

CHARNLEY-PERSKY HOUSE

CONSERVATION MANAGEMENT PLAN

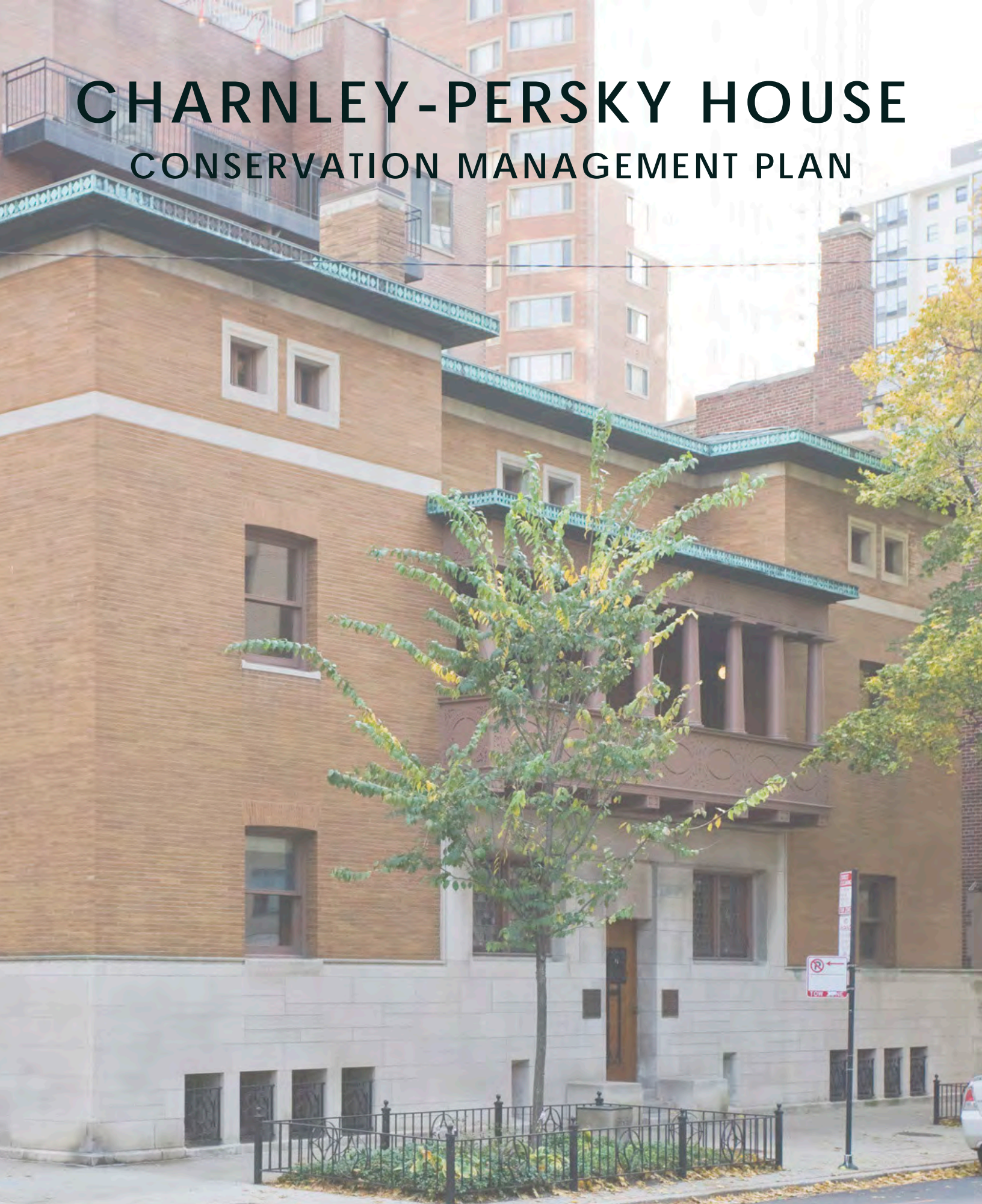


TABLE OF CONTENTS

1. INTRODUCTION	1
2. HISTORY	7
3. BUILDING DESCRIPTION	51
4. SIGNIFICANCE	67
5. CONDITION ASSESSMENT	83
6. PROGRAMMING	219
7. RECOMMENDATIONS & POLICIES	231
8. BIBLIOGRAPHY	261
9. APPENDIX A	267
Photography	
Interior Finishes Report	
Blower Door Inspection Report	
Temperature & Humidity Study Graphs	
10. APPENDIX B	
Drawings	
(Separate bound document)	

This Conservation Management Plan was funded by a generous grant from the Alphawood Foundation.



1

INTRODUCTION

INTRODUCTION

Project Background

The Charnley-Persky House is one of the most significant buildings in the early development of modern residential architecture in America. Designed by renowned late nineteenth century architecture firm, Adler and Sullivan, the house was completed in 1892 for Mr. and Mrs. James Charnley. Although the lack of physical evidence such as architectural drawings makes the authorship of house unclear, it is widely believed that there are design features and elements that can be attributed to both Louis Sullivan and Frank Lloyd Wright. The house, which is located in the Astor Street Historic District, was twice designated a City of Chicago Landmark in 1960 and 1972, was listed on the National Register of Historic Places in 1970, and was designated a National Historic Landmark in 1998.

In 2016, the Society of Architectural Historians (SAH) received a grant from the Alphawood Foundation and selected Harboe Architects and their team of qualified professionals to complete a Conservation Management Plan for the Charnley-Persky House. The Conservation Management Plan will provide SAH with the knowledge and tools to care for the Charnley-Persky House into the foreseeable future.

1-1
West facade
of the Char-
nley-Persky
House, 2016,
Leslie Schwartz.



Project Team

Harboe Architects assembled a team of uniquely qualified preservation professionals to develop the Conservation Management Plan for the Charnley-Persky House. The team included the following individuals:

- ***Harboe Architects***
Gunny Harboe, FAIA, Project Principal
Tim Scovic, AIA, Project Architect
- ***Architectural Consulting Engineers***
Mark Nussbaum, PE, MEP Engineer
- ***Tylk, Gustafson, Reckers, Wilson & Andrews (TGRWA)***
Michael Justice, SE, Structural Engineer
- ***Building Conservation Associates (BCA)***
Dorothy Krotzer, Lead Architectural Conservator
Kerry Lenahan, Architectural Conservator
- ***Leslie Schwartz Photography***
Leslie Schwartz, Photographer
- ***TruePoint Laser Scanning***
Jonathan Rohrs, Laser Scanner
- ***Berglund Construction***
Jack Tribbia, Cost Estimator

Purpose of the Conservation Management Plan

According to the Heritage Lottery Fund, a United Kingdom based funder of heritage projects, a conservation management plan is a “document which sets out the significance of a heritage asset, and how that significance will be retained in any future use, management, alteration or repair.” Although considered a relatively new type of heritage management document in the United States as of 2016, conservation management plans have proven to be useful planning tools for historic sites in Europe and Australia. Unlike a historic structure report, which is generally completed to guide a restoration project, a conservation management plan provides a long-term plan for the care of a heritage site. It is a working

document that can be updated and revised as the needs of the owner and site change. The primary purpose of a conservation management plan is to fully understand a historic site, why it is significant, its current condition and use, and the client's programmatic needs, and to set out strategies and policies for the future management, maintenance, and use of the site. It is the goal of this project to create a document that will preserve and sustain the Charnley-Persky House for future generations.

Project Objectives

When developing any long term plan for a historic property it is crucial to establish objectives that will guide the project and result in a valuable document for implementing future work. The primary objectives for completing a Conservation Management Plan for the Charnley-Persky House are as follows:

- Identify significant historic elements, features, and finishes that are to be preserved.
- Identify elements, features, and finishes that have been modified since the house was constructed.
- Identify material conditions on both the exterior and interior of the house that require repair or maintenance.
- Establish short term recommendations for necessary repairs and restoration, including a prioritized list of items.
- Establish long term recommendations, schedule, and policies for the care and maintenance of the house.

Methodology

In order to accomplish the task of preparing the Conservation Management Plan for the Charnley-Persky House, initial documentary research was conducted followed by more intensive on-site analysis of the house. The bulk of the research and survey work was for the purpose of establishing architectural and historically significant spaces and features, identifying original building materials as well as later modifications, and documenting existing conditions, which would all inform the recommendations for continued maintenance and any suggested interventions for the house.

Before beginning the on-site investigation, a survey was conducted of scholarly publications and documentary resources available from various sources. Research continued concurrently with on-site investigations throughout the project. A large amount of information was provided to the team by the Society of Architectural Historians. Additional information, such as historic photographs, books on Sullivan and Wright, as well as journal and newspaper articles were gathered from the Chicago Historical Society, Ryerson and Burnham Libraries at the Art Institute of Chicago, the Chicago Public Library, and the Oak Park Public Library. Harboe Architects also conducted interviews with individuals directly involved in past restoration efforts and daily care of the house including John Eifler, John Vinci, Tim Samuelson, Robert Furhoff, William Tyre, and Pauline Saliga.

The bulk of the work consisted of a detailed on-site visual condition assessment of the house. Particular consideration was given to the central stair, building systems, as well as the roof and skylight. The condition assessment also served as the means of documenting the existing conditions of interior spaces, elements and finishes. Based on these findings, a better understanding of the degree of the Charnley-Persky House's historical and physical integrity was established. Understanding the percentage and condition of the extant historical fabric was essential in determining a space's or element's level of significance. These designations, together with the documentation of the existing conditions, were vital in recommending some treatments over others.

Based on both the documentary research as well as an on-sight visual assessment, Harboe Architects recommended strategic policies and short and long-term maintenance and restoration treatment options for the Charnley-Persky House. These policies and recommendations are all in keeping with the *Secretary of Interior Standards for the Treatment of Historic Properties*. In addition, recommendations are included that will improve the use of existing spaces, as well as update the HVAC system in the house.

Perhaps just as important as the recommendations and policies, the Conservation Management Plan also includes a magnitude of estimated cost for the recommended scope of work. It is intended that the magnitude of estimated cost will be based on the recommended work provided to the cost estimator. A suggested phasing schedule to complete the work outlined in this report is also included. The phasing schedule takes into consideration a logical sequence of work that is intended to establish priorities for the Society of Architectural Historians' fundraising efforts.

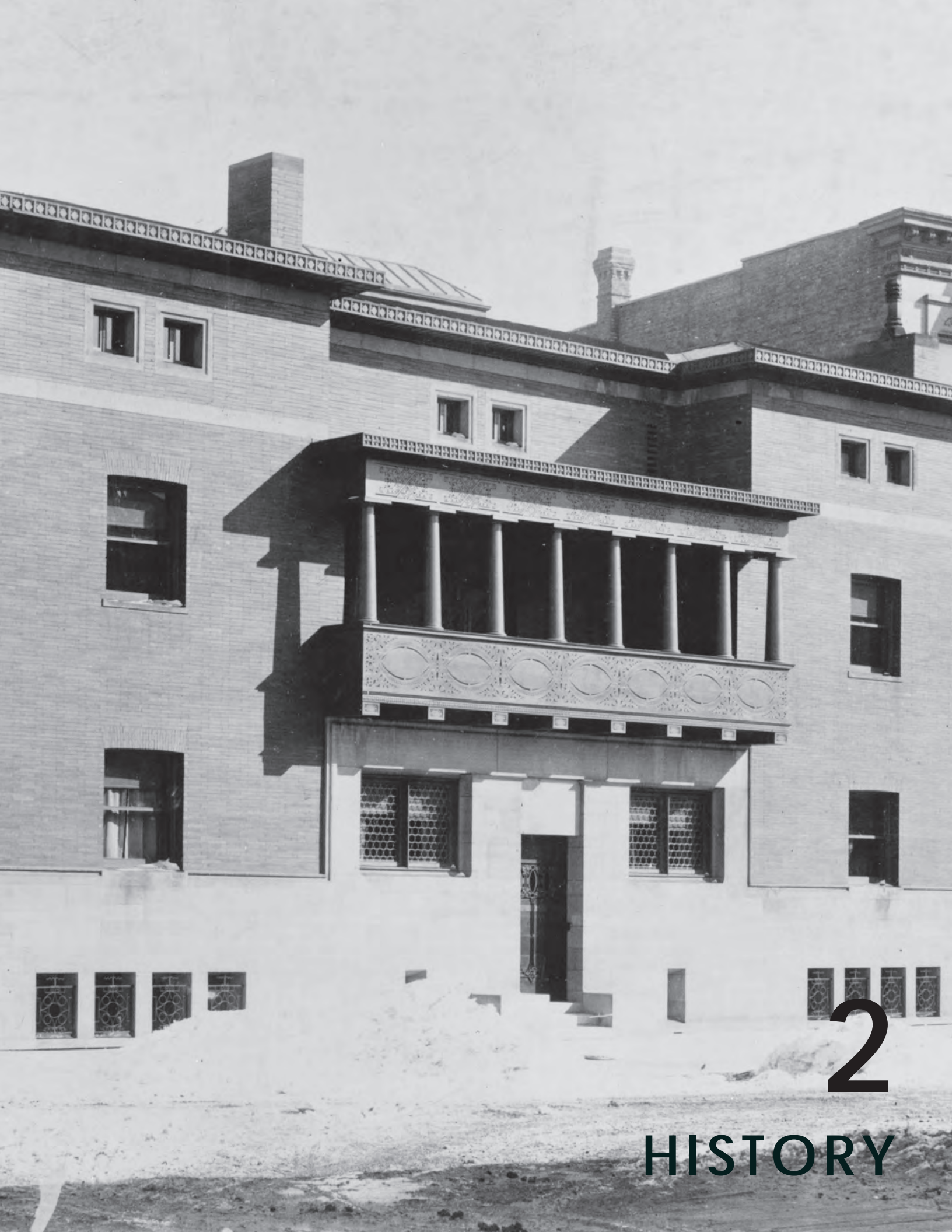
It is our intention and understanding that this report provides a guide for the future preservation and continued use of the Charnley-Persky House. Further studies and investigations may need to be conducted to address specific issues or programmatic changes that arise in the future prior to any specific proposed interventions. The overall goal of the Conservation Management Plan is to produce a document that will facilitate the best possible outcome for the long term care of this National Historic Landmark.

Acknowledgements

This Conservation Management Plan would not have been possible without the help of a number of individuals that contributed through their encouraging guidance and valuable feedback. Harboe Architects would like to thank the Society of Architectural Historians (SAH) for giving us the opportunity to help them fulfill their mission and preserve the Charnley-Persky House for future generations, including first and foremost Pauline Saliga, Executive Director of SAH and the Charnley-Persky House Museum Foundation, whose leadership and direction on this project has been immeasurable. In addition to Ms. Saliga, we would like to thank SAH staff members Anne Bird, Beth Eifrig, Helena Dean, Carolyn Garrett, Chris Higgins, and Christopher Kirbabas, who provided the team with assistance as we completed onsite survey work for the Conservation Management Plan.

Harboe Architects would also like to thank everyone that provided assistance to our team as we conducted research. The following individuals were kind enough to take time to be interviewed by our team and share their vast knowledge of the Charnley-Persky House: John Eifler, John Vinci, Tim Samuelson, Robert Furhoff, William Tyre, and Pauline Saliga.

Finally, SAH and Harboe Architects sincerely thank the Alphawood Foundation and its Associate Director, Brad White, for their generous support of this Conservation Management Plan.



2

HISTORY

HISTORIC CONTEXT

Chicago at the End of the Nineteenth Century

The City of Chicago was growing at an exponential rate at the end of the nineteenth century. Its geographic location made the city the gateway to westward expansion of the railroad and a center for industry and commerce. By 1870, the population of Chicago was closing in on 300,000.¹ Entrepreneurs such as railroad industrialist George Pullman, meatpackers Philip Armour and Gustavus Swift, and merchants Montgomery Ward and Marshall Field fueled the extensive economic growth of the city. Chicago's booming lumber industry, as well as balloon framing – developed in Chicago in the 1830s – led to inexpensive and rapid construction of buildings all over the city, often with little regard for proximity to surrounding buildings and the combustibility of materials used. An area that would come to be known as the "Loop", defined on the north and west by the Chicago River, on the east by Lake Michigan, and on the south by Twelfth Street (Roosevelt Road) was developing as the central business district of the city with retail shops, offices, and warehouses. In the fall of 1871, as businesses prospered and the city flourished, Chicago businessman and developer, Potter Palmer had just completed the construction of his new luxury Palmer House hotel on State Street. The city of Chicago was thriving. Then tragedy struck. On the evening of October 8, 1871, a fire started in or around the O'Leary barn located at 137 DeKoven Street. The fire moved quickly due to strong winds and dry conditions and lasted over a day and half, destroying roughly three and half square miles of the city, leaving 90,000 people homeless and 300 dead. The fire devastated a city that was on the rise, but Chicago would quickly rebuild and re-emerge from adversity bigger and stronger than ever before.²

At the time, the Great Conflagration of Chicago was the greatest natural disaster in American history and would lead to one of the largest mass reconstructions of a city in modern history.³ A week after the flames had been extinguished construction was already underway on nearly two hundred new buildings. New regulations were enacted and enforced requiring all new buildings constructed downtown to be fireproofed. Innovative construction techniques, the growth of the steel industry in the city, as well as the invention of the passenger elevator would eventually lead to the rise of the skyscraper. Architects, engineers, draftsmen, contractors, carpenters, bricklayers, and other tradesmen flocked to post-fire Chicago to find employment

1 1870 United States Census Records.

2 Donald L. Miller, *City of the Century: The Epic of Chicago and the Making of America* (New York: Simon and Schuster, 1996).

3 Ibid.



2-1
Lithograph of
birdseye view of
Chicago before
the fire, Library
of Congress.



2-2
Lithograph
of the City of
Chicago on fire,
Currier & Ives,
1871.

2-3

Map showing
the area de-
stroyed by the
fire, ca. 1871,
R. P. Studley
Company.



