1	2.0	NO glazing upper sash, Hood, R bracket loose	1	1	1	1	1	1	4	1	2	steel/1	3	1	1	1	1	1
104	HIS	HS	DH	1/1	Wood	4' x 6'10"	1	1.8	Hood, R cap seam sep, L bracket cap past repair (good)	1	1	1	1	4	1	1	2	1	steel/1	U=glass L=glass/ 1	1	1	1	1	1
105	HIS	HS	DH	1/1	Wood	4' x 6'10"	2	2.1		1	1	2	1	4	2	3	1	1	steel/1	U=glass L= glass/1	1	1	1	1	1
106	HIS	HS	DH	1/1	Wood	4' x 6'10"	2	2.1	5.7% moisture	1	1	2	2	1	1	3	2	n/a	steel/1	3	1	1	1	1	1
107	HIS	HS	DH	1/1	Wood	36" x 6'10"	1	1.6	Sill cracked but sound, 8% moisture	1	1	1	1	1	1	2	1	n/a	jack arch/1	2	1	1	1	1	1
108	HIS	HS	DH	1/1	Wood	36" x 6'10"	3	3.0	Lower jamb past repair/epoxy evident, Carpenter bee hole - meeting rail, [illegible]	3	2.8	1	4	1	1	3	3	n/a	jack arch/1	3	1	3	1	1	no
109	HIS	HS	DH	1/1	Wood	36" x 6'10"	2	2.2	Lower [illegible] jamb - parting bead damage, lower sash - decay with [illegible]	1	2	1	2	4	1	2	1	n/a	jack arch/1	U=glass L=glass/2	1	2	1	1	1
110	HIS	HS	DH	1/1	Wood	36" x 6'10"	3	2.2	brick spalling - jack arch, mondor, cracked bell course/sill, lower sash lower rail	1	2	1	4	1	1	2	1	n/a	jack arch/1	1	2	3	1	1	1
111	HIS	HS	DH	1/1	Wood	36" x 6'10"	2	1.7	brick spalling - jack arch, mondor, Right lower jamb soft	1	3	1	1	1	1	2	1	n/a	jack arch/1	1	1	1	1	1	1

WINDOW NUMBER, TYPE & SCORE										EXTERIOR											INTERIOR				
Unit #	Historic/ Non-historic	location	Type	Style	Material	RO	Condition	Condition Score	Notes	Trim	Jamb	Upper Sash	Lower Sash	Up glass	Low glass	glazing	Sill	Hood	Lintel	Glass Glazing	Jamb	Sash	Stool/Apron	Cords/Weights	Hardware
112	HIS	HS	DH	1/1	Wood	36" x 6'10"	2	2.2	cracked bett course/sill; 3 bore holes (bee); replace cord on R	2	2	1	1	4	1	3	1	n/a	jack arch/1	L1/glass L1/glass/1	1	1	1	1	1
113	HIS	HS	DH	1/1	Wood	36" x 6'10"	3	2.3	Parting bead gone (R) and out of track (L); cracked bett course/sill; 2 bore holes (bee)	2	4	1	1	4	1	2	1	n/a	jack arch/1	L1/glass L1/glass/1	1	1	1	1	1
114	HIS	HS	DH	1/1	Wood	36" x 6'10"	1	1.9	rot: bottom left (soft); organic growth on glazing; bett course	2	1	1	1	4	1	2	1	n/a	jack arch/1	L1/glass L1/glass/1	1	1	1	1	1
115	HIS	HS	DH	1/1	Wood	36" x 6'10"	3	2.2	rot; spalling with mortar loss - jack arch; security bars in	1	2	1	3	4	1	2	1	n/a	jack arch/1	L1/glass L1/glass/1	1	1	1	1	1
116	HIS	HS	DH	1/1	Wood	4' x 6'10"	1	2.4	security bars; No cords, pulleys painted over;	1	1	1	4	4	1	2	1	n/a	steel/1	L1/glass L1/glass/1	2	1	1	2	1
117	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.9	Silicone patching, weatherstripping deteriorated;		wood/1	n/a	1		1		2	n/a	ails	Remnal double pane SDL	NA	NA	NA	-	-
118	Non	AD	DH	1/1	Wood/Vinyl	46.5" x 6'9"	3	3.3	Upper sash fit - delaminating glass slowly		2	4	4	4	2	3	2	n/a	-	3/ GLASS AJAR	1	1	1	spring loaded	no lower
118.5	Non	AD	Case	Single	Wood/Vinyl	46.5" x 49"	2	1.7	Copper clad sill		2	n/a	1		1		1	n/a	ails	1	NA	NA	n/a	-	-
119	Non	AD	DH	1/1	Wood/Vinyl	46.5" x 6'9"	2	2.7			2	1	4	1	2	2	2	n/a	"	2	1	3	1	spring loaded	no lower
119.5	Non	AD	Case	Single	Wood/Vinyl	46.5" x 49"	1	1.1	Copper clad sill		1	n/a	1		1		1	n/a	ails	1	NA	NA	n/a	-	-
120	Non	AD	DH	1/1	Wood/Vinyl	46" x 6'9"	3	3.4	GLASS IN DANGER OF FALLING		2	4	1	4	2	4	4	n/a	"	2/GLASS AJAR	1	1	1	spring loaded	1

WINDOW NUMBER, TYPE & SCORE										EXTERIOR											INTERIOR				
Unit #	Historic/ Non-historic	location	Type	Style	Material	RO	Condition	Condition Score	Notes	Trim	Jamb	Upper Sash	Lower Sash	Up glass	Low glass	glazing	Sill	Hood	Lintel	Glass Glazing	Jamb	Sash	Stool/Apron	Cords/Wts/ pkts	Hardware
121	Non	AD	Case	Single	Wood/Vinyl	45.5" x 44"	1	1.7	Copper-clad sill		2	n/a	1		1		1	n/a	ells	1	NA	NA	n/a	-	-
121.5	Non	AD	Case	Single	Wood/Vinyl	45.5" x 49.75	2	2.1	EXT: Copper-clad sill, past silicone patching; 3 bore holes upper frame		2	n/a	2		1		3	n/a	ells	1	1	1	1	-	-
122	Non	AD	Case	Single	Wood/Vinyl	45.5" x 44"	2	2.1	Copper-clad sill		2	n/a	1		2		1	n/a	ells	cloudy/1	NA	NA	NA	-	-
122.5	Non	AD	Case	Single	Wood/Vinyl	45.5" x 49.75	1	1.4	Copper-clad sill, 2 bore holes upper frame; INT: Bottom R casing warped and [illegible]		1	n/a	1		1		0	n/a	ells	1	1	1	1	-	-
123	Non	AD	DH	1/1	Wood/Vinyl	45" x 5'0"	1	1.7	Glazing strip decay, lower sash, sill bare with checking		1	1	1	1	1	2	2	n/a	"	1	1	1	1	spring loaded	?
124	Non	AD	DH	1/1	Wood/Vinyl	45" x 5'0"	3/4	2.8	EXT: Upper sash missing meeting rail, repaired with wood [illegible]		2	4	4	3	1	2	1	n/a	"	SKYLARS arterial repairs	1	1	1	spring loaded	?
124.5	Non	AD	Case	Single	Wood/Vinyl	45.5" x 49"	NA	1.1	Copper-clad sill						1				ells		NA	NA	NA	-	-
125	Non	AD	DH	1/1	Wood/Vinyl	45" x 5'0"	3/4	1.1	Sash bowing; L frame extensive decay (gone); R springy		1	1	1		1		1	n/a	"	1	1	1	1	spring	?
125.5	Non	AD	Case	Single	Wood/Vinyl	45.5" x 49"	NA	2.8	Copper-clad sill		2	2	2		1				ells		NA	NA	NA	-	-
126	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1	Sill bare with checking		1	n/a	1		1		1	n/a	ells	SDL	1	1	1	-	-
127	HIS	HS	DH	1/1	Wood	45" x 5'10"	2	1.8	Cracks caulked in jamb; parting bead warped and out of channel at [illegible]	1	2	1	1	4	1	1	1	1	steel	U-glass L=glass/1	1	1	1	1	no lower

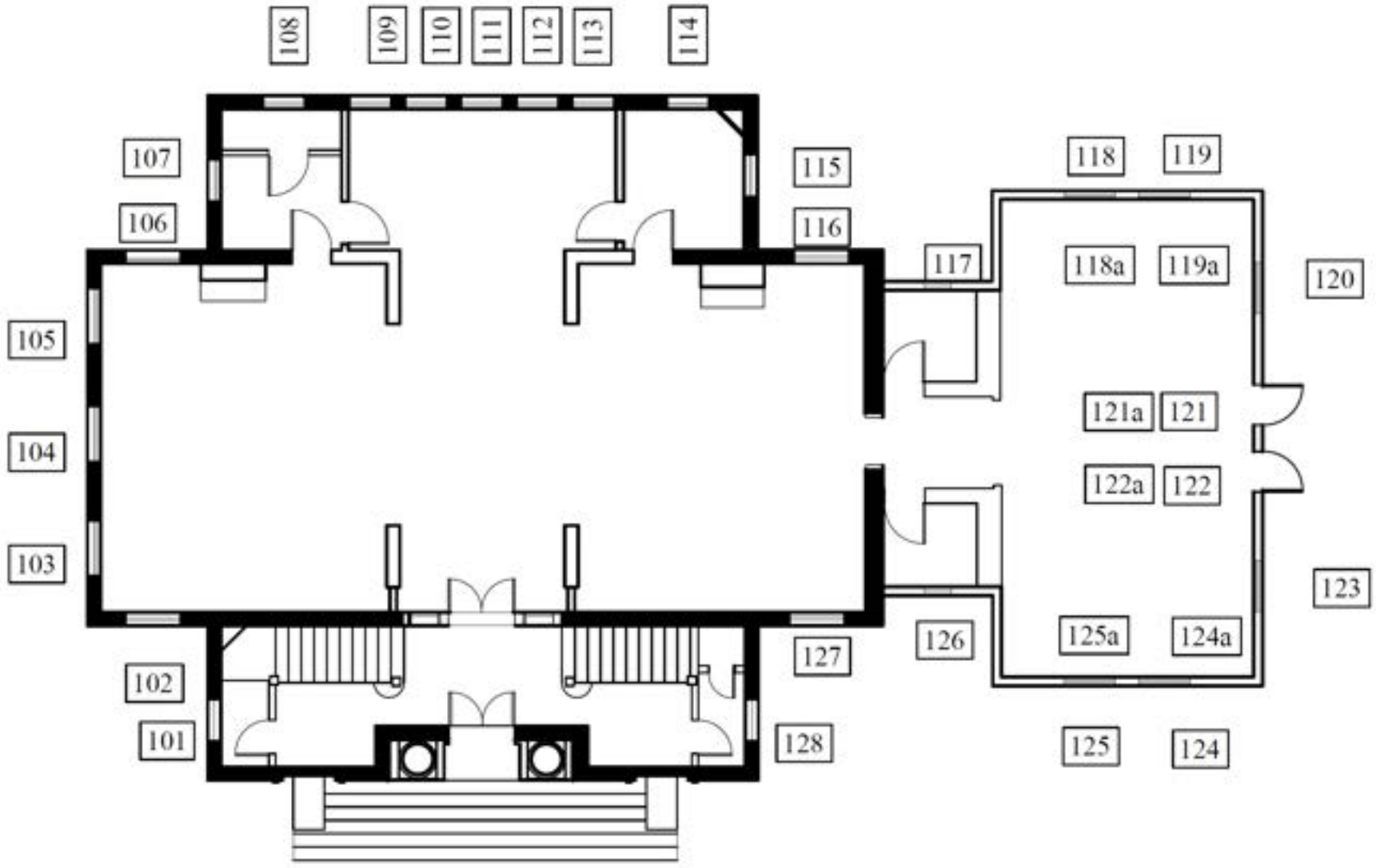
WINDOW NUMBER, TYPE & SCORE										EXTERIOR											INTERIOR				
Unit #	Historic/ Non-historic	location	Type	Style	Material	RO	Condition	Condition Score	Notes	Trim	Jamb	Upper Sash	Lower Sash	Up glass	Low glass	glazing	Sill	Hood	Lintel	Glass Glazing	Jamb	Sash	Bloodstops	Cords/Weights	Hardware
128	HIS	HS	Case	Single	Wood	36" x 44"	3	3.0	Jamb - lower R step is decayed, lintel - spalling on L	1	3	2	1		2		4	n/a	jack arch/1	2	NA	NA	NA	-	-
201	HIS	HS	Case	Single	Wood	36" x 44"	2	2.1	glass cracked - upper left	1	1	n/a	2	4	1	4	NA	-		Plas/4	2	2	3	-	-
202	HIS	HS	DH	1/1	Wood	4' x 6'10"	2	1.5		1	1	1	1		1		1	-		1	1	1	2	-	no lower
203	HIS	HS	DH	1/1	Wood	4' x 6'10"	1	1.5	INT. lower sash, 2 nail holes	1	1	1	1		1		2	-		1	1	1	1	1	no lower
204	HIS	HS	DH	1/1	Wood	4' x 6'10"	1=glass	1.9	may be historic glass in both sashes, crack lower pane L corner	1	1	1	2	1	1	4	1	-		u=Glass l=Glass/4	1	1	1	1	no lower
205	HIS	HS	DH	1/1	Wood	4' x 6'10"	2	1.5		1	2	1	1		1		1	-		1	1	1	1	1	no lower
206	HIS	HS	DH	1/1	Wood	4' x 6'10"	3	2.8	LW SRD split, INT. non-historic sash, upper R parting bead damage and broken	1	1	3	1	1	4	3	1	-	2	U=glass L=glass/1	2	3	2	1	no lower
207	HIS	HS	DH	1/1	Wood	36" x 6'10"	2	1.8	EXT. meeting rail decay	1	1	2	1		1		NA	-		1	1	2	2	1	no lower
208	HIS	HS	DH	1/1	Wood	36" x 6'10"	3 = glass	2.7	"EXT. HEAVY insect damage on sill INT.lower rails of both sashes - decay. Cord	1	1	1	1	1	1	4	4	-		U=glass L=glass/4	1	3	2	3	
209	HIS	HS	DH	1/1	Wood	36" x 6'10"	2	2.3	Sill deterioration with previous patching	1	1	1	1	3	3	4	2	-		GLASS LOCKS/2	1	1	1	1	none
210	HIS	HS	DH	1/1	Wood	36" x 6'10"	3	2.9	"EXT. Sill chipped with mortar loss with patch. INT. lower rails of both sashes	1	1	2	2	3	3	4	3	-	separated	GLASS LOCKS/3	1	3	1	1	