2-4

Corner of State
and Madison
after the fire,
1871, Chicago
History Museum.



rebuilding the city. One young draftsman who arrived in 1873 looking for work was Louis Henry Sullivan. At only seventeen years old, Sullivan had completed a year of architecture school at Massachusetts Institute of Technology and had a short stint in the office of architect Frank Furness in Philadelphia. Sullivan would find employment in the office of William LeBaron Jenney and remained there for seven months, at which time he departed for Paris to continue his architectural studies at the renowned École des Beaux-Arts. In 1875, he returned to Chicago to find work, but the Panic of 1873 had resulted in little building activity and Sullivan struggled to find sustained employment. In 1879, he began working for architect Dankmar Adler. By 1881, the two formed a partnership that resulted in the design and construction of hundreds of buildings throughout Chicago and beyond and would have a profound effect on the future of architecture in America.⁴

Adler and Sullivan helped to redefine Chicago's skyline at the end of nineteenth century, with the center of development taking place in the central business district of the Loop. The firm's breakthrough design came in 1889 with the completion of the Auditorium Theatre. Louis Sullivan's design for the Auditorium Theatre's façade

⁴ Hugh Morrison, *Louis Sullivan: Prophet of Modern Architecture* (New York: W. W. Norton & Company, 1935), 15-29.



2-5
State Street in
Chicago ca.
1880, Chicago
History Museum.

2-6

Left: Louis Sullivan, ca. 1875, Ryerson and Burnham Archives.



2-7

Right: Auditorium Building ca. 1890, Ryerson and Burnham Archives.



2-8

Left: Marshall Field Wholesale Building, ca. 1890, Ryerson and Burnham Archives.



2-9

Right: Schiller Theater Building, ca. 1890, Ryerson and Burnham Archives.



2-10

Left: Chicago Stock Exchange Building, ca. 1900, Ryerson and Burnham Archives.



2-11

Right: Carson Pirie Scott Store Building, ca. 1900, Ryerson and Burnham Archives.



was clearly influenced by H. H. Richardson's Marshall Field Wholesale Store with simple massing, rusticated stone, and heavy arched openings. The interior of the theater was an architectural triumph due to Adler's mastery of acoustics and air cooling system and Sullivan's distinctive ornament.⁵ Adler and Sullivan would go on to design other significant buildings in Chicago's Loop including the Schiller Building (1891-1892) and the Chicago Stock Exchange Building (1893-1894). The Schlesinger and Mayer Building (1899-1904) – later known as Carson Pirie Scott Department Store Building – was completed by Louis Sullivan after the 1895 dissolution of his partnership with Adler.

While Adler and Sullivan were instrumental in the development of Chicago at the end of the nineteenth century, many other architecture firms significantly contributed to the rise of the city including Jenney and Mundie, Burnham and Root, and Holabird and Roche. These firms, along with Adler and Sullivan, became known as the Chicago School. The group's elder, William LeBaron Jenney, was well established in Chicago before the Fire, having moved there in 1867 to start his architectural practice. Many of the architects that would become his Chicago School colleagues worked for him at early periods in their careers including the aforementioned Louis Sullivan, as well as Daniel Burnham, William Holabird, and Martin Roche. One of his young apprentices, William B. Mundie, would eventually become Jenney's business partner in 1891. Jenney became known as the "Father of the American Skyscraper" for his early iron, and later steel-framed, tall building designs including the First and Second Leiter Buildings, Fair Store Building, and Home Insurance Building – the latter often credited by architectural historians as being the first skyscraper.⁶ Daniel Burnham and John Wellborn Root met in the office of Carter, Drake, and Wight, and went on to reshape the Chicago skyline with their iconic skyscrapers including the Rookery Building, Monadnock Building, Rand McNally Building, and Masonic Temple Building, which was the tallest building in Chicago at twenty-one stories when it was completed in 1892. William Holabird and Martin Roche left their own mark on Chicago with buildings such as the Tacoma Building, Marquette Building, and Chicago Building.

5 Morrison, *Louis Sullivan*, 56-84.

6 Carl W. Condit, *The Chicago School of Architecture: A History of Commercial and Public Building in the Chicago Area, 1875-1925* (Chicago: University of Chicago Press, 1964). The Home Insurance Building's status as the first true skyscraper has been debated. It has been argued that a true skyscraper is a tall building that is completely supported on a structural skeleton frame. While the Home Insurance Building was constructed with an iron frame, the first two floors were still load bearing masonry. Jenney's first building completely constructed on a steel skeleton frame was the Fair Store Building (1891). Burnham and Root's all-steel framed Rand McNally Building was completed a year earlier in 1890. For more information see Gerald R. Larson and Roula Mouroudellis Geraniotis, "Toward a Better Understanding of the Evolution of the Iron Skeleton Frame in Chicago," *Journal of the Society of Architectural Historians*, Vol. 46 (March 1987): 39-48.

2-12

Upper Left:
William LeBaron
Jenney, Ryerson
and Burnham
Archives.



2-13

Lower Left:
Construction
of Fair Store,
Chicago History
Museum.



2-14

Right: Home
Insurance Build-
ing, Chicago
History Museum.



2-15

Daniel Burnham
and John Wel-
born Root ca.
1890, Ryerson
and Burnham
Archives.



2-16

Left: Rookery
Building, Ryer-
son and Burn-
ham Archives.



2-17

Middle: Mason-
ic Temple Build-
ing, Ryerson
and Burnham
Archives.



2-18

Right: Rand
McNally Build-
ing, Ryerson
and Burnham
Archives.



The growth and prosperity of Chicago in the late nineteenth century in many ways culminated with the World's Columbian Exposition of 1893. The Fair showcased the ingenuity and tenacity of the city of Chicago and elevated it amongst the elite municipalities of the world, cities such as New York, London, and Paris. The site of the Fair, Jackson Park on the city's south side, was transformed into a 'White City' with colossal neoclassical structures showcasing the latest in technological advances in science, industry, and agriculture, as well as fine arts and culture. Leading the team of architects responsible for designing the buildings of the Fair were Daniel Burnham and John Wellborn Root. The landscape design was charged to famed Central Park designer, Frederick Law Olmsted. Root, unfortunately, would die prematurely in 1891, leaving the great task of managing the design and construction of the Fair buildings solely to Burnham. Burnham enlisted the expertise of several East Coast architects including Richard Morris Hunt, Charles McKim, George B. Post, Robert Peabody, and Charles Atwood – a move that angered several prominent Chicago architects, most noticeably Louis Sullivan. The East Coast architects' influence resulted in Fair buildings designed in the classical French Beaux Arts style, the most significant of which surrounded a large lagoon creating the Court of Honor. Adler and Sullivan's contribution to the fair was the Transportation Building, which Sullivan embellished with a massive entry archway and his signature organic ornament; however, a precedent had been set in place. The Beaux-Arts design of the Fair would significantly influence American architecture and planning for the next forty years.



2-19

Court of Honor
at the World's
Columbian
Exposition, 1893,
Ryerson and
Burnham Ar-
chives.

Expanding North of Downtown

The north side of the Chicago River and Wolf Point are thought to be two of the earliest settlement sites in what became Chicago. In fact, it was near the present day Michigan Avenue Bridge, on the north bank of the river, where Jean Baptiste Point du Sable first settled in the 1780s. The region north of the river slowly grew over the next hundred years as native populations were relocated and commerce and industry along the river expanded. Some of the early landowners on the near north side of Chicago included the city's first mayor and later well-known railroad tycoon, William B. Ogden, as well as members of the prominent McCormick family, who built their mansions in the area north of the Chicago River. In the mid-1800s, Irish immigrants settled in the area along the north branch of the river near the factories they labored in. Further north, in what is now Lincoln Park, predominantly German immigrants formed communities, developing the land primarily for farming. Lincoln Park was also home to the first city cemetery until the 1860s, when the land was developed into a public park. The north side continued to develop throughout the nineteenth century as communities of German, Polish, Italian and other European immigrants were formed around parish churches in north side neighborhoods.⁷ The Great Fire of 1871 destroyed much of the north side; however, the area was quickly rebuilt. One of the regions that developed in the years following the Fire was the north side along Lake Michigan. In the last decades of the nineteenth century, this area would develop into the premier residential neighborhood for Chicago's elite, a status that would soon earn it the name of the Gold Coast.

7 Encyclopedia of Chicago. Accessed September 15, 2016.

2-20
View along the
Chicago River
looking north,
ca. 1890, Chi-
cago Tribune.





2-21

Vintage postcard of Palmer Residence, ca. 1911, Hidden Truths website, Northwestern University.

Development of the Gold Coast

Development of the Gold Coast was initiated by successful dry goods merchant turned real estate developer, Potter Palmer. Palmer had been prosperous redeveloping State Street following the Fire, including the reconstruction of his new fireproof Palmer House hotel. In 1882, Palmer was looking for a site to construct a new home for himself and his young wife, Bertha Honoré. Instead of building a stately mansion on Prairie Avenue, the fashionable residential district of the time for Chicago's elite, Palmer decided to purchase a site on the near north side of the city. At the time the area was predominantly marshland and considered uninhabitable by most. Palmer, however, saw potential in the land that bordered Lake Michigan and brought in sand to fill in the marsh. He enlisted architects Henry Ives Cobb and Charles Sumner Frost to design his new luxurious mansion along the lake. Cobb and Frost designed a massive forty-two room residence with towers, turrets, and battlements that gave it the appearance of a castle. The Palmers' mansion was completed in 1885 at a cost of one million dollars – an extravagant sum of money at the time. In addition to building his own home, Palmer purchased additional property along Lake Shore Drive and along Schiller Street in an effort to redevelop the area as the new residential district for wealthy Chicagoans.⁸

⁸ Wilbert Jones, Kathleen Willis Morton, and Maureen O'Brien, *Chicago's Gold Coast* (Charleston: Arcadia Publishing, 2012), 9-15.

Around the same time that Palmer was constructing his castle on the Lake, James Charnley commissioned architects Burnham and Root to design his stately mansion on the corner of Lake Shore Drive and Division Street. Charnley's house was completed in 1883, two years earlier than Palmer's massive residence. At the time, it stood as the only completed residence on Lake Shore Drive between Oak Street and Lincoln Park. The first Charnley residence was considerably larger than the house Charnley would later commission on Astor Street. The Queen Anne style house featured a large wraparound porch with decorative railings and spindles, which Root undoubtedly designed to take advantage of the views of Lake Michigan across the drive. Architectural Historian Paul Kruty succinctly described the first Charnley house as "a picturesque design more in the character of a large suburban or summer house wrapped in porches."⁹ The Charnleys lived in their lakeside retreat for less than ten years. After the Charnleys moved out, the mansion would stand for twenty more years. As the neighborhood became more densely populated in the early years of the twentieth century and developers looked to maximize lakeside lots, the first Charnley residence was demolished to make way for a luxury apartment building. In 1892, the Charnleys moved into their new home designed by Adler and Sullivan a few blocks away on Astor Street.

9 Paul Kruty, "The Charnley House in Its Architectural Context," in *The Charnley House: Louis Sullivan, Frank Lloyd Wright, and the Making of Chicago's Gold Coast*, ed. Richard Longstreth (Chicago: University of Chicago Press, 2004), 78-80.

2-22
The first Charnley house on Lake Shore Drive, ca. 1890, Chicago History Museum.



The Palmer and Charnley residences were just the first of the Lake Shore Drive mansions. In the years that followed, a number of elegant homes were constructed along Lake Shore Drive and the Gold Coast community developed into the new, stylish neighborhood for affluent Chicagoans. In 1886, real estate developer William Borden hired famed New York architect Richard Morris Hunt to design his Chateausque mansion on the corner of Bellevue Avenue and Lake Shore Drive. The same year, Solon S. Beman designed an elegant three-story stone and brick mansion at the north corner of Scott Street and Lake Shore Drive for Robert Todd Lincoln, successful Chicago lawyer and son of President Abraham Lincoln. Beman also designed a vast forty-one room mansion constructed of Bedford Limestone located at 1000 North Lake Shore Drive. The residence, completed in 1884 for attorney and grain trader Nathaniel Jones, was purchased in 1897 by John D. Rockefeller as a wedding present for his daughter Edith Rockefeller McCormick and her husband Harold Fowler McCormick, son of Cyrus McCormick.¹⁰

In 1885, Potter Palmer began selling the lots he owned in the 1400 block of Lake Shore Drive. The first three lots north of Schiller Street were purchased by Franklin MacVeagh, a wholesale grocer, lawyer, banker, and later served as the United States Secretary of the Treasury under President William Howard Taft. To design his new residence, MacVeagh hired prominent Boston architect Henry Hobson Richardson. The house, completed in 1887, was executed in Richardson's signature Romanesque style, with heavy granite walls, arched openings, and a high pitched slate roof. The three houses built directly north of the MacVeagh mansion imitated its general massing and stone walls, creating a uniform character on the block. Also located on the 1400 block of Lake Shore Drive was a Gothic style residence designed by Chicago architect Francis M. Whitehouse in 1891 for Civil War veteran, publisher, and bookseller General Alexander Caldwell McClurg.¹¹ These were just a few of the grand manors of the Gold Coast at the end of the nineteenth century. The Gold Coast neighborhood continued to grow through the turn of the twentieth century with development not only along Lake Shore Drive, but west toward State Street as well. One of the most popular thoroughfares to live on among the elite class was Astor Street.

10 Jones, Morton, and O'Brien, *Chicago's Gold Coast*, 29.

11 Kruty, "The Charnley House in its Architectural Context," 82-87.

2-23

Left: William Borden Residence, Chicago History Museum.



2-24

Right: Alexander McClurg Residence, Ryerson and Burnham Archives.



2-25

Left: Franklin MacVeagh Residence, Ryerson and Burnham Archives.



2-26

Right: Rockefeller McCormick Residence (Originally Nathaniel Jones Residence), Ryerson and Burnham Archives.



2-27

Residence of the Catholic Archbishop of Chicago, Chicago History Museum.



Gilded Age Mansions of Astor Street

Named for American businessman and real estate investor, John Jacob Astor, Astor Street was (and still is) the exclusive locale of many of Chicago's finest residences. One of the earliest and most opulent mansions on Astor Street was designed by Alfred F. Pashley and James H. Willet and completed in 1885 for the Archbishop of the Roman Catholic Archdiocese of Chicago. The brick and stone Queen Anne style residence, which is still owned by the Catholic Archdiocese, occupies a lot that spans an entire block on North Avenue between State and Astor Streets.¹² Constructed two years later, in 1887, at 1400 North Astor Street was a grand residence for Perry H. Smith Jr., son of railroad and real estate tycoon Perry H. Smith Sr. The Romanesque revival brick mansion was designed by architects Henry Ives Cobb and Charles Sumner Frost – the same architects that designed Potter Palmer's extravagant castle on Lake Shore Drive.¹³ Completed in 1888 at 1306 – 1312 North Astor Street were four Queen Anne style four-story row houses designed by Burnham and Root for James L. Houghteling. Each of the four row houses had unique facades with varying architectural elements and ornamental details. John Wellborn Root and his family lived in the row house he designed at 1310 North Astor Street. Three of the original four row houses remain. The house at 1306 was demolished in the early 1960s to make way for Bertrand Goldberg's Astor Tower.

12 Jones, Morton, and O'Brien, *Chicago's Gold Coast*, 48-49.

13 Ibid, 31.



2-28

James L. Houghteling Row Houses, 1893, Ryerson and Burnham Archives.

Built in 1891 at the northwest corner of intersection of Astor Street and Burton Place was perhaps one of the most prominent mansions in the Gold Coast. The massive Neoclassical residence was constructed of orange brick with terracotta trim and designed by famed New York architect Stanford White for Chicago Tribune publisher Joseph Medill. Medill gifted the home to his daughter Elinor and her husband Robert Patterson, who later became president of the Chicago Tribune. In 1914, the property was purchased by Cyrus McCormick II, president of the International Harvester Company. McCormick hired architect David Adler to design an addition to the rear of the house in 1927. The addition, which doubled the size of the residence, maintained the Neoclassical design of the original house. The Patterson-McCormick house was subdivided and converted into luxury condos in 1978. Architect David Adler also designed the Astor Street residence of iron and steel manufacturer Joseph T. Ryerson Jr. The three-story Neoclassical mansion, completed in 1922, featured decorative ironwork above the main entry containing Ryerson's initials. In 1931, Adler was again hired by Ryerson to design a fourth floor addition with mansard roof for the elegant residence. Both the Patterson-McCormick house and the Ryerson house still stand today as part of the remaining legacy of Astor Street.¹⁴

Construction of expensive and lavish mansions on Astor Street continued throughout the first part of the twentieth century. At the southeast corner of Astor Street and North Avenue, once stood the elegant four-story Tudor revival mansion of Gustavus Swift Jr., son of meat-packing magnate Gustavus F. Swift. The thirty room residence was designed in 1914 by architect Howard Van Doren Shaw. It was demolished in 1966 to make way for high rise apartments. Also designed by Shaw was the Classical Revival style residence at 1355 North Astor Street. The three-story mansion was completed in 1914 for lumber baron William O. Goodman and still stands today.¹⁵ The two houses, with very different styles, illustrate the architectural proficiency of designer Howard Van Doren Shaw and the vast aesthetic diversity that existed along Astor Street. Directly north of the Goodman residence is a house that distinctly stands out from the other mansions on Astor Street. Designed by the firm of Adler and Sullivan at the time that Frank Lloyd Wright was a draftsman in the office, the residence for James and Helen Charnley was avant-garde in its time and influenced the development of modern residential architecture in America.

14 Jones, Morton, and O'Brien, *Chicago's Gold Coast*, 34-39.

15 Ibid, 32.



2-29
Patterson-McCormick Mansion, Ryerson and Burnham Archives.



2-30
Left: Gustavus F. Swift, Jr. Residence, ca. 1917, Ryerson and Burnham Archives.

2-31
Right: Joseph Ryerson Jr. Residence, *Chicago's Gold Coast*.



2-32
William Owen Goodman Residence, *Chicago's Gold Coast*.

2-33

Rendering of
James Charn-
ley Residence,
Courtesy of
the Society of
Architectural
Historians.



DESIGNING AN ARCHITECTURAL ICON

Design and Construction of the Charnley House

In 1891, Chicago lumber magnate James Charnley enlisted the design services of the esteemed Chicago architecture firm Adler and Sullivan to design a new residence for his family on a small site he had purchased from Potter Palmer at the corner of Astor Street and Schiller Street, a short distance from his Burnham and Root designed mansion on Lake Shore Drive. The selection of Adler and Sullivan to design their new house was likely the result of the Charnleys' close friendship with Louis Sullivan, who had designed a cottage for them the previous year next to his own vacation home in Oceans Springs, Mississippi. Very little is known about the design process since no records or drawings are known to exist. Based on limited information available, the design was finished by the summer of 1891 with construction completed by early 1892. A description of the design appeared in the *Chicago Daily Tribune* on July 5, 1891 stating the following:

"Adler and Sullivan have prepared drawings for a handsome residence in the Romanesque style of architecture, to be erected at Astor and Schiller streets, for J. Charnley. It is to be 25x80 feet, three story and basement. The basement and first story will be of stone, the superstructure of Roman pressed brick. The estimated cost of the building is \$25,000."¹⁶

16 "Among Architects and Builders," *Chicago Daily Tribune*, July 5, 1891, 14.