WINDOW NUMBER, TYPE & SCORE										EXTERIOR											INTERIOR				
Unit #	Historic/ Non-historic	Location	Type	Style	Material	SD	Condition	Condition Score	Notes	Trim	Jamb	Upper Sash	Lower Sash	top glass	Low glass	glazing	Sill	Hood	Lintel	Glass Glazing	Jamb	Sash	Stool & pan n	Cords/Wei ghts	Hardware
211	HIS	HS	DH	1/1	Wood	36" x 6'10"	1 + glass	2.0	Operable, historic glass	1	1	1	1	4	1	4	1	-	separated	Glass cracked/4	1	1	1	1	1
212	HIS	HS	DH	1/1	Wood	36" x 6'10"	2	1.7		1	1	2	2		1		1	-	separated	1	1	1	1	1	
213	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	4	3.2	Fail. thT jamb bowing	3	3	-	2		1		4	0	ehs	1	3	3.5	casing intact	-	-
214	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1	214 - 227 Visual Inspection Only	1	1	-	1		1			-	ehs	1	1	1	"	-	-
215	Non	AD	Case	1/4 round	Wood/Vinyl	~40" wide	1	1.1	copper clad sill	1	1	-	1		1		1	-	ehs	1	1	1	"	-	-
216	Non	AD	Case	1/4 round	Wood/Vinyl	~40" wide	1	1.1		1	1	-	1		1		1	-	ehs	1	1	1	"	-	-
217	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1	Muntin decay	1	1	-	1		1		1	-	ehs	1	1	1	"	-	-
218	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1	EXT. trim separating from top	1	1	-	1		1		1	-	ehs	1	1	1	"	-	-
219	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1		1	1	-	1		1		1	-	ehs	1	1	1	"	-	-
220	Non	AD	Case	1/4 round	Wood/Vinyl	~40" wide	2	1.8	glazing/wea therstrippin g deterioratin g	1	1	-	1		2		1	-	ehs	2	1	1	"	-	-
221	Non	AD	Case	1/4 round	Wood/Vinyl	~40" wide	2	1.8		1	1	-	1		2		1	-	ehs	2	1	1	"	-	-

WINDOW NUMBER, TYPE & SIZE										EXTERIOR											INTERIOR				
Unit #	Historic/ Non-historic	Location	Type	Style	Material	SO	Condition	Condition Score	Notes	Trim	Jamb	Upper Sash	Lower Sash	Up glass	Low glass	glazing	Sill	Hood	Lintel	Glass Glazing	Jamb	Sash	Moulding pro n	Cords/Wei ghts	Hardware
222	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	3	1.9	Frame with advanced rot bottom left	4	1	-	1		1		1	-	efs	1	1	1	*	-	-
223	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1	Trim - left side separated	1	1	-	1		1		1	-	efs	1	1	1	*	-	-
224	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1	Weatherstri pping needed	1	1	-	1		1		1	-	efs	1	1	1	*	-	-
225	Non	AD	Case	1/4 round	Wood/Vinyl	~45" wide	1	1.1	Trim - left side separated	1	1	-	1		1		1	-	efs	1	1	1	*	-	-
226	Non	AD	Case	1/4 round	Wood/Vinyl	~45" wide	1	1.1	Upper rail, sill, glazing and weatherstrip ping needed; INT. casing separation	1	1	-	1		1		1	-	efs	1	1	1	1	-	-
227	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1	Weatherstri pping needed	1	1	-	1		1		1	-	efs	1	1	1	casing intact	-	-
228	Non	AD	Case	Single	Wood/Vinyl	2' x 2'	1	1.1		1	1	-	1		1		1	-	efs	1	1	1	*	-	-
229	HIS	HS	DH	1/1	Wood	40" x 6'10"	1	2.0	Lower sash bottom rail damp with loose glass	1	1	1	1	3	3	2	1	-	steel/1	Glass loose/2	1	1	1	1	
230	HIS	HS	Case	Single	Wood	36" x 44"	3	3.1	Sill completely rotted, Stool and apron with decay. Historic frame, non-historic	1	4	-	2		1		4	-	1	1	4	1	3	-	-
231	HIS	HS	DH	1/1	Wood	4' x 6'10"	2	2.1	Stool decay, apron intact	1	1	2	1	4	1		1	-	1	Glass cracked/4	1	2	2	1	
232	HIS	HS	DH	1/1	Wood	24" x 6'5"	3	1.8	Needs parting bead repair, historic glass lower sash, lintel rusty	1	1	1	1	1	1	1	1	-	1	1	3	1	1	1	

WINDOW NUMBER, TYPE & SCORE										EXTERIOR											INTERIOR				
Unit #	Historic/ Non-historic	location	Type	Style	Material	SO	Condition	Condition Score	Notes	Trim	Jamb	Upper Sash	Lower Sash	Lip glass	Low glass	glazing	Sill	Hood	Liner	Glass Glazing	Jamb	Sash	Blind/Layers	Cords/ Weights	Hardware
233	HIS	HS	DH	1/1	Wood	24" x 6'5"	1	1.1	No cord - right pulley	1	1	1	1		1		1	-	1	1	1	1	1	1	
234	HIS	HS	DH	1/1	Wood	4' x 6'10"	3	2.2	Holdin above jamb rotten, lower sash decay, replace cord on right side	3	1	1	3		1		1	-	1	1	1	3	2	1	no latch
235	Non	AD	Case	Single	Wood	23 1/2" x 73"	1	1.1	Interior balcony	INT	BALCONY										1	1	-	-	-
236	Non	AD	Case	Single	Wood	23 1/2" x 73"	1	1.1	Interior balcony	INT	BALCONY										1	1	-	-	-
237	Non	AD	Case	Single	Wood	23 1/2" x 73"	1	1.1	Interior balcony	INT	BALCONY										1	1	-	-	-