It is curious that the house was described as being in the “Romanesque style of architecture” since the Charnley residence diverged significantly from Adler and Sullivan’s previous residential designs, many of which did contain elements of the Romanesque style revived by H. H. Richardson in the late nineteenth century. With the exception of the ornate balcony on the west façade, the exterior of the Charnley house, with its smooth-faced masonry and simple rectangular openings, was extremely modest in its design, and was much more a foreshadowing of the Prairie School architecture to come than it was to its Romanesque contemporaries. As historian Grant Manson asserted, the Charnley house “stands today clean and challenging among its outmoded neighbors, a ringing statement of belief in a new future for architecture.”¹⁷ The simplicity of the façade is reflected on the interior planning of the house as well. “The plan of the house is simplicity itself,” Manson stated. He went on to describe it as follows:

“A stair hall in the center rises to the top of the building and flanked on each floor by two units, those of the main story being a living room to the left [north] and a dining room (with pantry) to the right [south]. The kitchen, as was customary in designs for cramped city lots, is in the basement. The scheme entirely avoids every whimsy so expected and admired in the late Victorian Era.”¹⁸

The straightforward, symmetrical plan continued on to the top two floors of the Charnley house. Surrounding the central stair hall on the second floor of the house were two bedrooms with connecting bathrooms on the north and south and the covered balcony on the west side of stair. On the third floor was an additional bedroom and bathroom for the Charnley’s son, Douglas, on the north side of the house and quarters for the servants on the south. The central stair hall was the defining feature of the interior. It ascended up three steps from the first floor through a large arched opening to a landing and turned ninety degrees to continue up to the second floor behind a Roman marble mosaic fireplace in the main hall. Between the second and third floor the stair was cleverly designed to rise behind a screen of tapered and beaded wood spindles. Decorative balusters, reminiscent of Wright’s tapered wood holders, supported a low railing on three sides. The entire three-story stair hall was capped by a large skylight that filtered light down to the first floor of the house.

Architectural historians of the twentieth century have widely praised the Charnley house as an influential pre-cursor to modern architecture. Its simple massing and

17 Grant Carpenter Manson, *Frank Lloyd Wright to 1910: The First Golden Age* (New York: Van Nostrand Reinhold Company, 1958), 27.

18 Manson, *Frank Lloyd Wright to 1910*, 27.

planning diverged significantly from other residential designs of the late nineteenth century. The house's exceptional design has been credited to the ingenuity of architect Louis Sullivan and his young draftsman, Frank Lloyd Wright. Wright began working for Adler and Sullivan in 1887 and was charged with drafting the ornament for the Auditorium Building. He soon gained the respect of Sullivan and became the chief draftsman in the office. It is widely believed that Wright acquired significant responsibilities by 1890, including taking on the designs for the firm's few residential commissions. The Charnley house was one of Adler and Sullivan's residential commissions in which Wright had a hand. Wright took credit for the design, although not until Sullivan had been dead for eight years. With credit attributed to both Sullivan and Wright, the question has been posed for decades – who really designed the Charnley house? The following analysis seeks to provide some clarity to this ongoing controversy.

2-34

Lithograph of
James Charn-
ley Residence,
Originally
published in
The American
Architect and
Building News,
1892, Courtesy
of the Society
of Architectural
Historians.



Louis Sullivan or Frank Lloyd Wright?

Since the middle of the twentieth century architectural historians have debated the authorship of the Charnley house. Some say it was designed by Louis Sullivan, while others argue for Frank Lloyd Wright. With no physical evidence surviving in the form of drawings, written correspondence, or other primary sources, it is difficult to make a definitive determination either way. The lack of proof leaves historians to make educated guesses based on past assertions, including Wright's own statements, as well as expert knowledge of the design aesthetics and larger oeuvres of both architects.



2-35

Left: Louis H. Sullivan, ca. 1890, Ryerson and Burnham Archives.

2-36

Right: Frank Lloyd Wright, ca. 1890, Frank Lloyd Wright Preservation Trust.

Early publications about the Charnley house, including articles and images appearing in the *Chicago Daily Tribune* (1891), *Inland Architect* (1891), *Architectural Record* (1892), *Artistic Domestic Architecture in America* (1895), and the *Brickbuilder* (1903), among others, attribute the house to the firm of Adler and Sullivan. This practice was common at the time as the architects of record were credited with architectural designs. In 1901, an image appearing in *The Architectural Annual*, lists Louis H. Sullivan as architect of the house. The same image, also attributing the design to Sullivan, appeared in *The Architectural Review* seven years later. Many factors could have contributed to assigning the house to Sullivan alone, including that Sullivan had always been considered to be the chief designer in the partnership with Adler. Also, the Adler and Sullivan partnership had dissolved by 1901, so an article about Louis Sullivan would likely have only given credit to him. Furthermore, Sullivan was a close personal friend of the Charnleys, so if either of the firm partners were responsible for the design of the house, it would have certainly been him. Design of the house continued to be attributed to Sullivan until after his death in 1924.

The question of who designed the Charnley House did not really exist until 1932, when Frank Lloyd Wright released *An Autobiography*. In it Wright claimed that, "Adler and Sullivan refused to build residences during all the time I was with them. The few that were imperative, owing to social obligations to important clients, fell to my lot out of office hours."¹⁹ By the early 1890s, Adler and Sullivan's work had become increasingly commercial, especially after the success of the Auditorium Building, with very few residential projects passing through the office. The Charnleys would have likely fallen under the category of "important clients" that Wright described because of their close friendship with Sullivan. Wright affirmed that the "city house on Astor Street for the Charnleys, like the others, I did at home evenings and Sundays in the nice studio draughting room upstairs at the front of the little Forest Avenue home." He went on to state that "by preparing [the Charnley house drawings] for this purpose at home I helped pay my pressing building debts with overtime." Wright even described designing the Charnley house and alluded to its influence on his future career, attributing it to the moment he "first sensed the definitely decorative value of the plain surface."²⁰ One of Wright's colleagues at the time in the office of Adler and Sullivan was architect George Grant Elmslie. Elmslie supported Wright's claim to authorship of the Charnley house. Architectural historian, Grant Manson, interviewed Elmslie regarding the Charnley house commission while researching his book, *Frank Lloyd Wright to 1910: The First Golden Age*. According to Manson, Elmslie "unequivocally stated that the first time the design was seen in the office of Adler and Sullivan was the day when Wright brought the completed quarter-scale drawings from his home in Oak Park." Manson evidently firmly believed Elmslie and Wright. His own analysis concluded that "Although [the Charnley house] is officially an Adler and Sullivan design, it is in reality the first great monument of Frank Lloyd Wright's career."²¹

Countless other scholars have weighed in on the controversy, including Hugh Morrison in his biography of Louis Sullivan, which was first published in 1935; just a few years after Wright first published *An Autobiography* and claimed ownership of the Charnley house design. Morrison was a scholar of Sullivan, yet he too believed Wright had largely designed the house with little direction from his "lieber meister." Morrison presented the following argument:

"Frank Lloyd Wright is probably responsible for the general form, and certainly for detailing the working drawings, although the latter were traced and printed in

19 Frank Lloyd Wright, *An Autobiography* (New York: Duell, Sloan and Pearce, 1943), 110.

20 Ibid.

21 Manson, *Frank Lloyd Wright to 1910*, 27.

the office of Adler and Sullivan. It is broader in conception than any of Sullivan's other residences, with more feeling for the organization of plane surfaces, skillfully punctuated by the window voids. The severely cubic volumes suggest the beginnings of Wright's later horizontalism. Certain features, such as the balcony and the cornice, are indeed Sullivanesque, but although Wright had completely mastered Sullivan's ornament, he tended when left free to organize it in a tighter geometric fashion, eliminating much of the free-flowing efflorescence of Sullivan's leaf ornament and reducing it to a flatter plane; the difference between the detail of this balcony and Sullivan's own work is striking."²²

In his 1942 publication, *In the Nature of Materials: The Buildings of Frank Lloyd Wright 1887-1941*, Henry-Russell Hitchcock included a discussion of the Charnley house. Like Morrison, Hitchcock believed that Wright designed the residence. He emphatically wrote "There can be no question that although the general direction was Sullivan's, the designing hand here was Wright's," and, "As Sullivan's chief lieutenant in design from about 1890 until he left Adler and Sullivan in 1893, Wright certainly designed the Charnley house in Chicago."²³ However, somewhat contradictory to his affirmation of Wright's authorship of the design, Hitchcock referenced the similarities the Charnley house shared with Sullivan's Wainwright Building, suggesting "a remarkable parallel to the style."²⁴ Despite this discrepancy, Hitchcock strongly assumed Wright to be the primary designer of the Charnley house. Other noted architectural historians, including Vincent Scully and Robert Twombly, continued to sustain the belief that Wright designed the Charnley house. In his book, *Frank Lloyd Wright*, Scully briefly mentioned the Charnley house, yet was clear that Wright was the chief designer. Twombly published biographies on both Wright (*Frank Lloyd Wright: His Life and Architecture*) and Sullivan (*Louis Sullivan: His Life and Work*). In both books he too credited Wright as author of the Charnley house. In his Sullivan biography Twombly did challenge Manson's assertion that Wright designed all of the residential projects in the Adler and Sullivan office in the period between 1888 and 1893; however, the Charnley house was the one residence he did attribute to Wright, confidently stating, "Wright certainly designed the Charnley house."²⁵

While many architects and historians have suggested that Wright was largely responsible for the design of the Charnley house, others have questioned the

22 Morrison, *Louis Sullivan*, 103-104.

23 Henry Russell Hitchcock, *In the Nature of Materials: The Buildings of Frank Lloyd Wright 1887-1941* (New York: Duell, Sloan and Pearce, 1942), 12.

24 Hitchcock, *In the Nature of Materials*, 12.

25 Robert Twombly, *Louis Sullivan: His Life and Work* (New York: Viking Penguin Inc., 1986), 233.

extent of his role. In his 1960 article, "Louis Sullivan and George Grant Elmslie," architectural historian David Gebhard downplayed Wright's significance and level of responsibility in the office of Adler and Sullivan. Gebhard's argument was based on correspondence he had with both George Grant Elmslie and William Purcell. He suggested that other historians, among them Morrison and Manson, relied too extensively on Frank Lloyd Wright's own account of the Adler and Sullivan office in the period between 1887 and 1893. He argued that, "At best these [accounts] have produced an inflated picture of Wright's own contribution and have minimized the accomplishments of Dankmar Adler, Louis Sullivan, George Elmslie, Ritter, Schneider, Block, and others." Gebhard further asserted that "Wright was never the chief draftsman of the Adler and Sullivan office," and that although it was "certainly true that Sullivan was partial to Wright in many ways and that he allowed him considerable leeway in many of the projects upon which he was engaged," to suggest that "the twenty-year-old Wright was the equal of Sullivan in design during any part of the years 1887 to 1893 is not suggested by any factual evidence."²⁶ He continued by addressing the belief that all of the residential design work in the firm at that time was produced by Wright, particularly the residences for James Charnley and Albert Sullivan. According to Gebhard, "as a designer Wright was present in each of these buildings, but there are too many Sullivan features to think of these [houses] as being solely from the hand of his young draftsman."²⁷ He further explained his reasoning as follows:

26 David Gebhard, "Louis Sullivan and George Grant Elmslie," *Journal of the Society of Architectural Historians*, Vol. 19 (May 1960): 62-68.

27 Gebhard, "Louis Sullivan and George Grant Elmslie," 62-68.

2-37
James Charnley Residence,
Courtesy of
the Society of
Architectural
Historians.



"Such features as the loggia of the Charnley house and the projecting bay of the Albert Sullivan dwelling would seem to point to Sullivan rather than to Wright. The same is true of the ornament of both of these buildings, although the actual delineation was done by Elmslie and Wright. In the development of this ornament both of the draftsmen kept very close to the patterns developed and used by Sullivan at that time. A close study of the ornament of these houses indicates that a major part of the ornamental patterns was designed by Sullivan and not by Wright. Wright's own ornamental designs of the years 1894 to 1900 very seldom approach anything like the freedom and independence of this earlier work."²⁸

Gebhard's affirmation that Wright has wrongly received more credit for the Charnley house design than he rightfully deserves is shared by others, including Chicago architect, John Vinci.²⁹ Vinci firmly believes that Sullivan was the chief designer of the Charnley house. He claims that Wright's contemporary bootlegged houses as well as designs he completed directly following his departure from Adler and Sullivan lack the refinement and detail that exists in the Charnley house. Vinci cites as an example Wright's Roloson row houses. The row houses originally featured open atrium-like stair halls. The stairs had thin, closely spaced square spindles similar to those in the Charnley house. However, the execution of the stair design in the Roloson row houses, Vinci argues, lacks the elegance and sophistication of the Charnley stair.³⁰

Perhaps the strongest argument for Sullivan to date was made by Paul Sprague in his essay, "Who Designed the Charnley House: Louis Sullivan or Frank Lloyd Wright?" In it, Sprague provided a detailed account of Sullivan's progression to an architectural aesthetic of simplified geometries and smooth, planar surfaces, which occurred from 1887 to 1890. Sprague claimed that these simplified architectural qualities first appeared in Sullivan's design for the Martin Ryerson tomb with its basic massing, smooth, battered walls, and pyramidal roof. Sullivan continued to utilize simple massing and smooth stone surfaces on a larger scale including on the Walker Warehouse and on the limestone facades on the upper floors of the Auditorium Building, which Sprague described as "strictly planar." While Sullivan's experimentation was clearly evident in his commercial works, Sprague did point to one residential commission in which Sullivan simplified the geometry of the architecture. Unlike contemporary houses designed by Sullivan that were clearly

28 Ibid.

29 John Vinci has been involved in the restoration of several Louis Sullivan designed buildings, including the Carson Pirie Scott Store Building, the Chicago Stock Exchange trading room, and the restoration of the balcony on the Charnley house. He is also the co-author of the book, *The Complete Architecture of Adler & Sullivan*.

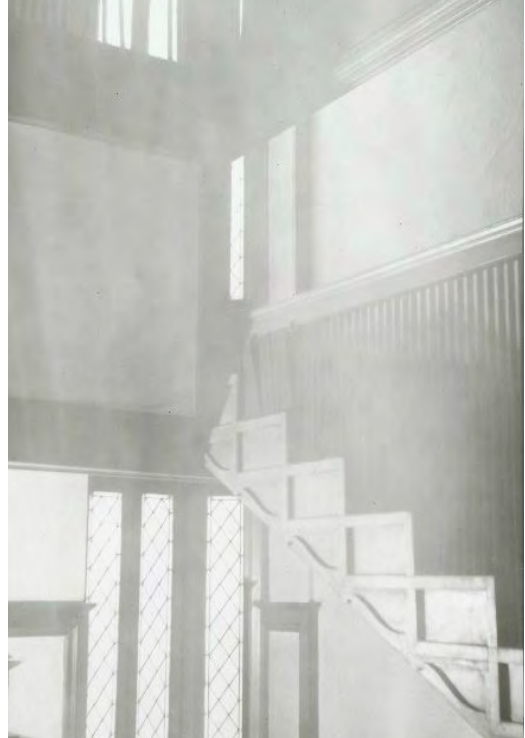
30 Interview with John Vinci, July 21, 2016.

2-38

Left: Stair hall
in the James
Charnley
Residence, ca.
1938, Grant
Manson Collec-
tion, Oak Park
Library.

**2-39**

Right: Stair hall
in the Roloson
Row House,
ca. 1938, Grant
Manson Collec-
tion, Oak Park
Library.



Richardsonian in character, the row houses for Victor Falkenau in Chicago had a “general smoothness of their limestone surface, which in some places [was] reduced to absolute flatness interrupted only by sharp-edged windows.” Sprague further explored Sullivan’s minimalism in the design of the simple cube with overhanging slab roof of the Getty Tomb and, at a much larger scale, the Wainwright Building. In the lower two stories of the Wainwright Building Sprague maintained that “the solid rectilinear geometry of the whole building is clearly expressed in the flat sandstone walls that are interrupted only by crisply cut openings for windows and entrances.” Through his academic study of Sullivan’s evolution as an architect during the period 1887-1890, Sprague concluded that the “Charnley house, with its simple geometric masses and crisp, smooth surfaces, seems a natural continuation of Sullivan’s interest in reducing architecture to abstract geometry,” and the “circumstantial evidence points overwhelmingly to Sullivan as author of the Charnley house.”³¹

In his analysis, Sprague only referenced one residential design by Sullivan, the Falkenau row houses, which except for the smooth faced stone, displayed little resemblance to the Charnley house. Sullivan’s other residential work leading up to and shortly after 1891 often followed the Richardsonian Romanesque style that

31 Paul Sprague, “Who Designed the Charnley House: Louis Sullivan or Frank Lloyd Wright,” in *The Charnley House: Louis Sullivan, Frank Lloyd Wright, and the Making of Chicago’s Gold Coast*, ed. Richard Longstreth (Chicago: University of Chicago Press, 2004), 133; 140; 158.

was popular at the time. This was evident in the rock-faced stone façade, arched doorway, and steep gables of Sullivan's 1889 design for the Ira A. Heath house in Chicago. A contemporary project to the Charnley house, the Albert Sullivan house, completed in 1892, broke from the traditions of the Romanesque with its simplified massing, smooth stone façade, and projecting bay window; however, it too significantly differed from the solution Sullivan developed for the Charnley house.³² As previously indicated, the Charnley house design was more aligned with the aesthetics seen in Sullivan's commercial projects. The simple massing and smoothness of the façade resembled the first two stories of the Wainwright Building, which was designed around the same time, while key features of the house emulated those found in the Auditorium Building. While at a much smaller scale, like the Auditorium Building, the Charnley house features a staircase rising from the first floor through an arched opening and to a landing before turning ninety degrees and continuing up to the second level. The Charnley house and Auditorium Building also both contain similar second floor balconies on their primary facades. The Auditorium Building, completed in 1889, was Sullivan's breakthrough design and no doubt influenced his later work, including the Charnley house.

32 Many architectural historians have credited the Albert Sullivan house to Frank Lloyd Wright as well. Wright himself claimed to have designed it in *An Autobiography*.



2-40

Left: Victor Falkenau Row Houses, Grant Manson Collection, Oak Park Library.

2-41

Right: Ira A. Heath Residence, Grant Manson Collection, Oak Park Library.

2-42

Left: Ryerson Tomb, Graceland Cemetery, Ryerson and Burnham Archives.



2-43

Right: Getty Tomb, Graceland Cemetery, Ryerson and Burnham Archives.

2-44

Left: Walker Warehouse, Ryerson and Burnham Archives.



2-45

Right: Wainwright Building, Ryerson and Burnham Archives.

2-46

Left: Albert Sullivan Residence, ca. 1938, Grant Manson Collection, Oak Park Library.



2-47

Upper Right: Dr. Alison Harlan Residence, ca. 1940, Ryerson and Burnham Archives.

2-48

Lower Right: Stair railing in Blossom House, ca. 1938, Grant Manson Collection, Oak Park Library.



As seen with Sullivan's residential work, Wright's designs prior to 1891 differed significantly from the Charnley house. Many of Wright's early houses followed the Shingle style tradition of his first employer, Joseph Lyman Silsbee, including his own Oak Park residence completed in 1889. By the early 1890s, Wright began to experiment with several different styles of architecture. It would be several more years before his distinctive Prairie style was fully achieved. While still working for Adler and Sullivan and contemporary to the design of the Charnley house, Wright began taking commissions on the side to design houses for clients throughout the Chicago region. These so called "bootleg houses" would eventually lead to his dismissal from Adler and Sullivan. One of these "bootleg houses" was the Harlan house, which was completed in 1892. Like the Charnley house, the Harlan house featured a projecting balcony on its primary façade and an open stairwell on the interior; however, the overall form, massing, and spatial layout of the house were much more complex. Although noticeably disparate in style, the colonial revival George Blossom house, also completed in 1892, had some similarities to the Charnley house. In the Blossom house, Wright borrowed the dining room plan from H. H. Richardson's Glessner House and included arched openings between rooms as well as a screen wall of spindles at the stair; however, the turned spindles appeared to be catalog items and far less refined than those designed for the Charnley house stair. Although there are some similarities in these contemporary Wright designed houses, it is apparent that the Charnley house design is simpler in its massing, further refined in its form and planning, and more sophisticated in its detailing.

The Wright design that most closely emulates the simple form, symmetry, and materiality of the Charnley house is the William Winslow house, completed in 1893 in River Forest, Illinois. This house was completed after Wright left Adler and Sullivan and has often been cited as the first step toward his Prairie School architecture of the early twentieth century. Like the Charnley house, the Winslow house's primary façade is symmetrical, with rectangular windows, a stone base, and roman brick walls. Also, similar to the Charnley house, one enters on center axis through a door flanked by windows and bordered by a stone surround. Unlike the Charnley house, above the first story the material changes to ornamental terracotta and a large hip roof with overhanging eaves dominates the top of the house. In addition, the simple massing of the Winslow house transforms on the rear elevation, where the configuration becomes much more picturesque. The two houses further contrast in their interior layouts; however, the Winslow house does feature a stair with thin, closely spaced spindles that create a screen, similar to the Charnley house, although not as prominently featured.

2-49

Upper Left: George Blossom Residence Living Room, 2013, Harboe Architects.



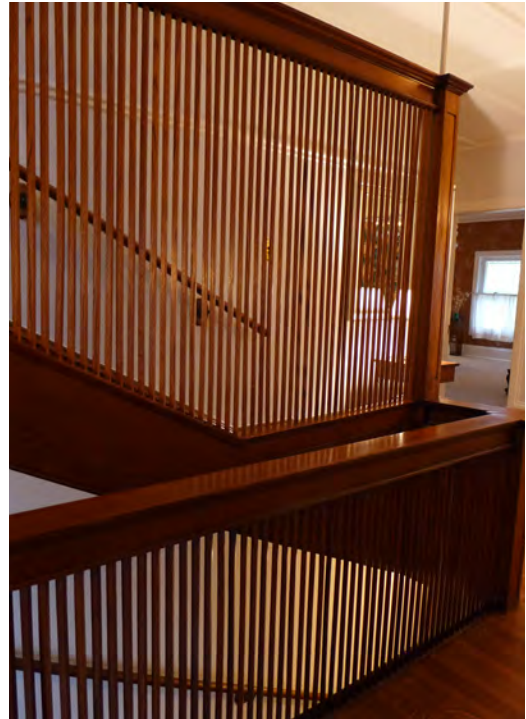
2-50

Lower Left: William H. Winslow Residence, 2015, Harboe Architects.



2-51

Right: Winslow Residence Stair, 2015, Harboe Architects.



Was the Charnley house designed by Louis Sullivan or was it Frank Lloyd Wright? With no decisive proof either way, it is likely that scholars of both architects will continue to debate this issue indefinitely. Reviewing Sullivan's contemporary work and taking into consideration that he was the lead design partner in the office at the time, it is likely he developed the overall design scheme, massing, as well as the ornamental detail on the exterior and throughout the interior of the house. Looking at Wright's collection of projects in the 1890s and understanding that he was a young draftsman at the time, it is likely that he did not single handedly design the Charnley house as he described in *An Autobiography*. However, certain features of the house appear to exhibit the influence of Wright including the flat, geometric fret-sawn ornament on the face of the balcony and on the second floor landing; the "screen" of elongated, tapered balusters that artfully separate the second floor landing from the stairs leading to the third floor; and the tapered balusters on the third floor landing that closely resemble Wright's later weed holders for prairie grasses. Therefore, although it is difficult to prove with certainty without any extant physical evidence, it is likely both Sullivan and Wright contributed to the design of the house – Sullivan as lead designer, completing the symmetrical plan and overall concept for the house, and Wright as draftsman, following his master's scheme while adding his own architectural aesthetic to the final design. Regardless of Sullivan's and Wright's roles in the design of the house, it is generally agreed by architects and historians that the Charnley house was innovative for its time and influenced the development of modern American residential architecture.

POST-CONSTRUCTION HISTORY OF THE CHARNLEY HOUSE

The Charnley Period

James Charnley was a prominent businessman in Chicago's lumber trade throughout the latter part of the nineteenth century. He was born in Philadelphia, Pennsylvania in 1844 to William and Elizabeth Charnley, attended Yale College, and moved to Chicago in 1866 where he became a partner in the lumber business of Bradner, Charnley & Company. In 1871, when the firm closed, he formed Charnley Brothers & Company along with his brother, Charles. That same year, Charnley married Helen Douglas, the daughter of John M. Douglas, president of the Illinois Central Railroad Company. James and Helen Charnley had three children – a son, Douglas, and two daughters, Helen and Bettie, both of whom died in childhood. In 1881, Charnley began another business venture in the lumber trade, partnering with his father-in-law, who had recently retired from his position at the Illinois Central Railroad. This partnership continued until 1884. Charnley continued his involvement in the lumber industry eventually moving his interests out of Chicago and focusing on businesses in Wisconsin and Minnesota.³³

The Charnleys moved into their new Adler and Sullivan designed home at 99 Astor Street upon the completion of construction in May 1892. Very little has been discerned about James and Helen Charnley's period living in the house. No known family photographs or written descriptions exist that could provide some insight into the Charnley family's life on Astor Street. The Charnleys occupied the house for a short ten-year period. In 1902, because of James Charnley's failing health, he and his wife moved to Camden, South Carolina. The warmer climate and relaxing environment was thought to be better for Charnley's health. Despite the move, Charnley would only live three more years in South Carolina, succumbing to Bright's disease in February of 1905.³⁴

After her husband's death, Helen Charnley and her son, Douglas, frequently traveled to Europe. Helen spent much of the later years of her life in England, Italy, Switzerland, and France. Throughout most of the period between 1912 and 1920, Helen resided at the Villa Beatrice in San Remo, Italy.³⁵ Douglas joined his mother in

33 George W. Hotchkiss, *Industrial Chicago: The Lumber Interests* (Chicago: Goodspeed Publishing Company, 1894): 452-453.

34 Longstreth, "The Elusive Charnley House," 22-23.

35 Ancestry.com. *U.S., Consular Registration Certificates, 1907-1918* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2013. Original records: Consular Registration Certificates, compiled 1907-1918. ARC ID: 1244186. General Records of the Department of State, 1763-2002, Record Group 59. National Archives at Washington, D.C.

2-52

Left: James
Charnley, 1865,
Courtesy of
SAH.



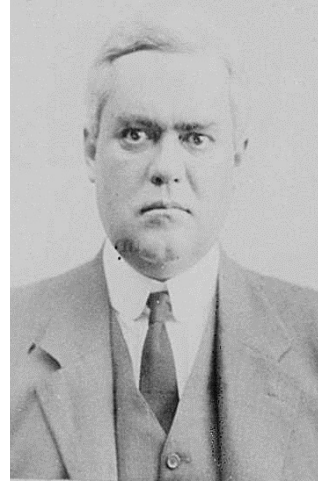
2-53

Center: Helen
Charnley, ca.
1870, Courtesy
of SAH.



2-54

Right: Douglas
Charnley, ca.
1915, Ancestry.
com.



Italy for a portion of her stay there and also traveled to England, Switzerland, and France. During World War I, he worked with the Red Cross on the Italian front, for which he received multiple honors. Douglas married Renee Canee in Paris on June 27, 1927. He died on September 21, 1927 in Gardone Riviera, Italy at the age of 53.³⁶ Helen survived her son and lived out her remaining days in Switzerland where she died on January 4, 1930 at the age of seventy-six.³⁷

The Charnleys' Gold Coast residence was not sold when they moved to South Carolina. Starting in 1902, it was rented to a series of three tenants. The first was Joseph Winterbotham and his family. Winterbotham was involved in the cooperage business and was president of J. H. Winterbotham & Sons. He and his wife, Genevieve, had four children, including Rue Winterbotham (Carpenter), who is known today for her Art Deco design of the interiors at The Casino in Chicago. The second tenants were Ogden and Marion McClurg. McClurg, the son of General Alexander Caldwell McClurg, became influential in the renaissance of the Streeterville area and built the first apartment buildings there.³⁸ The final tenant, Redmond Davis Stephens, a partner in the law firm of Scott, Bancroft, Lord and Stephens, and his wife, Marion, purchased the house from Helen Charnley in November of 1911 for \$24,000.³⁹ The Stephens only lived in the house for seven more years, selling it in 1918 to prominent Chicago real estate developer, James Breckenridge Waller, Jr.

³⁶ Yale University Obituary Record of Graduates Deceased During the Year Ending July 1, 1928 (Yale University: New Haven, 1928): 143-144.

³⁷ Ancestry.com. *Reports of Deaths of American Citizens Abroad, 1835-1974* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2010. Original record: National Archives and Records Administration (NARA); Washington, D.C.; General Records of the Department of State; Record Group: RG59-Entry 205; Box Number: 1527; Box Description: 1930-1939 Switzerland Ca - Ku

³⁸ Timothy V. Barton, *Charnley House Historical Research Report*, February 1987.

³⁹ "Chicago Real Estate Sales in Detail for Week," *Chicago Daily Tribune*, November 12, 1911.

The Waller Period

The Waller family occupied the house for the longest period of any other owner, from 1918 to 1969, and made several renovations and additions during their fifty-one year occupancy in an effort to update the house to fit their needs. James B. Waller, Jr. did not have much time to fully appreciate his new home. Two years after purchasing the house in 1918, he died and the house passed to his son, James B. Waller III. Waller, like his father, was in the real estate business and later became a Republican committeeman and alderman for the 43rd ward. He married Sarah Given in 1925 and they had two children, James and Robert. They divorced in 1934 and a year later Waller married Nettie Johnson.

It was during Waller's ownership, in 1927, that an addition was made to the south side of the house. Although the addition significantly altered the symmetry of the west façade, it was done using brick and stone that carefully matched the original materials in order to seamlessly blend with the existing building. The addition included a new kitchen on the first floor, a bedroom on the second floor, and two bedrooms on the third floor. There were also two small recessed porches on the first and second floors. It was also likely that around the time the addition was completed the second floor balcony on the west side of the house was glazed in to add more year round usable space to the house. Additional alterations to the house included renovating the bathrooms and third floor servant rooms, as well as adding a door on the back (east) side of the house to access the service stair.⁴⁰

Photographs taken by Grant Manson in the late 1930s provide a glimpse of what life was like for the Waller family when they occupied the house including furnishings, artwork, light fixtures, and wall treatments – first floor walls were covered with grasscloth. Robert A. Waller, son of James B. Waller, III, recalled the grasscloth wallcoverings when he was interviewed by historian Timothy Barton in 1987. Mr. Waller, who lived in the house from his birth in 1928 until his parents divorced six years later, also remembered that “the children’s room was on the third floor to the north, and the maid’s room was on the opposite side. His room, he recollected, had floral print wallpaper. Unfortunately, Mr. Waller’s short time living in the home at such a young age provided very few memories of the Charnley house. He also believed that any family photographs or other records relating to the house were likely destroyed when his parents died.”⁴¹

40 Longstreth, “The Elusive Charnley House,” 24-25.

41 Barton, *Charnley House Historical Research Report*, 1987.

2-55

Charnley House, ca. 1940, Gilman Lane Collection, Oak Park Library.



2-56

Left: Main Hall looking at the entry door, ca. 1938, Grant Manson Collection, Oak Park Library.

2-57

Right: Main Hall looking north, ca. 1938, Grant Manson Collection, Oak Park Library.





2-58

Left: Main Hall looking at the stair, ca. 1938, Grant Manson Collection, Oak Park Library.



2-59

Right: Dining Room fireplace, ca. 1938, Grant Manson Collection, Oak Park Library.



2-60

Living Room fireplace, ca. 1938, Grant Manson Collection, Oak Park Library.

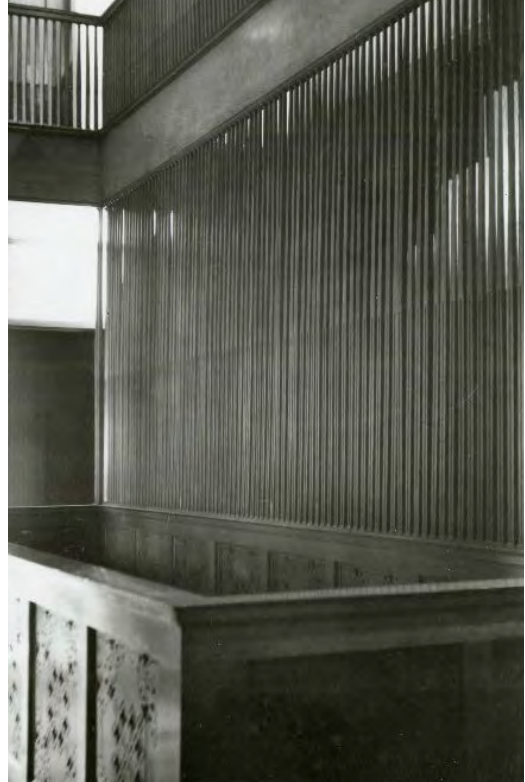
2-61

Left: Second floor stair hall, ca. 1938, Grant Manson Collection, Oak Park Library.



2-62

Right: Stair railing and screen, ca. 1938, Grant Manson Collection, Oak Park Library.



2-63

Left: Looking down at first floor stair hall, ca. 1938, Grant Manson Collection, Oak Park Library.



2-64

Right: Fireplace in third floor bedroom, ca. 1938, Grant Manson Collection, Oak Park Library.





2-65

West facade of the Charnley House, 1963, HABS, Library of Congress.



2-66

Balcony and main entrance of the Charnley House, 1963, HABS, Library of Congress.



2-67

Stair rail detail at the second floor, 1963, HABS, Library of Congress.

James Waller III passed away in 1949; however, his widow, Nettie Waller continued living in the house until she sold it in 1969. Nettie Waller understood the architectural significance of her house and was committed to its preservation. As other stately homes in the Gold Coast, such as the Palmer and McCormick Mansions on Lake Shore Drive, began to be sold and demolished by developers to build new high rise condo buildings, the Charnley house remained due in part to Mrs. Waller's stewardship. In 1963, she consented to have the house recorded by the Historic American Buildings Survey (HABS) and in 1970 it was listed in the National Register of Historic Places. Throughout the years she owned it, Mrs. Waller also graciously opened her home up to architects, students, and tourists that came to see the architectural gem.⁴² Eventually the house became too much for the aging Nettie Waller to maintain, and in 1969, she sold it and the adjacent property she owned to Hawley Smith with the understanding that Smith and his wife would occupy the house. Smith, however, had other plans for the site.

Charnley House Threatened

The 1970s were a precarious time for the Charnley house. The neighborhood continued to change as Gold Coast mansions of the late nineteenth and early twentieth centuries continued to be replaced by high rise condominium buildings. The Charnley house was also threatened by redevelopment. The house's owner, Hawley Smith, failed to understand its historical significance. He adamantly opposed landmark designation for the house, seeing it as "an invasion of [his] right of privacy" and did not want the city telling him what he "can or cannot

42 Louise Hutchinson, "Architectural Landmark's Owner Is Hostess to Busloads: Adler Home in Astor Street is Open House," *Chicago Tribune*, February 21, 1965.

2-68
Rendering
showing pro-
posed condo
conversion and
addition, 1976,
Chicago Daily
News Archives,
Chicago History
Museum.



do with the property."⁴³ Although the house was successfully landmarked in 1972, Smith continued to pursue plans to redevelop it and the surrounding properties. A plan proposed by Smith in 1976 involved converting the Charnley house into condominiums with a large addition to the east along Schiller Street. The plan, if executed, would have resulted in an unsightly addition to the back of the house and would have divided up the interior into condo units, significantly altering its historic integrity. Since the Charnley house was a local landmark, the plan was reviewed by the Commission on Chicago Landmarks. Architect and preservationist John Vinci vehemently opposed Smith's plan and testified at the commission hearing to the significance of the Charnley house, arguing that the proposed plan would radically alter the historic structure.⁴⁴ Because of testimonies by Vinci and other preservationists, the plan was rejected by the Landmarks Commission and the house remained intact. Smith, having failed in his pursuit to redevelop the property, put the Charnley house up for sale.