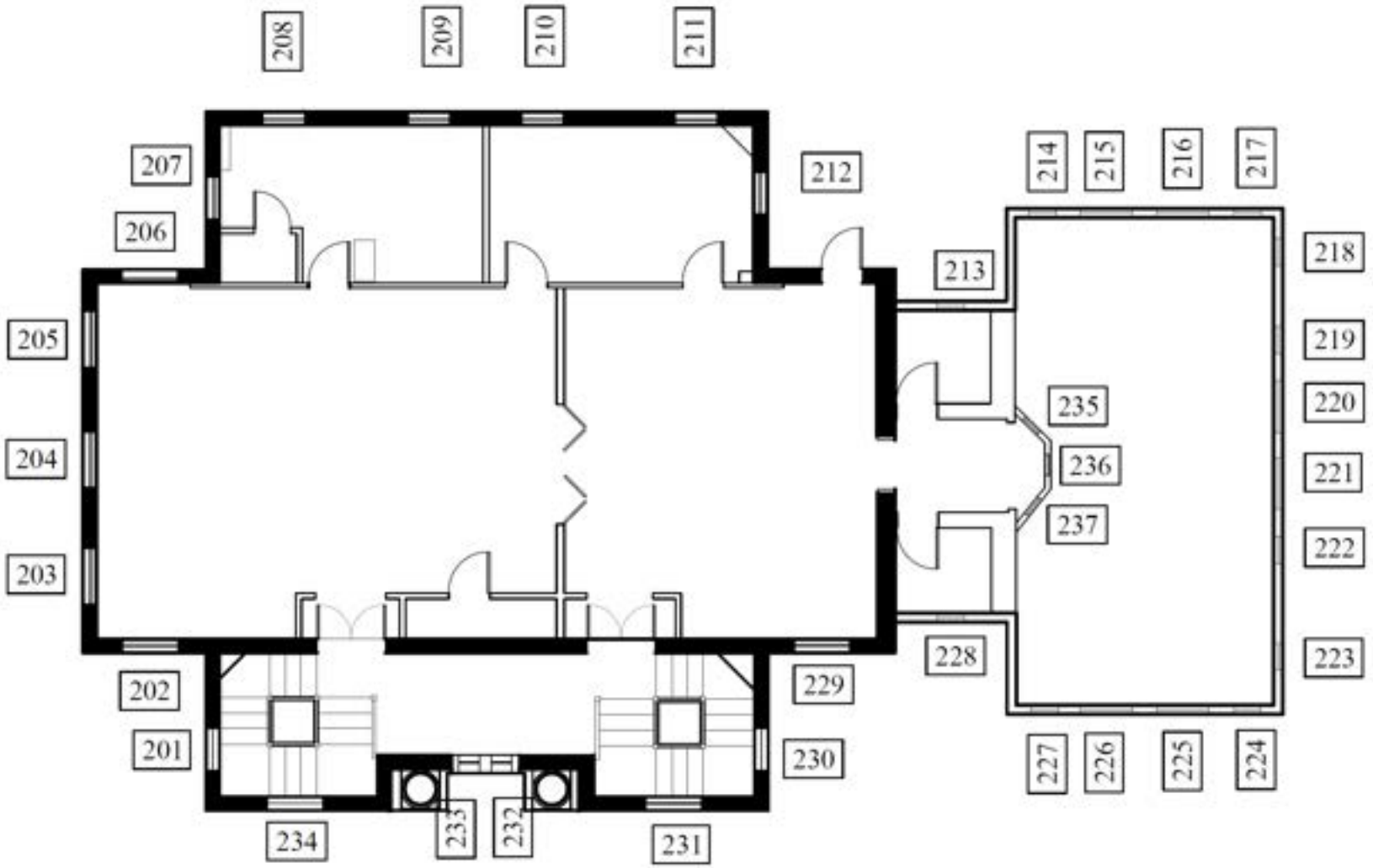
FIRST FLOOR WINDOW KEY



PELHAM CARNEGIE LIBRARY WINDOW SURVEY KEY

FIRST FLOOR

SECOND FLOOR WINDOW KEY



PELHAM CARNEGIE LIBRARY WINDOW SURVEY KEY

SECOND FLOOR

DOOR SURVEY

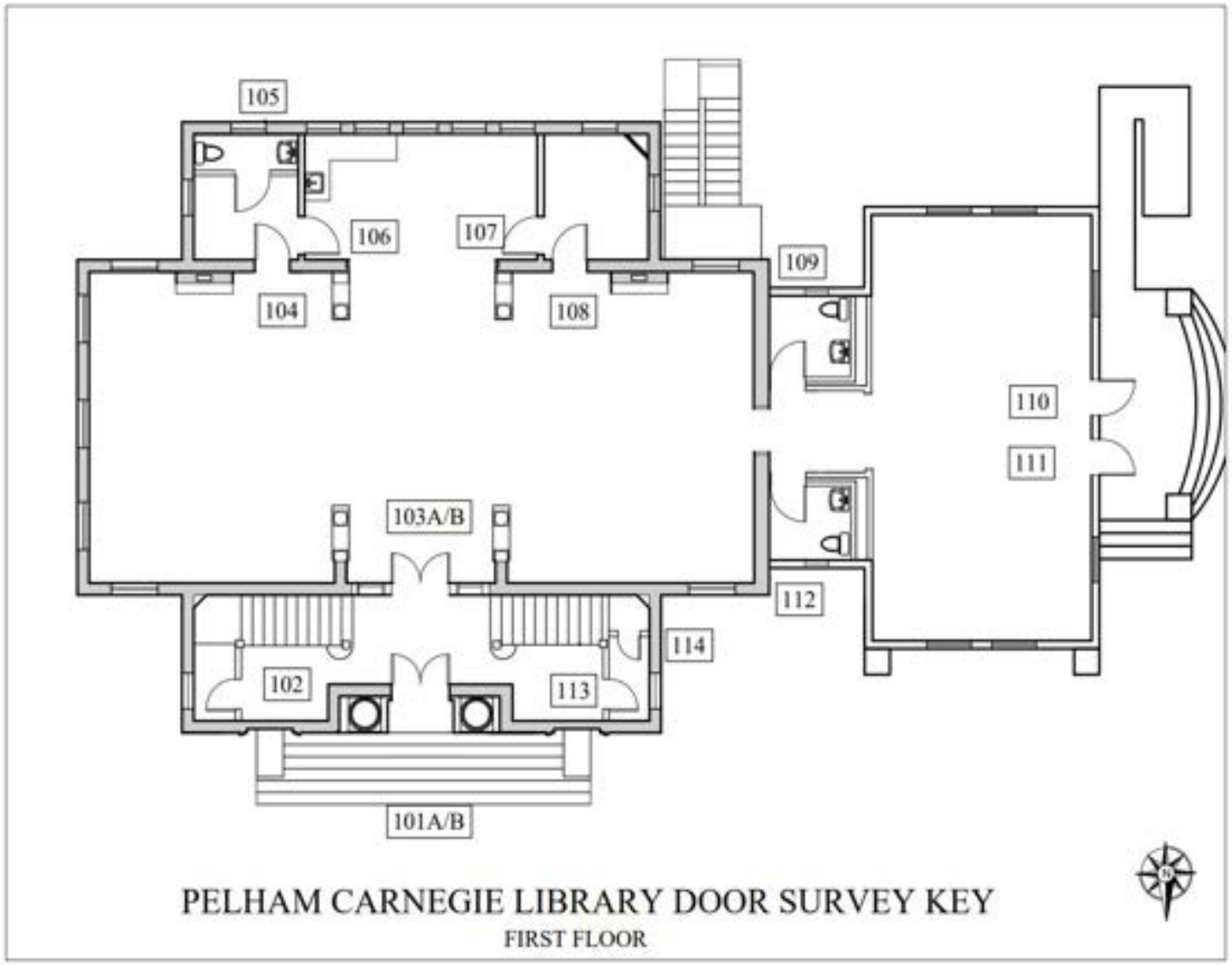
PELHAM CARNEGIE LIBRARY: DOOR SURVEY	Location	Historic/Non-Historic	Materials	Configuration	Swing	Side of hinging + # of hinges	Interior Opening dimension (W x H)	Door thickness	hardware	Transom	Transom dimension	Fixed or Operable	Notes;
D101A	North elevation, main entrance	historic opening/door non-historic	wood	1/2 glass, 2 recessed panels	inswing	left, 3	60" x 90"	2 1/4"	hinges - historic - lockset modern	yes	21 x 41 1/2"	fix	door jam and frame historic but doors are modern
D101B	North elevation, main entrance	historic opening/door non-historic	wood	1/2 glass, 2 recessed panels	inswing	right, 3	60" x 90"	2 1/4"	hinges - historic - lockset modern	yes		fix	
D102	1st fl Foyer, east side	Historic	wood	5 recessed panels	inswing	left, 2	30" x 85"	1 7/8"	all historic	no			
D103A	Inner portal, 1st floor	Historic	wood	2/3 glass, 1 recessed panel	inswing	left, 3	60 x 86	1 3/4"	all historic	yes	48" x 20"	fix	doors are centerpiece of large, detailed entryway
D103B	Inner portal, 1st floor	Historic	wood	2/3 glass, 1 recessed panel	inswing	right, 3	60 x 86	1 3/4"	all historic	yes		fix	
D104	Main reading room left	Historic	wood	1/3 glass upper, 3 recessed panels	inswing	left, 2	36 1/2" x 84 1/4"	1 3/4"	all historic	yes	26" x 24"	yes	all hardware working, etched glass upper
D105	1st fl Staff bathroom	Non-historic	composite	slab	Outswing	left, 3	36" x 84 1/4"		modern	no			