Restoring the Charnley House

In 1979 the Charnley house was sold to real estate developer Lowell Wohlfeil, who resided there along with his partner Larry Duvall, a docent with the Chicago Architecture Foundation. Wohlfeil and Duvall were empathetic to the architectural significance of the house, and undertook selected restoration projects. A major project they pursued was the restoration of the balcony on the west side of the house. The work was meticulously executed by architect John Vinci with assistance from Timothy Samuelson. According to Samuelson, many of the original wood elements were too deteriorated to repair. These architectural elements, such as the wood columns, ornamental panels, wood decking, and decorative brackets were carefully replicated by hand by Hanson Millwork. The ornamental frieze was salvaged and restored. Although not original to the house, windows between the columns were reinstalled at the request of the client, who insisted that the balcony remain enclosed.⁴⁵ Wohlfeil and Duvall's time in the house was short lived. A few years after completing the balcony restoration, they moved out of the Charnley house and put it up for sale.

In 1986 the house was sold to the Skidmore Owings and Merrill (SOM) Foundation, which intended to use it as a headquarters for the recently established Chicago Institute for Architecture and Urbanism (CIAU), a think tank for architectural theory and design, offering fellowships to promising individuals to conduct research on

43 Casey Bukro, "Throwing Charnley House Into the Landmark Arena," *Chicago Tribune*, May 21, 1972.

44 Interview with John Vinci, July 21, 2016.

45 Interview with Timothy Samuelson, November 29, 2016.

2-69

Left: Exterior restoration, 1987, Skidmore, Owings & Merrill.



2-70

Right: Removal of south addition, 1987, Skidmore, Owings & Merrill.

2-71

Left: Skylight demolition, 1987, Skidmore, Owings & Merrill.



2-72

Right: Masonry restoration, 1987, Skidmore, Owings & Merrill.

2-73

Left: Interior plaster removal, 1987, Skidmore, Owings & Merrill.



2-74

Right: Restoration of mosaic fireplace, 1987, Skidmore, Owings & Merrill.

2-75

Left: Window restoration, 1987, Skidmore, Owings & Merrill.



2-76

Right: Restoration of arched opening, 1987, Skidmore, Owings & Merrill.

subjects relating to architecture and design. Architect Bruce Graham, who was a partner at SOM, was Chairman of the SOM Foundation and was instrumental in the establishment of the CIAU. The new research institution was directed by Dr. John Whiteman, a professor at Harvard University's Graduate School of Design. Fellowship recipients utilized the house as a base for their research projects. As the home of the CIAU, the Charnley house hosted a rotating group of fellows including architects, artists, and critics for study periods ranging from three months to a year.⁴⁶

In the charge of new owners, the house underwent a comprehensive restoration completed by Skidmore Owings and Merrill (SOM) and led by architect John Eifler. Construction started in the spring of 1987 and was completed by the following spring. A major component of the restoration was the removal of the 1927 addition and reconstruction of the south side of the house to reestablish its original composition. The south facade was rebuilt with new Roman brick that closely matched the color and appearance of the original brick. According to Eifler, the original brick had a slight green tone which was the result of linseed oil in the brick. To try to replicate this appearance, the newly rebuilt south facade was coated in linseed oil. Furthermore, because there was no historic documentation of the south facade, the restoration team relied on evidence found during demolition. The removal of plaster on the south wall uncovered the locations of the original window openings. Limestone sills and window surrounds were recreated based on the sills and surrounds located on the west and north facades.⁴⁷

Work also included the restoration and repointing of the exterior masonry. When restoration work began in 1987, the mortar was very dark. The masons were able to remove the mortar back to what was determined to be the original mortar, which was used to find a suitable matching mortar to repoint the exterior facades of the house. Damaged stone and brick was repaired or replaced as needed and salvaged brick was used to recreate the brick screens on the north and west facades. Another major component of the exterior restoration was the replacement of the roof and skylight. The copper shingle roof was in poor condition and was replaced with a new standing seam copper roof. Original portions of the copper cornice were salvaged and reused where possible. New cornice elements were designed to match the original. The skylight was completely rebuilt and steel reinforcing was added to the framing supporting it. Steel flitch plates were also added to the joists in the Library to reinforce the floor above.⁴⁸

46 *Progressive Architecture*, vol. 4, 1989, 80.

47 Interview with John Eifler, March 24, 2017..

48 Ibid.

The west balcony, which had been enclosed in the 1920s, was restored back to its original appearance and returned to an exterior space. The windows were removed and the columns were replaced. The tile floor was also removed, and a new wood deck and drainage system were installed. The entire balcony was also repainted.⁴⁹

Interior restoration work included the rehabilitation of the built-in wood cabinets and millwork, doors, windows, wood flooring, fireplaces, and plaster walls and ceilings. While much of the millwork in the house was salvaged and restored, many missing elements had to be recreated. The original cabinet doors in the arched niche in the main hall were found and purchased for reinstallation. The picture rail in the second and third floor stair hall was missing and needed to be recreated, as well as the interior windows located on the north and south ends of the hall. The wood benches flanking the doors to the balcony on the second floor as well as the window seats and drawers below the Library windows were also added. The mosaic fireplace in the main hall on the first floor had been covered with lath and plaster. The lath was nailed into the mosaic causing significant damage. As part of the restoration, the plaster and lath was removed and the mosaic was carefully reset and replaced where needed with epoxy.⁵⁰

Interior finishes had been updated many times since the house was built in 1892 and many of the rooms had wallpaper when the restoration began. Most of the plaster in the house, which had multiple layers from years of re-plastering, was completely removed and replaced with new plaster. Prior to removal, existing wall and ceiling finishes were sampled by architectural conservator Robert Furhoff in order to analyze and document the original plaster. The new wall and ceiling finishes were textured to resemble the original plaster; however, the original finish likely had a much finer texture than the plaster finish used in the 1987 restoration.⁵¹

The wall sconces installed throughout the house were designed by Michael Graves at the request of Bruce Graham. The one original light fixture that existed in the house when the restoration began, the pendant in the vestibule, was restored.⁵² Additionally, mechanical and electrical systems in the house were upgraded as part of the project, including the complete rewiring of the electrical system and

49 Interview with John Eifler, March 24, 2017.

50 Ibid.

51 See Appendix for Charnley-Persky House Interior Architectural Finishes Report completed by Building Conservation Associates in October 2016 for a review of previous findings.

52 Interview with John Eifler, March 24, 2017.

the addition of central air conditioning.⁵³ The final result of the restoration was a house that more closely resembled its original 1892 appearance while allowing for modern amenities and uses. When it was completed, the project received the Distinguished Restoration Award from the Chicago Chapter of the American Institute of Architects.

A Lasting Legacy

The SOM Foundation's Chicago Institute for Architecture and Urbanism operated in the Charnley house until 1994, when they decided to move out, and an agreement was reached to lease the Charnley house to Seymour H. Persky, a Chicago attorney and real estate investor who had a great appreciation for the work of Adler, Sullivan and Wright. The following year, Persky donated funds for the purchase of the house to the Society of Architectural Historians (SAH), an international not for profit organization dedicated to the study, interpretation, and conservation of architecture worldwide. At the time, SAH was headquartered in Philadelphia. Persky's donation came with the understanding that SAH would move its operations to Chicago and make the Charnley house its permanent home. After moving into the house, SAH renamed it the Charnley-Persky house in honor of its generous benefactor. Since 1995, SAH has managed the house, conducting all business for the organization, as well as operating public tours and programs.

53 Ibid.



2-77

Post-restoration view of the Charnley House, ca. 1988, Hedrich Blessing.

Since acquiring the Charnley-Persky House, SAH has undertaken two significant rehabilitation projects. In 2001, it was determined that the sidewalk in front of the Charnley-Persky House on Astor Street and concrete vault that supported it were in poor condition and needed to be demolished and completely rebuilt. SAH hired architect John Eifler, who led the restoration for SOM in 1987, to complete the reconstruction of the sidewalk vault. Additional work included tuckpointing, painting, parging and waterproofing the foundation walls, and upgrading sewer and storm drainage onsite. Exterior work also included laying brick pavers in the parking area behind the house, building a brick blind to enclose the garbage can storage area, installing a wrought iron fence to the east of the property, and installing custom-designed wrought iron fences around the front parkway planting areas. In 2014, a sewer line back up through the second floor toilet room caused significant flood damage to the Library and basement. The east half of the plaster ceiling in the Library was removed and replaced. Significant sections of the plaster walls and ceilings were also replaced in the basement. A new quarry tile floor was also installed in the basement at that time.

In the Summer of 2010, students from DePaul University participated in an archaeological excavation in the parking area on the east side of the house. The students uncovered hundreds of items dating from the late nineteenth century including jars from food items, glass bottles, broken pieces of china, patent bottles, pots and pans, and other period items. The uncovered artifacts provided some indication of what every day life was like when the Charnleys occupied the house. The dig was supervised by Dr. Rebecca Graff who organized a second dig in 2015 for students from Lake Forest College. Funded by a grant from the Mellon Foundation, the project also included cataloging and researching the found artifacts in the hopes of organizing an exhibition in the house in the future.⁵⁴

The Charnley-Persky House survives today as a treasured part of Chicago's architectural heritage. SAH continues to be a good steward of the house through its ongoing care and maintenance as well as its continued interpretation and advancement of the house's architectural legacy.

⁵⁴ Meredith Rodriguez, "Students dig for architectural treasures in Gold Coast," *Chicago Tribune*, July 28, 2015. Additional information from Pauline Saliga, Executive Director of the Society of Architectural Historians.



3

BUILDING DESCRIPTION

SITE DESCRIPTION

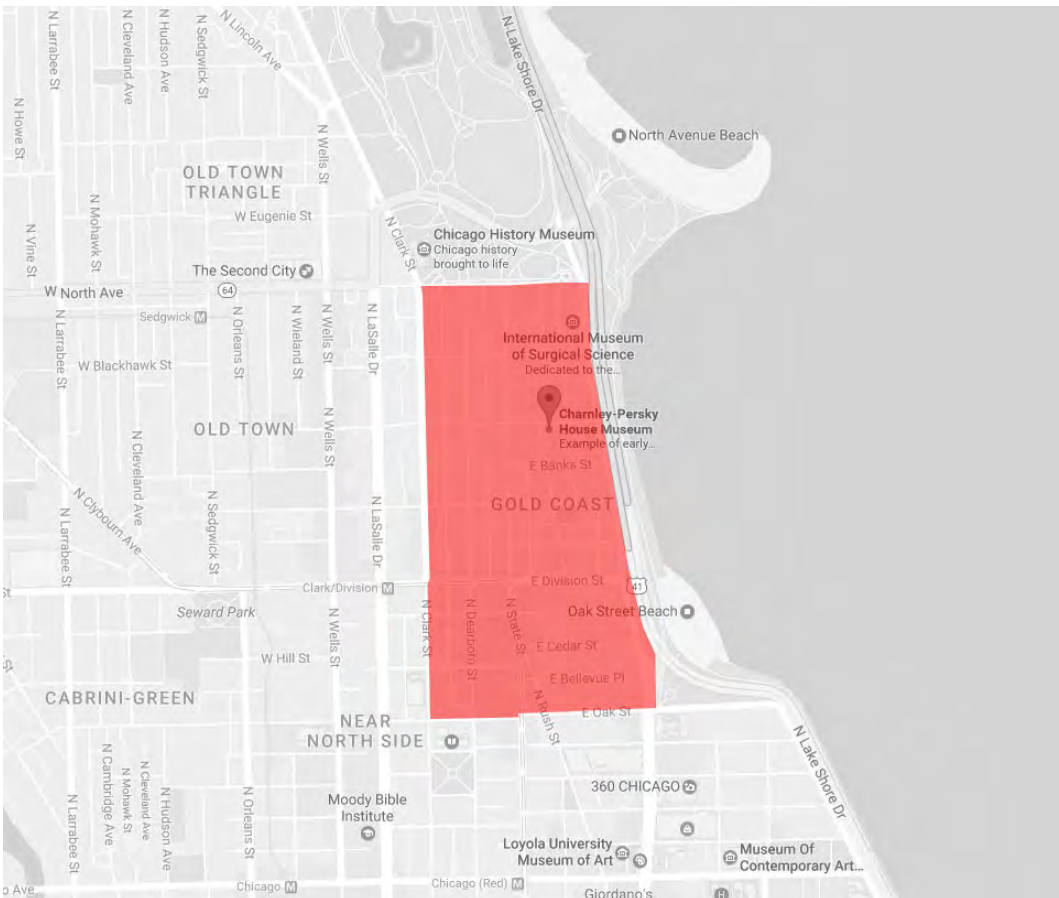
Surrounding Neighborhood

The Charnley-Persky House is located in the Gold Coast neighborhood in Chicago, Illinois. The Gold Coast is located north of downtown Chicago along Lake Michigan. Its boundaries are defined by Lake Shore Drive on the east, Clark Street on the west, North Avenue on the north, and Oak Street on the south. The Gold Coast is made up of a mix of late 19th and early 20th century row houses, mansions, and low rise buildings, as well as high rise apartments and condos from the 1920s and mid-20th century.

Site

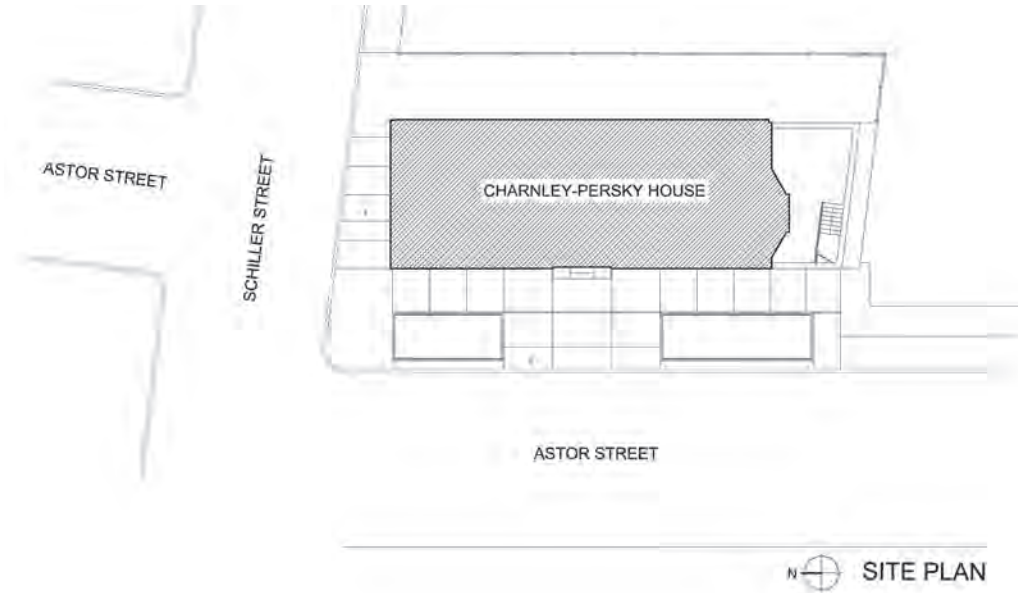
The Charnley-Persky House is located at 1365 North Astor Street, at the southeast corner of Astor and Schiller Streets. The lot measures 35 feet by 84 feet. The house is built up to the sidewalk on the Astor Street (west) and Schiller Street (north) sides and measures 25 feet by 65 feet. There is an enclosed service courtyard on the south side of the house that roughly measures 20 feet by 25 feet. A service driveway on the east side of the house measures 10 feet by 84 feet.

3-1
Map of north side of Chicago showing the area of the Gold Coast (in red), 2017, Google Maps.





3-2
Aerial view of
Chicago's Gold
Coast, 2015.



3-3
Charnley-Persky
House Site Plan,
2017.



3-4
Left: Looking
east toward
Charnley-Persky
House, 2016,
Harboe Archi-
tects.

3-5
Right: Looking
north along
Astor Street,
2016, Harboe
Architects.

BUILDING DESCRIPTION

Building Exterior

The Charnley-Persky House has a simple rectangular massing and is three stories with a raised basement. The raised basement is clad on the north and west facades in gray ashlar limestone laid in a book matched pattern up to the first floor window sills. Above the basement the facades are clad in yellow Roman brick in a running bond pattern except for a gray limestone string course that runs around the three principal facades between the second and third floor, as well as a limestone band that terminates the top of the wall below the cornice. The front façade of the house faces west along Astor Street and is symmetrical, visually divided into three bays. In the center bay of the west façade, the limestone rises above the first floor sill line to surround the front door and leaded glass casement windows on each side. Three limestone steps rise up to the recessed front door. The oak door has a small glass light and is adorned with ornamental iron grillwork. At the sidewalk level, centered below the leaded glass windows that flank the front door, are deeply recessed, narrow basement windows.

On the second floor, the center of the west façade is visually dominated by a wood balcony that slightly projects beyond the surrounding brick façade. The balustrade features a repeating Sullivan-esque pattern of ovals and vegetative ornament, and eight Tuscan columns that support the balcony roof. Above the columns is a decorative frieze ornamented with geometric and organic designs. The low pitched copper roof that spans over the balcony features a decorative pressed copper cornice. On the third floor the center bay is recessed and features two small, closely spaced wood casement windows with limestone surrounds that are centered over the balcony and entry below. To the right and left of the center windows are narrow brick screens that hide the windows behind them. At the basement level of north and south bays of the west façade are groups of four closely spaced rectangular windows covered with decorative iron grills. Centered above the basement windows are simple rectangular double hung wood windows on first and second floors. These window openings are recessed with shallow segmented brick arches at the heads and limestone sills. On the third floor, centered above the windows below, are pairs of small, square casement windows framed in limestone trim. These windows match the third floor windows in the center bay.



3-6
West facade
of the Char-
nley-Persky
House, 2016,
Leslie Schwartz.



3-7
Balcony on the
west facade
of the Char-
nley-Persky
House, 2016,
Leslie Schwartz.

Similar to the west façade, the north façade features a group of four closely spaced rectangular windows covered with decorative iron grills on the basement level, rectangular double hung wood windows with segmented arches and limestone sills on first and second floors, and two small, square casement windows framed in limestone trim on the third floor. To the left of the third floor windows is a brick screen and to the left of the second floor window are two small rectangular windows with limestone sills. The south façade differs slightly from the north and west facades of the house. There is a sunken service courtyard on the south side of the house. The lower sections of the walls surrounding the courtyard are rough faced limestone masonry. Above the limestone base, the walls are Chicago common brick with a coped limestone cap on top. The ground in the courtyard is covered in stone pavers. The south façade of the Charnley-Persky House is Chicago common brick at the basement level. A limestone string course separates the common brick lower wall from the upper Roman brick wall. The dominant feature on the south façade is a projecting bay. A chimney rises at the center of the bay. On the west side of the chimney, on the basement level, is a wood door that leads into the tour center (former kitchen). On the opposite side is a double hung wood window. On the first and second floor the chimney is flanked by double hung wood windows recessed in the wall with segmented brick arches and limestone sills and on the third floor are pairs of small rectangular wood casement windows framed in limestone surrounds. East of the bay, the south façade has a double hung wood window on the first floor, two small wood casement windows on the second floor, and a small rectangular casement window on the third floor. The limestone base, which runs from the sidewalk to the sill of the windows on the first floor, covers the base on the north, west, and south facades, where the limestone transitions into the service courtyard entrance.

The entire east façade, which was built as a party wall, is clad in Chicago common brick. There is a single wood door with two wire reinforced glass lights at ground level that leads into the servants stair. There is also one double hung wood window with textured glass near the south end of the east façade at the second floor and a metal vent at the third floor. The house is crowned by a low pitched copper roof with a decorative pressed copper cornice on the north, west, and south sides and a parapet wall on the east side. At the center of the roof is a raised skylight with glass lights and a metal frame. Four brick chimneys project above the roof.



3-8

Left: North facade of the Charnley-Persky House, 2016, Leslie Schwartz.



3-9

Right: South facade of the Charnley-Persky House, 2016, Leslie Schwartz.



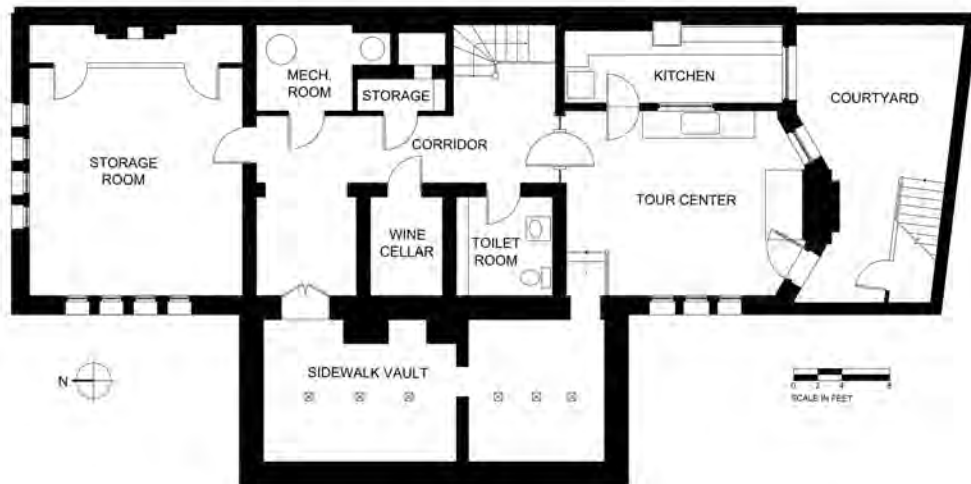
3-10

East facade of the Charnley-Persky House, 2016, Leslie Schwartz.

Building Interior

The Charnley-Persky House contains four levels including a basement, first floor, second floor, and third floor. The house has a simple floor plan with the three floors above grade arranged around a central stair hall that rises three stories. The primary rooms of the house are located to the north and south of the hall.

3-11
Charnley-Persky
House Base-
ment Plan,
2016.



Basement

The basement has a central corridor which provides access to rooms on each side. The central corridor has terracotta colored ceramic tile flooring, beige colored painted plaster walls and painted wood trim, and a white painted plaster ceiling with a textured finish. On the southeast side of the corridor is a brown painted wood staircase that leads up to the first floor. On each side of the corridor are painted wood paneled doors that access a toilet room and wine cellar on the west and a mechanical room and broom closet on the east. At the northwest end of the corridor is a small alcove. On the west wall of the alcove is a narrow casement window. Below the window is a wood double door that accesses the sidewalk vault. The vault has a poured concrete slab floor, stone foundation walls, and concrete ceiling.

On the north end of the corridor is a wood door with textured glass panel that opens into a storage room with vinyl tile flooring, beige colored painted plaster walls, and a painted plaster ceiling with textured finish. Groupings of four rectangular casement windows are located on both the north and west walls of the room. On the east wall are two painted wood doors that access an electrical room. The stone foundation wall is exposed in this room.

On the south side of the basement are the tour center and kitchen. What is now the tour center was the original kitchen for the Charnley-Persky House. Similar to the corridor, the tour center has terracotta colored ceramic tile flooring, beige painted plaster walls and painted wood trim, and a white painted plaster ceiling with a textured finish. A painted wood door with a textured glass panel is located on the north wall. The door is flanked by textured glass sidelights. In the northwest corner of the room is one step that leads down to a door that accesses the sidewalk vault. Near the top of the west wall are four rectangular casement windows. Centered on the south wall is the original metal stove hood, which is flanked on the west by a wood door with textured glass panels that accesses the courtyard and on the east by a double-hung wood framed window. On the east wall is the original sink with marble counter. Above the sink are clear glass windows with painted wood frames.

A doorway on the east wall leads into the kitchen. The kitchen has the same tile floors as the Tour Center, beige plaster walls that are scored to look like tile, and a painted plaster ceiling. Along the east wall are built-in upper and lower cabinets. The wood cabinets are painted beige and the upper cabinets have clear glass panels. The counter is white laminate. There is a dumbwaiter in the east wall that extends up to the butler's pantry on the first floor.

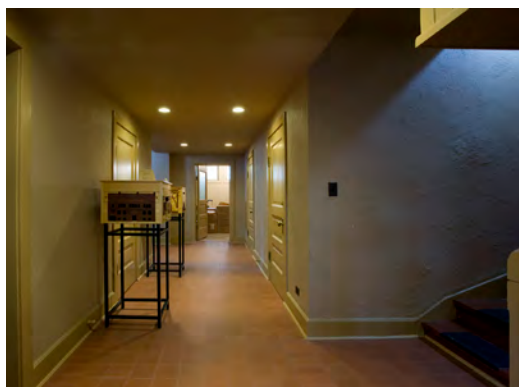


3-12

Left: Basement Tour Center, 2016, Leslie Schwartz.

3-13

Right: Basement Kitchen, 2016, Leslie Schwartz.



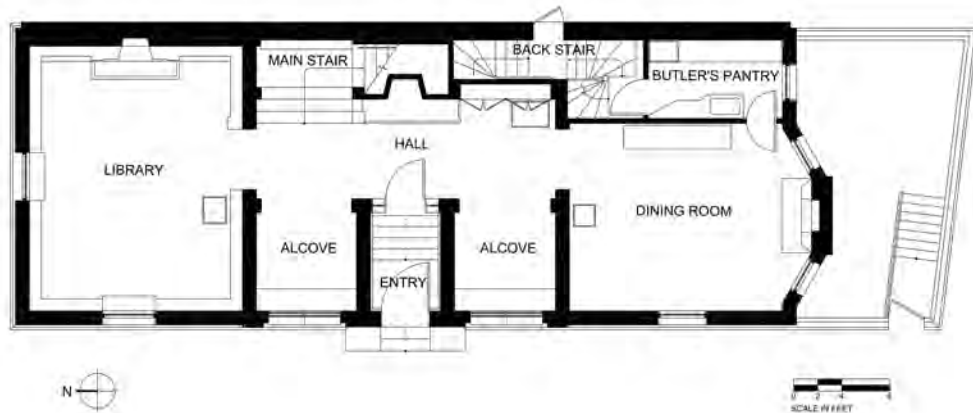
3-14

Left: Basement Corridor looking north, 2016, Leslie Schwartz.

3-15

Right: Sidewalk vault, 2016, Leslie Schwartz.

3-16
Charnley-Persky
House First Floor
Plan, 2016.



First Floor

Upon entering through the front door of the Charnley-Persky House, visitors arrive in a small vestibule with a patterned tile floor, wood steps, wood paneled walls with beaded battens, and a painted plaster ceiling with textured finish. A decorative wrought iron pendant light with frosted glass globe hangs from the center of the ceiling. A large wood paneled door with decorative leaded glass sidelights and transom opens into the first floor hall. The hall is the main circulation space in the house and connects the primary living spaces on the first floor. The center space of the hall is open three floors to a skylight that filters light down to the first floor of the house. The hall has oak flooring, painted plaster walls and ceilings with textured finishes, and stained oak trim and moldings. Centered on the east wall is a Roman mosaic tile fireplace surround with marble trim. On the north side of the fireplace are three oak steps and an oak newel post with carved Sullivan ornament. The steps lead up through an archway to a landing. The stairs continue up behind the east wall to the second floor. On south side of the fireplace is an arched niche with oak cabinets. The cabinet doors have decoratively carved ornament with leaf motifs. On the opposite wall, flanking the front door, are archways that open into alcoves with built-in wood benches and leaded glass casement windows.

An arched opening on the north side of the Hall leads into the library (living room). The library has oak flooring, painted plaster walls and ceilings with textured finishes, and stained oak trim and moldings. Built-in oak bookcases and cabinets line the lower halves of the walls in the room. Centered on the north and west walls are double hung wood windows. Below each window is an oak window seat with drawer. On the east wall is a marble fireplace with a decorative oak mantel with carved Sullivanesque ornament and tile hearth.

On the south side of the first floor of the house is the dining room and butler's pantry. The dining room has oak flooring and painted plaster walls and ceilings with a textured finish. The millwork in the room is all mahogany. There is a wainscot with mahogany veneer panels and beaded battens on the lower part of the walls. There is a mahogany cornice around the top of the walls, as well as additional trim at the arched opening to the Hall. A built-in buffet was added along the east wall during the SOM restoration in the late 1980s. Centered on the south wall is a marble fireplace with a tile hearth and ornamental carved wood mantel with Sullivan motif. Flanking the fireplace are double hung wood windows. Another window is centered on the west wall of the dining room.

A wood paneled door on the east wall of the dining room leads into the butler's pantry, which has oak flooring, painted beadboard walls, and a painted plaster ceiling. Built-in painted wood cabinets line the walls on the east and west sides of the room. The upper cabinets have clear glass paneled doors. A metal sink with wood counter is located on the west wall. There is a double hung wood window on the south wall and a wood door on the north wall leads into the servant stair, which features winding wood stairs that lead up to the second and third floors and down to the basement. A dumbwaiter connects from the basement to the southeast corner of the butler's pantry.



3-17

Left: Fireplace in the first floor Hall, 2016, Leslie Schwartz.



3-18

Right: Alcove off of first floor Hall, 2016, Leslie Schwartz.



3-19

Left: Living Room/Library, 2016, Leslie Schwartz.



3-20

Right: Dining Room, 2016, Leslie Schwartz.

3-21
Left: First floor
Hall looking
north, 2016, Les-
lie Schwartz.



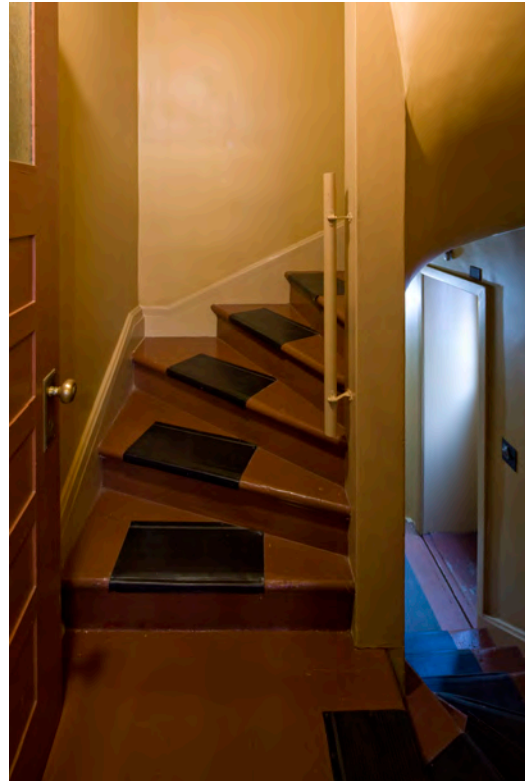
3-22
Right: Butler's
Pantry, 2016,
Leslie Schwartz.

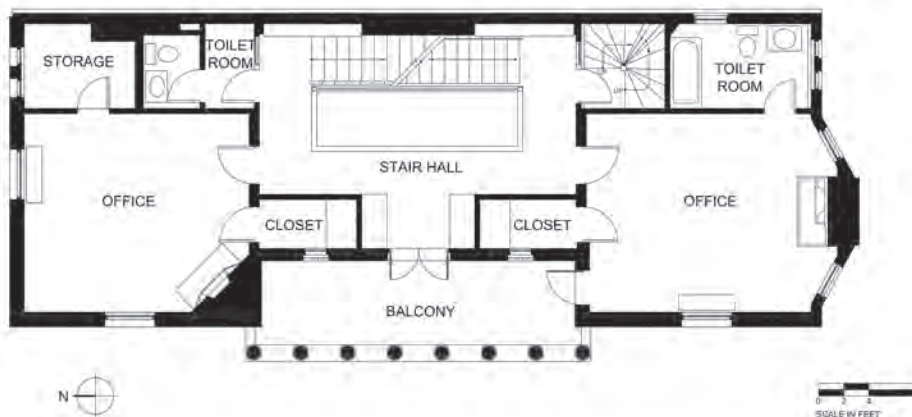


3-23
Left: Char-
nley-Persky
House main-
door, 2016,
Leslie Schwartz.



3-24
Right: Servant
Stair at first floor,
2016, Leslie
Schwartz.





3-25
Charnley-Persky
House Second
Floor Plan, 2016.

Second Floor

Similar to the first floor, the second floor is laid out around the main Stair Hall. The second floor stair hall has oak floors, painted plaster walls and ceilings with textured finishes, and stained oak trim and moldings. Rectangular niches framed in wood trim are located on the east wall and feature informational bulletin boards. The floor opening at the center of hall is lined with an oak railing with decorative panels. The stairs to the third floor rise along the east wall behind a screen of closely spaced, tapered wood spindles. Across from the stair, centered on the west wall, is a leaded glass double door that opens onto the balcony. Flanking the door are built-in oak benches. Wood paneled doors with beaded trim access an office and toilet room on the north side of the hall and another office and servant stair on the south side. Next to the doors to the toilet room and servant stair are oak-framed, frosted glass interior windows.

The north office has carpeted floors, painted plaster walls and ceiling, and painted wood trim and moldings. There is a fireplace in the southwest corner of the room with a wood mantel and tile face and hearth. Double hung painted wood windows are centered on the west and north walls of the room. On the south wall is a painted wood door that accesses a small closet. On the east wall another door accesses a storage/copy room. The room has built-in cabinets and drawers on the south wall and two small casement windows on the north wall.

The south office also has carpeted floors, painted plaster walls and ceiling, and painted wood trim and moldings. The room features a fireplace with a yellow tile face and hearth and wood mantel. At the right side of the fireplace is a built-in mirror with an oak frame. Double hung wood windows are located to the right and left of the fireplace as well as centered on the west wall of the room. A leaded

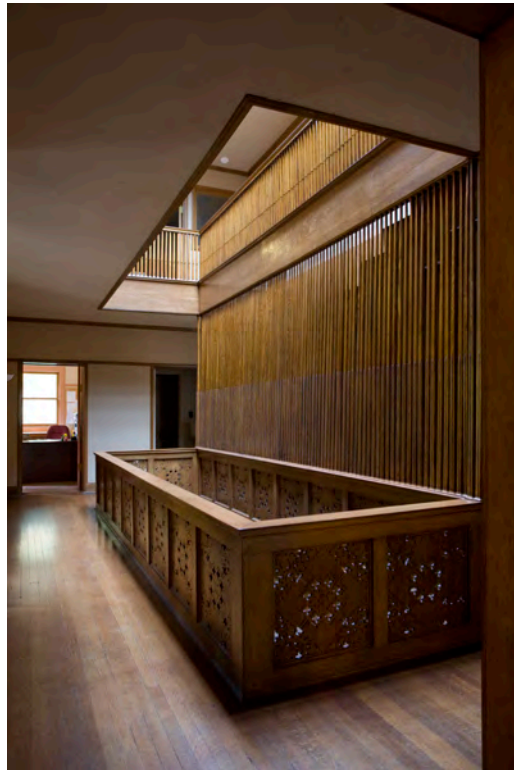
glass door with clear glass storm door is located in the northwest corner of the room and opens out to the balcony. A painted wood paneled door at the south end of the east wall accesses a bathroom. The original bathroom finishes and fixtures are largely intact including the hexagonal tile flooring, glazed white subway tile on the walls, mirrored medicine cabinet, and white porcelain sink, toilet, and bathtub. Two casement windows with a painted wood frame are located on the south wall.

3-26

Left: Second floor stair hall looking north, 2016, Leslie Schwartz.

3-27

Right: Second floor stair hall looking south, 2016, Leslie Schwartz.



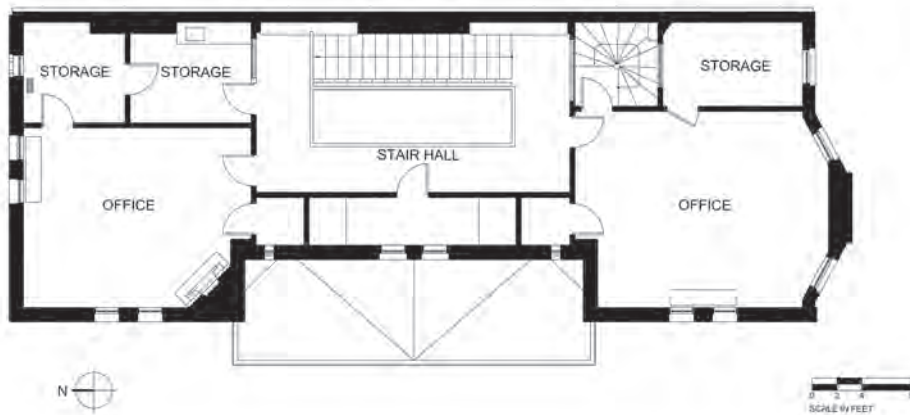
3-28

Left: Second floor south office, 2016, Leslie Schwartz.