PELHAM CARNEGIE LIBRARY: DOOR SURVEY	Location	Historic/Non-Historic	Materials	Configuration	Swing	Side of hinging + # of hinges	Interior Opening dimension (W x H)	Door thickness	Hardware	Transom	Transom dimension	Fixed or Operable	Notes;
D106	Behind Librarian desk left	Historic	wood	5 panels	Outswing	left, 2	36" x 84"	1 3/4"	all historic	no			
D107	Behind Librarian desk right	Historic	wood	5 panels	Outswing	right, 2	36" x 84"	1 3/4"	all historic	no			
D108	Main reading room right	Historic	wood	1/3 glass upper, 3 recessed panels	inswing	right, 2	36 1/2" x 84 1/2"	1 3/4"	all historic	yes	26" x 24"	yes	all hardware working, etched glass upper
D109	1st fl Public Lav South	Non-historic	wood	5 raised panels	inswing	left,	36" x 85"	1 3/4"	modern	no			
D110	1st fl Addition north	Non-historic	Wood composite	2/3 glass upper/1 panel	Outswing	left, 3	36 1/4" x 82"		modern	no			
D111	1st fl Addition north	Non-historic	Wood composite	2/3 glass upper/1 panel	Outswing	right, 3	36 1/4" x 82"		modern	no			
D112	1st fl Public Lav North	Non-historic	wood	5 raised panels	inswing	right	36" x 85"	1 3/4"	modern	no			
D113	1st fl Foyer, west side	Historic	wood	5 recessed panels	inswing	right, 2	30" x 84 1/2"	1 7/8"	all historic	no			

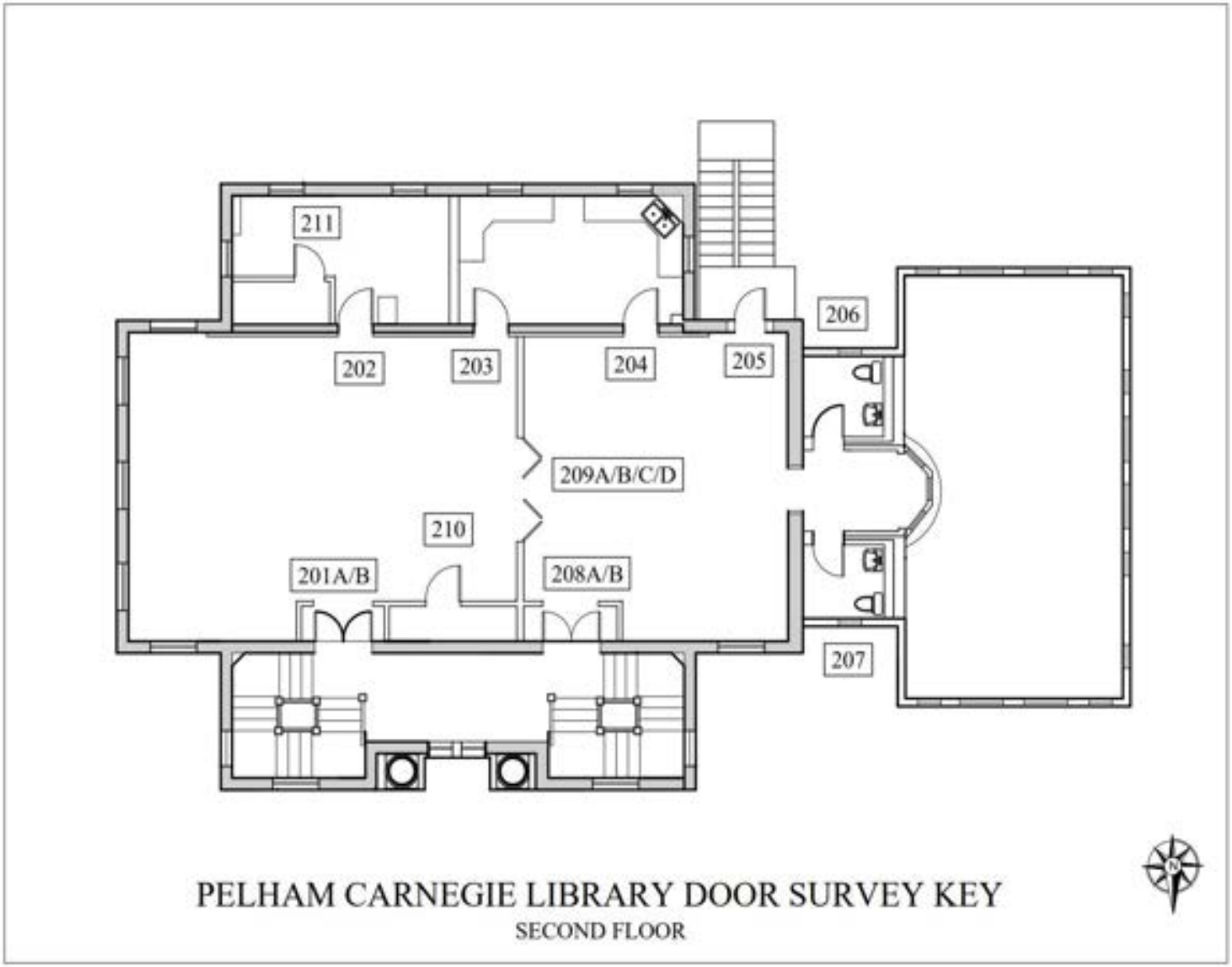
PELHAM CARNEGIE LIBRARY: DOOR SURVEY	Location	Historic/Non-Historic	Materials	Configuration	Swing	Side of hinging + # of hinges	Interior Opening dimension (W x H)	Door thickness	Hardware	Transom	Transom dimension	Fixed or Operable	Notes:
D114	1st fl Foyer, west side, under stairs	Historic	wood	1/2 glss, 2 recessed panels	outswing	left, 2	23" x 72 1/2"	1 3/8"	all historic	no			Cutest door in the building
D201	2nd fl East Foyer Double	Historic	wood	5 recessed panels	inswing	left/right, 2 per	60" x 84 1/2"	1 3/4"	all historic	yes	20" x 60"	fixed	2 light divided transom, side by side
D202	2nd fl Utility	Historic	wood	5 recessed panels	inswing	right, 2	36" x 83 1/4"	1 3/4"	historic hinges	yes	21" x 36"	fixed	evidence transom was originally operable
D203	2nd fl Kitchen east	Historic	wood	5 recessed panels	inswing	left, 2	36" x 84"	1 3/4"	historic hinges	yes	21" x 36"	fixed	evidence transom was originally operable
D204	2nd fl Kitchen west	Historic	wood	5 recessed panels	inswing	right, 2	36 x 83 1/2"	1 3/4"	historic hinges	yes	21 x 36"	fixed	evidence transom was originally operable
D205	2nd fl Fire Escape	Non-historic	metal	slab	Outswing	right, 3	32" x 84"	1 3/4"	modern	yes	19" x 32"	fixed	
D206	2nd fl Restrm south	Non-historic	wood	slab	inswing	left, 3	32" x 84 1/2"	1 3/4"	modern	no			
D207	2nd fl Restrm north	Non-historic	wood	slab	inswing	right, 3	32" x 84 1/2"	1 3/4"	modern	no			