3-29

Right: Second floor bathroom, 2016, Leslie Schwartz.





3-30
Charnley-Persky House Third
Floor Plan, 2016.

Third Floor

The third floor, like the first and second floors, is arranged around a central stair hall. The third floor hall has oak floors, painted plaster walls and ceilings with textured finishes, and stained oak trim and moldings. Rectangular niches framed in wood trim are located on the east wall and feature informational bulletin boards. The floor opening is surrounded with a wood railing with tapered wood spindles. A paneled wood door on the west wall accesses a linen closet with built-in wood cabinets and drawers. Doors on the north wall access an office and a small storage room. Next to the storage room door is a frosted glass window in a wood frame. A similar window is located across the hall on the south wall. Also on the south wall is a wood paneled door that opens into another office. The center of the third floor hall is capped with a wood framed, translucent glass skylight.

Both the north and south offices have carpeted floors, painted plaster walls and ceilings, and painted wood trim and moldings. In both rooms the tops of the perimeter walls are coved. There is a fireplace in the southwest corner of the north office with a glazed red tile face and hearth, stained oak mantel, and decorative sconces. To the left of the fireplace is a door that accesses a small closet. There are four small, rectangular casement windows in the north office – two on the north wall and two on the west wall. On the east wall of the north office is a painted wood door that leads into a storage room with painted beadboard walls and a small casement window with brick screen. Like the north office, the south office has four rectangular casement windows – two on the west wall and two on the south wall. Painted wood doors on the east wall access the servant stair and a small storage room respectively. The storage room has a small casement window on the south wall and a fixed window that looks into the servant stair on the north wall.

3-31

Left: Third floor stair hall looking north, 2016, Leslie Schwartz.



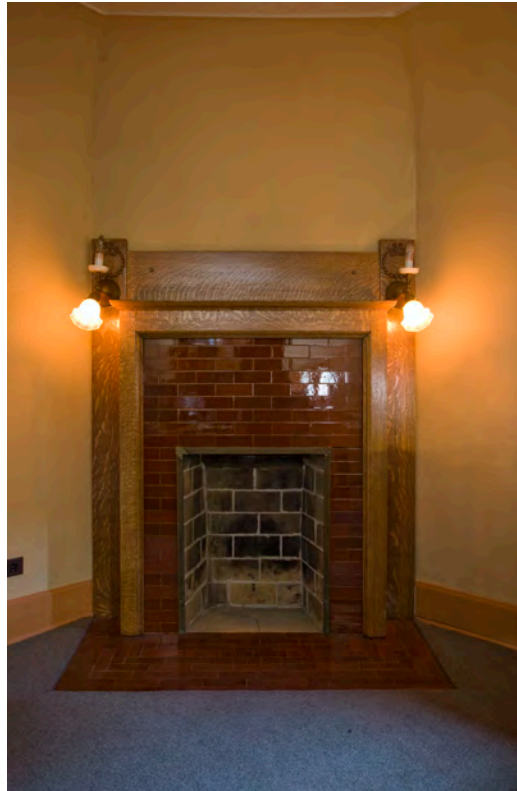
3-32

Right: Third floor south office, 2016, Leslie Schwartz.



3-33

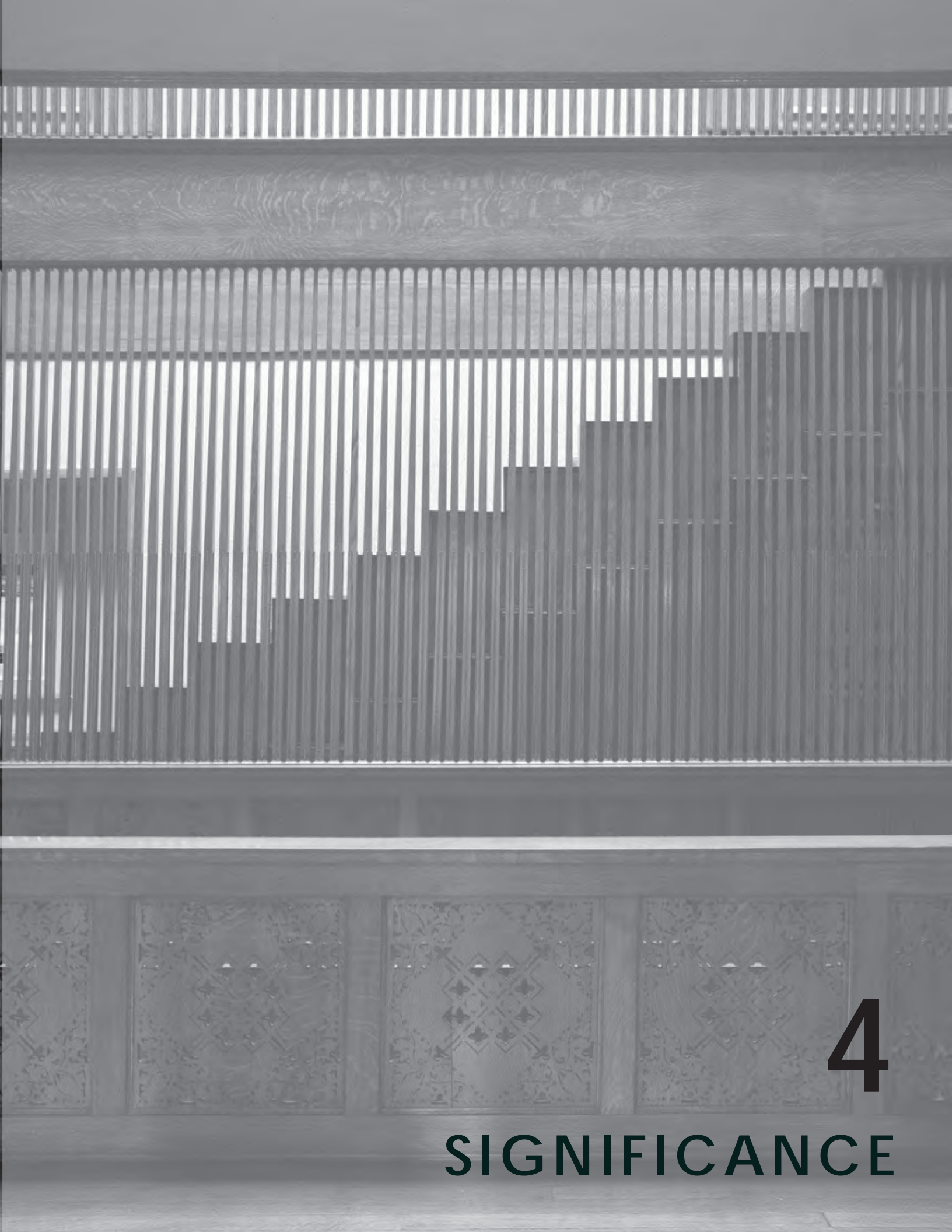
Left: Fireplace in third floor north office, 2016, Leslie Schwartz.



3-34

Right: Servant stair at third floor, 2016, Leslie Schwartz.





4

SIGNIFICANCE

HISTORIC SIGNIFICANCE

Previous Determinations of Significance

The Charnley-Persky House has been determined to have historical and architectural significance at both the local and national levels. Although its significance was established nationally well before the mid-twentieth century, the house was first recognized in 1970, when it was added to the National Register of Historic Places for its architectural significance under Criterion C. According to Criterion C, "Properties may be eligible for the National Register if they 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." The Charnley-Persky House is certainly distinctive in its architecture and possesses a high artistic value, a result of the genius of master architects Louis Sullivan and Frank Lloyd Wright.

In 1960, the Charnley House was first designated a landmark by the City of Chicago; however, this designation did not offer any real legal protection. In 1972, the house was again designated a city landmark, this time with legal protection that required review by the City of Chicago Landmarks Commission prior to any proposed work on the exterior of the house. The landmarks report cited previous studies and writings about the house that emphasized its significance in the development of modern architecture and as a distinctive work of Frank Lloyd Wright while employed by Adler and Sullivan.

In addition to the protection provided by the City of Chicago Landmarks Commission, the exterior facade of the house is protected by an easement held by Landmarks Illinois. Any proposed work on the exterior must be reviewed and approved by a representative of Landmarks Illinois. Also, closing documents for the most recent sale of the house in 1995 stipulate that it can never be sold.

The house's significance was further elevated in 1998 when it was designated a National Historic Landmark (NHL). The house was nominated under NHL Criterion 4, which includes:

"Properties that embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for a study of a period, style, or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction."

In the statement of significance, the authors of the National Historic Landmark nomination state that the Charnley-Persky House “has been widely recognized for over half a century as an important work nationally and internationally in the history of modern architecture,” and that the house is important as a “pivotal work in the transition from the self-conscious search for new forms of expression that characterized many efforts in design during the nineteenth century to the more fundamental breaks with the past championed by avant-garde modernists beginning in the early twentieth century.” The Charnley-Persky House is also “one of the few major residential commissions realized by Louis Sullivan,” and “a benchmark in the early development of Frank Lloyd Wright.” The authors continue by elaborating on the importance of the Charnley-Persky House in the careers of both Sullivan and Wright, and by providing contextual comparisons to demonstrate the distinctiveness and exceptional architectural significance of the house.

In the National Historic Landmark nomination, the period of significance for the Charnley-Persky House was determined to be 1891-92, the period during which the house was designed and constructed. This period was likely chosen due to the house’s significance deriving solely from its architecture and association with master architects Louis Sullivan and Frank Lloyd Wright.



4-1
Looking south-east at the Charnley-Persky House, 2016, Leslie Schwartz.

Modifications Over Time

There have been many changes to the Charnley-Persky House since it was constructed in 1892. Many of these changes were the result of major additions and renovations to the house. The first known major renovation came in 1927, when then owner, James Waller, constructed an addition to the south side of the house. The addition included a new kitchen on the first floor, a bedroom on the second floor, and two bedrooms on the third floor. There were also two small recessed porches on the first and second floors. The second floor balcony on the west side of the house was glazed around the same time the addition was completed. While fixtures and finishes were updated over time to suit the needs of the owners, no major restoration work occurred until 1979, when the balcony on the west façade was restored. The most significant modifications occurred in 1986 with a major restoration undertaken by Skidmore Owings and Merrill. The work included the removal of the 1927 addition as well as exterior masonry restoration, replacement of the roof and skylight, and interior renovations. Additional work was completed in 2001 and included the complete reconstruction of the vaulted sidewalk, installation of storm doors at the balcony, repair of leaking downspouts, courtyard and foundation wall repairs, tuckpointing of the east and west facades, grading the foundation walls and installing drainage systems to move storm water away from the house.

The most recent set of major repairs was completed in 2014 following a series of flash floods inside the house caused by a blocked connection to the sewer in the street. Exterior repairs were made to the sewer pipe in the north parkway. Interior repairs were made to the first floor library ceiling, floor boards, and wood molding. In the basement all the walls were replastered and painted and the tile floor was replaced with quarry tile.

Integrity

While there have been some substantial changes to the Charnley-Persky House over the years, it still possesses the key elements of integrity used by the National Park Service when evaluating historic significance. These include integrity of location, design, setting, materials, workmanship, feeling, and association. The Charnley-Persky House is still in the same location it was when constructed in 1892 and it still retains the original plan and form. While there has been a large amount of development in the Gold Coast in the years following its construction, the Charnley-Persky House still retains its relationship to the surrounding neighborhood. The site also retains a large amount of original material including the exterior stone and brick walls, interior wood flooring, doors, decorative millwork, and fireplaces, as well as its visual evidence of workmanship in construction of the building elements. The integrity of feeling and association also remain through tours and special programs for the general public. The house is used as the international

headquarters for the Society of Architectural Historians as well as for tours, student seminars, lectures, and special events throughout the year. Its continued use for tours, programs, and as a headquarters for a non-profit organization adds to the vitality of the Charnley-Persky House, facilitates the sustainability of the house into the future, and enhances the historic significance of this extraordinary building.



4-2

Looking south-east at the Charnley-Persky House, ca. 1892, Northwest Builder.



4-3

Looking south-east at the Charnley-Persky House, ca. 1950, Gilman Lane Collection, Oak Park Library.

VALUES

Value Based Analysis of Significance

The significance of the Charnley-Persky House as a cultural heritage site is derived through the identification and understanding of the values it embodies. The values are the attributes or qualities present in, or represented by, the physical aspects of the house and its broader setting. There are also intangible heritage values present in the form of traditions, spirit and continued uses of the place as well as through the people who have had a long association with the house. Understanding these values also helps to define the appropriate preservation treatments for all parts of the house. Any intervention must be done in a manner that respects and strengthens the values rather than risk diminishing them. While it is difficult not to be swayed by the importance of some values over others, to fully understand a building's significance it is desirable to try to include as many of the values as possible so that all aspects of a building's meaning can have voice. It should also be acknowledged that when taking into account all the values there will inevitably be conflicts. This will be especially true when it comes to making decisions about treatments. Choices will need to be made which will give primacy of some values over others. The Charnley-Persky House embodies many different values that include historical, aesthetic, experiential, social, and economic values. The following is a summary of these values:

Historical and Aesthetic Values

Historical and aesthetic values are the ones that most typically dominate the definition of any cultural heritage site. Due to the association with architects Louis Sullivan and Frank Lloyd Wright this is strongly apparent at the Charnley-Persky House. Some of these attributes include:

- Masterwork of Architecture by Sullivan and Wright - The Charnley-Persky House is recognized internationally as a significant work of Louis Sullivan and Frank Lloyd Wright.
- Work of Art - The Charnley-Persky House's distinctive design creates an aesthetic impact that goes beyond its utilitarian function and elevates it to a "Work of Art".
- Local and National Historic Significance - The Charnley-Persky House is both a City of Chicago Landmark and a National Historic Landmark.

- Resource for Academic Study - The Charnley-Persky House is a resource for historians and students of architecture and design to study and research the works of Louis Sullivan and Frank Lloyd Wright.
- Decorative Elements - The Charnley-Persky House is richly embellished with Sullivanesque and Wrightian ornament.
- Historic Residence - The Charnley-Persky House was the home to the Charnley and Waller families among others. The house helps to tell their stories.

Experiential Values

The Charnley-Persky House is a living site. Unlike many cultural heritage sites, it is not just a stagnant museum piece locked in time. Although there are over 2,000 visitors a year that take traditional historic house tours, the Charnley-Persky House is also a place where people continue to work and operate the Society of Architectural Historians (SAH). The fusion of these activities with the physical built environment creates a unique sense of place that is the Charnley-Persky House. Some of the attributes that help demonstrate this sense of place include:

- Education – The Charnley-Persky House provides a unique opportunity for professionals and students to learn through educational programs sponsored by SAH.
- Architectural Study – The Charnley-Persky House serves as a study house for scholars researching Frank Lloyd Wright's and Louis Sullivan's body of work.
- Tourism – The Charnley-Persky House is a worldwide destination for over 2,000 visitors a year. Visitors experience the progression through space that Sullivan and Wright created. They also learn about the history of the house, the Charnley family, and subsequent owners.
- Events – Programs such as lectures and receptions in the house allow guests to experience the Charnley-Persky House as an active participant.
- Quality of Natural Lighting – The skylight in the stair hall allows light to filter into the center of the house with patterns of light changing throughout the day and seasons of the year.
- Movement Through Space – The path up the stairs is a dynamic and spatial experience for visitors to the house.

Economic Values

Although not always thought about when defining the significance of a heritage site, economic values are always present. Sometimes these are relegated to be of minor importance but they can also dominate a discussion about a site's long-term preservation. Some aspects that define the economic values of the Charnley-Persky include:

- Property Value – The Charnley-Persky House, which was purchased by SAH in 1995 for \$1.65 million, would have an estimated value of \$3.17 million in 2017 if SAH were able to sell it (according to Zillow on March 15, 2017).
- Revenue from Tourism, Programs and Sales – The Charnley-Persky House generates revenue through tours, programs, and retail. Additionally, area restaurants, bars, coffee shops, hotels, caterers, and other businesses benefit from tourism relating to the house.
- Creates Employment – SAH employs 7 full-time staff members. Many others volunteer their time to giving tours, program planning, editing the Journal of the Society of Architectural Historians, and many other tasks that allow SAH to function efficiently.
- The Charnley-Persky House as a Marketing Tool – Marketing is an important part of the site focusing on tourism and building support for SAH as the steward of this internationally significant architectural site.

4-4

Left: First floor hall looking at the stair, 2016, Leslie Schwatz.



4-5

Right: Second floor stair hall, 2016, Leslie Schwatz.



PERIOD OF SIGNIFICANCE

Based on a careful analysis of the history, embedded values and physical integrity of the site, the period of significance for the Charnley-Persky House has been determined to be the period of its initial design and construction, 1891 – 1892. This period of significance was previously established in the National Historic Landmark Nomination, which was completed in 1998, and based on the house's architectural significance.

While much of the Charnley-Persky House is currently in stable and usable condition, there are a number of important issues with fundamental aspects of the building – such as the roof and mechanical systems – that need to be addressed in the immediate or near future. As this work is planned and executed it should be done in a manner that maintains the integrity of the house and respects the period of significance.

Conservation Principles

To help guide preservation and restoration decisions, the following conservation principles are proposed as the basis for developing treatments and modifications:

- Preserve original materials and elements still existing.
- Evaluate those modifications made over time that demonstrate respect for the historic significance, integrity and values.
- For values based assessment of significance for evaluating and planning treatments consider the embodied values associated with the house and seek to find the best balance that meets the preservation goals.
- Encourage continued use that accommodates changes over time. The Charnley-Persky House is a living site and is to maintain its use as a place for working and learning.
- Reverse alterations that compromise the historic character and significance of the Charnley-Persky House.

PRESERVATION ZONES

As an internationally significant work of architecture by Louis Sullivan and Frank Lloyd Wright, the Charnley-Persky House is to be preserved and enhanced to better express the important values of the house. In order to help guide the preservation goals for the house, Preservation Zoning has been developed that identifies zones based on the level of material integrity, relative importance of the individual spaces and elements, as well as their contribution to enhancing the overall understanding of the house.