PELHAM CARNEGIE LIBRARY: DOOR SURVEY	Location	Historic/Non-Historic	Materials	Configuration	Swing	Side of hinging + # of hinges	Interior Opening dimension (W x H)	Door thickness	Hardware	Transom	Transom dimension	Fixed or Operable	Notes:
D208	2nd fl West Foyer Double	Historic	wood	5 recessed panels	inswing	left/right, 2 per	60" x 84 1/2"	1 3/4"	historic (peep h	yes	20" x 60"	fixed	2 light divided transom, side by side
D209	2nd fl Partition (double bi-fold)	Non-historic	wood	7 recessed panels p/door	bi-fold	2 @ hinge, 2 @ wall	8'10" x 8' 11"	1 5/8"	modern	no			4 door slabs 26" x 8' 10 1/2"
D210	2nd fl closet door	Non-historic	wood	slab	outswing	left, 3	36" x 83 1/2"	1 3/4"	modern	yes	20" x 36"	fixed	

FIRST FLOOR DOOR KEY

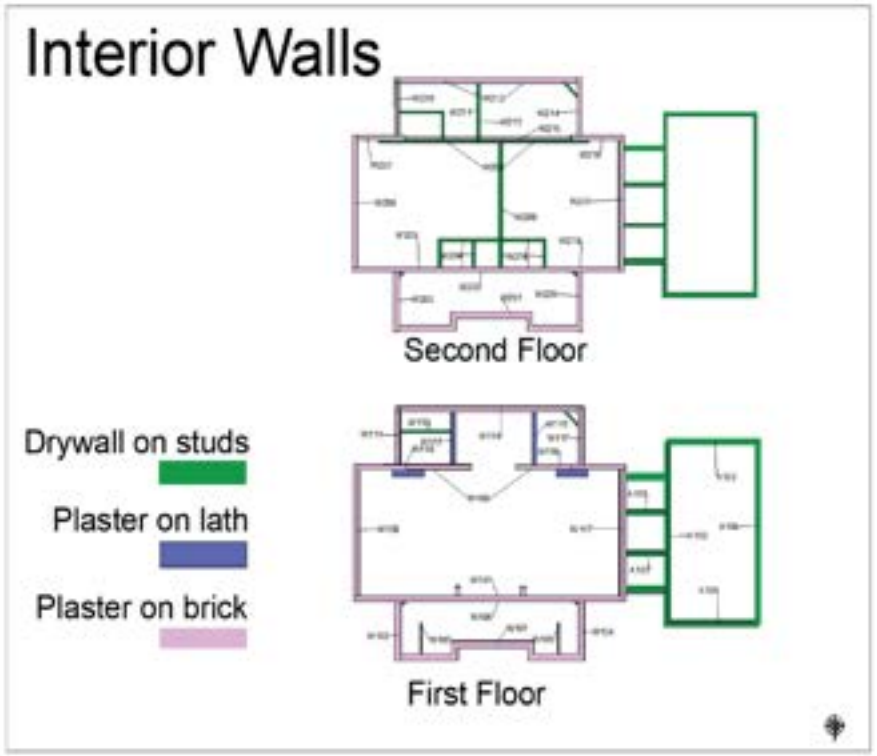


SECOND FLOOR DOOR KEY



WALL SURVEY **SUMMARY**

	Totals	% o fotal
Total Walls Sq. Ft.	**12,796**	
All 1st fl. Walls	**3,187**	**25%**
All 2nd fl. Walls	**6,382**	**49.9%**
Addition Walls	**3,228**	**25.2%**
Total Plaster Sq. Ft.	**6,089**	**47.6%**
Sq. Ft needing plaster repair	**1,476**	**12%**



Larger Wall key provided at end of survey

Confirm numbers prior to costing

Pelham Carnegie Library | Wall Survey | confirm numbers prior to costing

LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
1st	W101	North Wall	masonry	plaster	50.1	12	104	497.2	22%	109	
1st	W102	East foyer	masonry	plaster	10.5	8	6	78	80%	62	
1st	W103	East foyer bathroom wall	lathe	plaster	6.75	7.25	21	28	5%	1	
1st	W104	West foyer	masonry	plaster	10.5	8	6	78	40%	31	
1st	W105	West foyer bathroom wall	lathe	plaster	6.75	7.25	21	28	0%	0	
1st	W106	North demising wall	masonry	plaster	38.25	12	120	339	10%	34	

LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
1st	W107	Interior North demising wall	masonry	plaster	63	9	144.125	423	10%	42	
1st	W108	East Wall	masonry	plaster	25.3	9	84	144	3%	4	
1st	W109	Interior South demising wall	masonry	plaster	61	9	146	403	10%	40	*fireplace enclosure plaster on lathe
1st	W110	Storage Room partition wall	masonry	plaster	10.7	12	30	98	0%	0	
1st	W111	Storage Room east wall	masonry	drywall	10.3	12	21	103	0%	0	
1st	W112	Storage Room west wall	lathe	plaster	10.3	12	21	103	0%	0	* some portion plaster

LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
1st	W113	Restroom partition wall	studs	drywall	10.7	12	21	107	0%	0	
1st	W114	South Wall	masonry	plaster	38.25	9	147	197	8%	16	
1st	W115	Office partition wall	lathe	plaster	10.3	12	21	103	0%	0	
1st	W116	Office east wall	lathe	plaster	10.3	12	21	103	0%	0	
1st	W117	Office west wall	masonry	plaster	10.3	12	21	103	15%	15	
1st	W118	West wall	masonry	plaster	25.5	12	52.3	254	20%	51	* some drywall over old windows

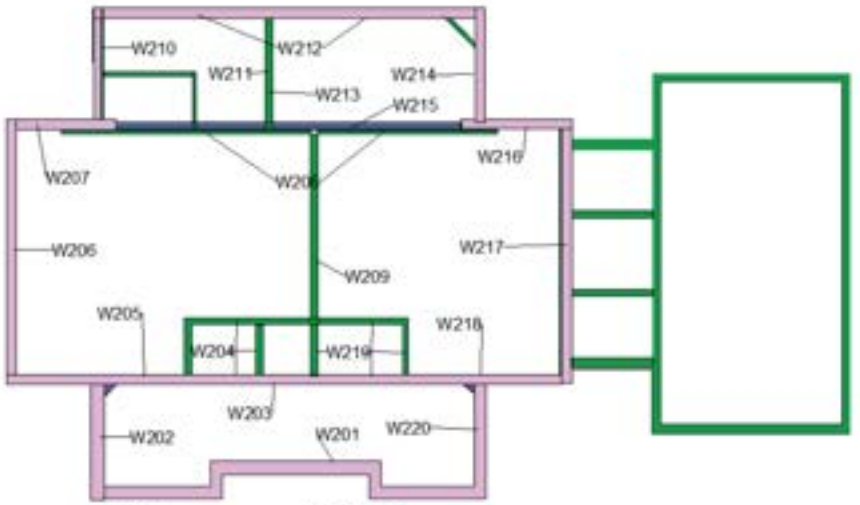
LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
2nd	W201	North wall	masonry	plaster	50	14.9	154	592	30%	178	
2nd	W202	East Stairwell	masonry	plaster	10.5	18	28	161	25%	40	
2nd	W203	North demising wall	masonry	plaster	38.25	14.9	100	471	35%	165	
2nd	W204	East alcove entry	nasonry/stud	drywall	45	14.9	74	597	0%	0	* some portion plaster
2nd	W205	Interior North demising wall	masonry	plaster	18.5	14.9	28	248	25%	62	
2nd	W206	East Wall	masonry	plaster	25.5	14.9	84	296	18%	53	

LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
2nd	W207	South East Ext. wall	masonry	plaster	5	14.9	28	47	30%	14	
2nd	W208	South Partition wall	studs	drywall	45	14.9	90	581	0%	0	
2nd	W209	Main Room Parition Wall (both sides)	studs	drywall	50	14.9	64	682	0%	0	
2nd	W210	Utility Room: east wall	masonry	drywall	10.5	14.9	28	129	0%	0	
2nd	W211	Utility Room: west side partition	historic studs	drywall	10.5	14.9	0	157	0%	0	
2nd	W212	South Wall	masonry	plaster	38.25	14.9	112	459	35%	161	* heavy kitchen damage

LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
2nd	W213	Kitchen: East side partition	historic studs	drywall	10.5	14.9	0	157	0%	0	
2nd	W214	Kitchen: West Exterior wall	masonry	drywall	10.5	14.9	28	129	55%	71	
2nd	W215	Kitchen: demising wall	historic studs	drywall	20	14.9	60	238	0%	0	plaster lath beneath
2nd	W216	South West Ext. Wall	masonry	plaster	5	14.9	40	35	20%	7	
2nd	W217	West Wall	masonry	drywall	25.5	14.9	40	340	2%	7	* plaster coat beneath
2nd	W218	North Wall	masonry	plaster	22	14.9	28	300	1%	3	

LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
`2nd	W219	West Alcove Entry	nasonry/stud	drywall	45	14.9	74	597	0%	0	
`2nd	W220	West Stairwell	masonry	plaster	10.5	18	21	168	40%	67	
Addition	A101	North wall	studs	drywall	28	28.5	73.5	725	5%	36	
Addition	A102	East Wall	studs	drywall	20	28.5	73.5	497	20%	99	
Addition	A103	South Wall	studs	drywall	28	28.5	73.5	725	5%	36	
Addition	A104	West Wall	studs	drywall	20	28.5	100	470	15%	71	

LOCATION	Wall ID	Wall Location	Consctruction	Wall Finish	Width	Height	less fenestration and/or waincotting	Square Footage	% needing repair	Sq. ft needing repair	NOTES
Addition	A105	Bathrooms(BOTH FLOORS)	studs	drywall	896	1	84	812	0%	0	
							TOTALS	12796		1476	

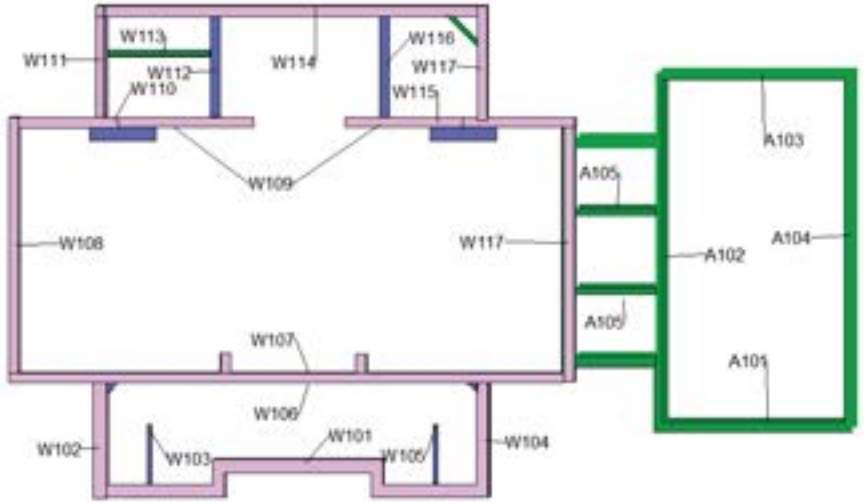


Second Floor

Drywall on studs

Plaster on lath

Plaster on brick



First Floor

end