In determining the assignment of preservation zones for the various spaces of the Charnley-Persky House, primary and secondary source research and onsite investigation of the house were utilized. Through research and investigation of the house and surrounding context, an understanding of construction chronology and modifications was developed that helped to categorize and prioritize the various spaces of the house and ultimately place these spaces into zones based on their level of significance and integrity. Spaces still retaining a substantial amount of original material were determined to be more significant than those spaces that were modified. Zone 1 includes the most significant spaces. Zone 2 includes spaces that are slightly less significant, and Zone 3 includes spaces that have negligible significance.

Zone 1 (Primary Significance)

Spaces in Zone 1 include the formal public areas in the house. In addition, these spaces contain much of their original material as well as a high level of integrity. These spaces include:

- Exterior Facades (includes all ornament)
- Balcony
- Entry Vestibule (includes main door)
- Main Stair
- Stair Hall/Atrium (includes skylight and railings)
- Servant Stair
- Living Room
- Dining Room
- Butler's Pantry
- Second Floor Offices

Zone 2 (Secondary Significance)

Spaces in Zone 2 are non-public spaces that are not integral to the significance of the Charnley-Persky House, but still maintain some original material. These spaces include:

- Second Floor Bathrooms
- Third Floor Offices
- Tour Center
- Courtyard
- Basement Sidewalk Vault

Zone 3 (Minor Significance)

Spaces in Zone 3 were significantly renovated and contain no original material. They are generally spaces that do not add aesthetic or historic value to the house. These spaces include:

- Kitchen
- Closets
- Basement Corridor
- Basement Storage Rooms
- Basement Mechanical Room
- Basement Wine Cellar
- Basement Toilet Room
- Second & Third Floor Closets and Storage Rooms

Preservation Treatment Strategies

In order to help guide preservation and restoration decisions, the following preservation treatment strategies should be followed for each zone of significance:

- **Zone 1 (Primary Significance)**

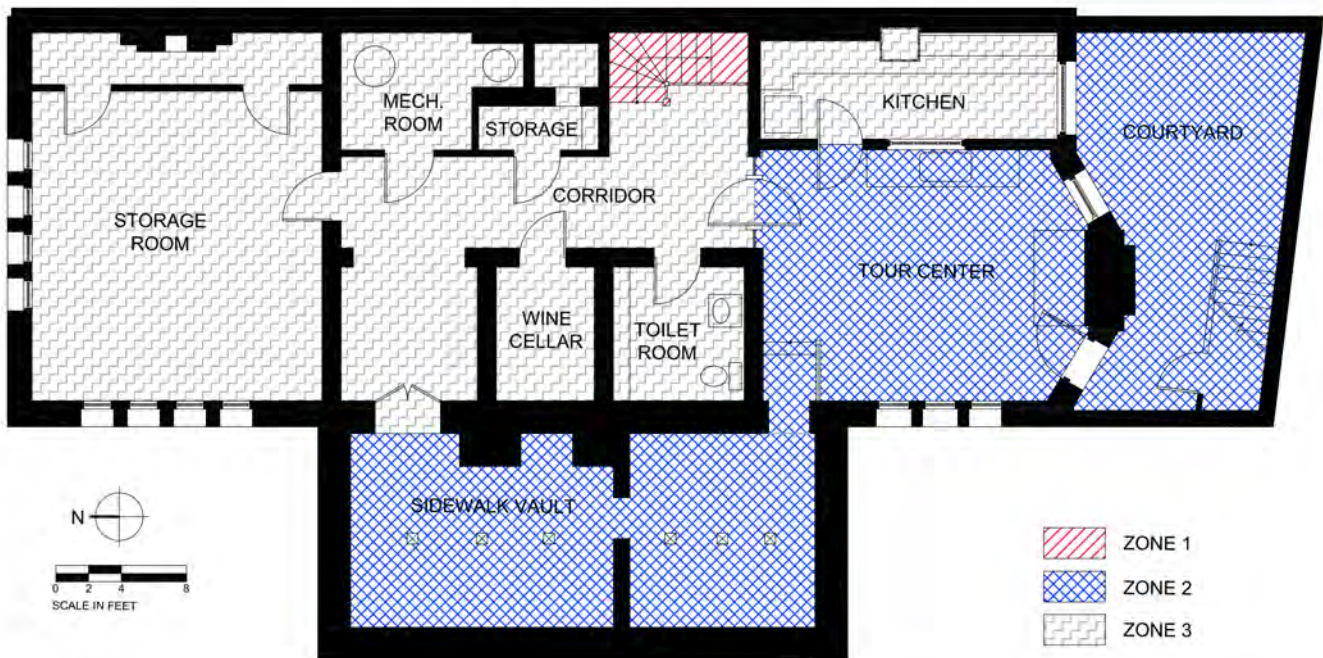
Preserve, restore, and rehabilitate building elements and spaces which contribute to the period of significance to enhance the understanding and interpretation of the house. Any intervention is to be undertaken with extreme care so not to negatively impact the house.

- **Zone 2 (Secondary Significance)**

Preserve the contributing materials and elements of spaces still present while allowing for modifications that are sympathetic to the historic character of the house.

- **Zone 3 (Minor Significance)**

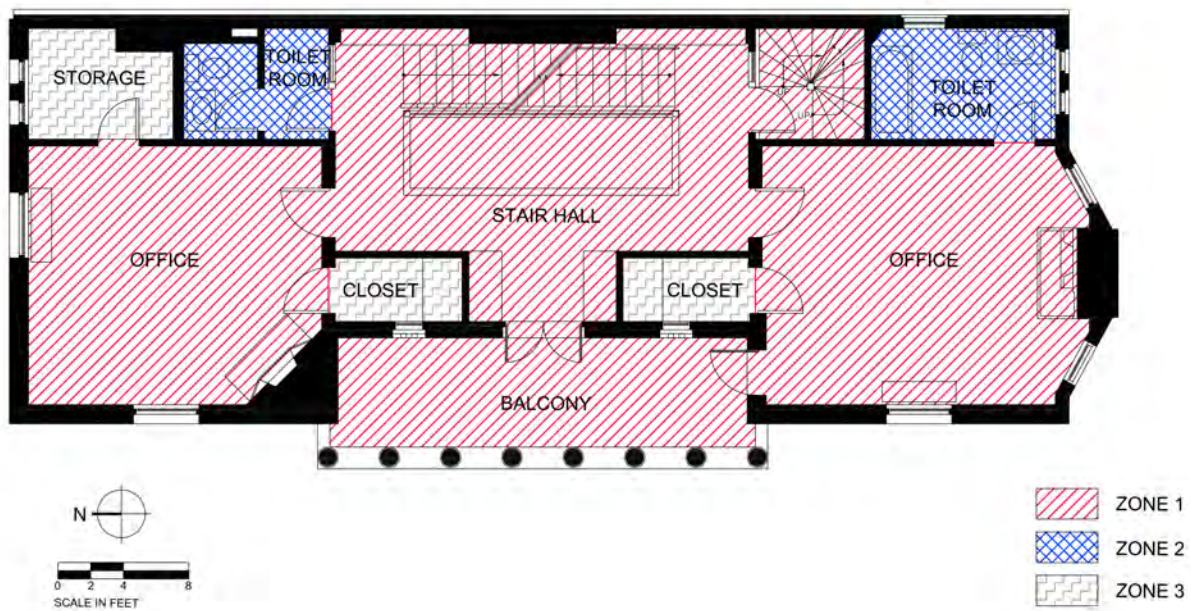
Allow for rehabilitation, modifications, and possible removal or replacement to spaces and elements that are non-contributing to accommodate programmatic needs in the house.



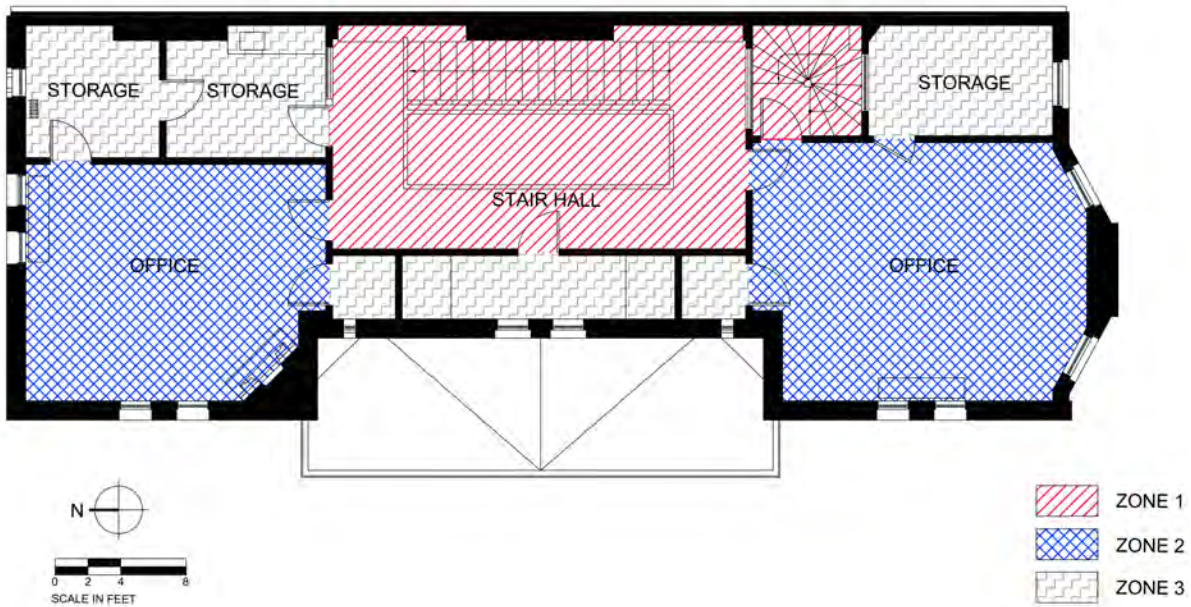
Preservation Zoning - Basement Plan



Preservation Zoning - First Floor Plan



Preservation Zoning - Second Floor Plan



Preservation Zoning - Third Floor Plan

Preservation Procedures

The following preservation procedures are based on the Secretary of the Interiors Standards for the Treatment of Historic Properties. As a National Historic Landmark, it is important that the treatments for the various components of the Charnley-Persky House adhere to the Standards. It should also be understood that building components and spaces may have different specific treatments or combinations thereof, based on level of significance, level of material integrity, current physical condition, and proposed use. The basic procedures are as follows:

- ***Use***

The Charnley-Persky House is to be used as the headquarters for SAH. Uses that require modifications to contributing materials, features, spaces and spatial relationships are discouraged.

- ***Character and Materials***

Materials, features, and spatial relationships that are from the period of significance are to be retained and preserved. The replacement, alteration or removal of intact or repairable historic materials, features, spaces, and spatial relationships that characterize the house are to be avoided.

- ***Physical Record of the Properties Time, Place and Use***

Changes that create a false sense of historical development such as adding conjectural features, or combining features that never existed together historically shall be avoided. Restoration and conservation of contributing materials and features will be physically and visually compatible with the historic materials and are to be fully documented for future research.

- ***Respect Changes That Have Acquired Historic Significance***

Changes that have acquired historic significance in their own right are to be maintained and preserved. Materials, features, spaces and finishes that are not from the period of significance are to be documented prior to their alteration or removal.

- ***Repair and Preserve Original Materials and Features***

Distinctive materials, features and construction techniques and examples of craftsmanship that characterize the Charnley-Persky House shall be preserved.

- ***Repairs of Historic Materials***

Deteriorated historic materials will be repaired rather than replaced. Repair

treatments are to use the gentlest means possible and shall not cause damage to historic materials. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the original in design, color, texture, and where possible material.

- ***Replacement and Reconstruction of Missing Features***

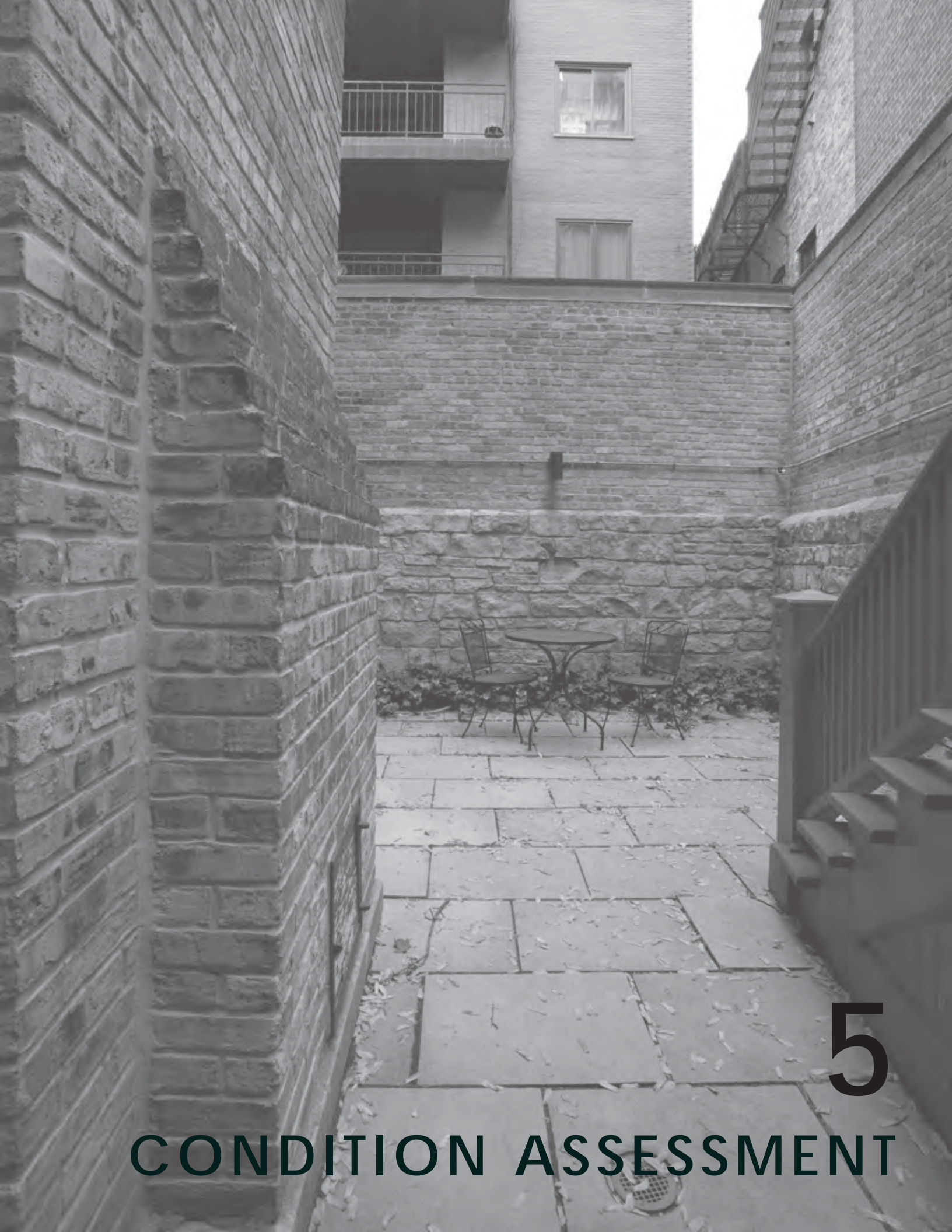
Replacement or reconstruction of missing features will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.

- ***Archeological Resources Shall Be Preserved***

Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

- ***New Additions and Alterations***

New additions and exterior alterations are to be avoided. If determined necessary, new additions are to be differentiated from the historic building and be compatible with the historic materials, features, size, scale, and proportion of the house. 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.



5

CONDITION ASSESSMENT

EXTERIOR CONDITION ASSESSMENT

5-1

West facade,
2016, Leslie
Schwartz.



West Façade

Description

The west façade is clad in gray ashlar Indiana limestone laid in a book matched pattern on either side of the entry doors up to the first floor window sills. Above this the facade is clad in yellow Roman brick in a running bond pattern except for a gray limestone string course between the second and third floor, as well as a limestone band that terminates the top of the wall below the cornice. In the center of the west façade, the limestone rises above the first floor sill line to surround an oak front door and pairs of leaded glass casement windows on each side. Three limestone steps rise up to the recessed front door. On either side of the steps are rectangular limestone plynths that rest on the sidewalk. Next to each plynth is a small, narrow window set deeply into the limestone. At the basement level are two groups of four closely spaced rectangular windows covered with decorative iron grills. Centered above the basement windows are simple rectangular double hung wood windows on the first and second floors. On the second floor, the center of the west façade features a wood balcony that slightly projects beyond the surrounding brick façade. The balcony features two leaded glass french doors on the east wall and one leaded glass door on the south wall. The east wall also features brick screens covering windows on either side of the french doors. On the third floor are three groupings of small, square casement windows grouped in pairs of two and framed in limestone trim. To the right and left of the center windows are narrow brick screens that hide the windows behind them.

Condition

Overall the west façade is in good condition. The following conditions were observed during a visual inspection of the facade:

- Limestone – There are some small cracks in the limestone, as well as locations of previous patches and repairs that do not match. The surface of the limestone is also weathered, especially at the stone steps that lead to the front door. The limestone is soiled and stained in several locations, especially at the northwest corner where dogs urinate on the wall. The limestone was sand blasted in the 1970s and in many areas the fine horizontal lines dressing the stone have eroded away. Also, in many locations the sand blasting uncovered fossils embedded in the limestone. The limestone cap on the west courtyard wall is brittle and deteriorating.
- Brick – Some areas of staining and soiling were observed. When the limestone was sand blasted in the 1970s, some of the bricks adjacent to the limestone blocks were damaged.
- Balcony – The wood balcony, which was rebuilt in the 1970s, is in fair condition. Repairs are made annually to close cracks and re-glue the wood that is delaminating due to water infiltration.
- Doors – The oak front door, which is an exact replica of the original door, is in good condition with only small nicks and scuffs. The finish is also slightly worn on both the wood and bronze hardware. The decorative wrought iron grillwork is in good condition but must be painted regularly to prevent corrosion. The replacement door to the courtyard is in good condition; however, due to exposure to weather from both sides the frame is tight causing the door to stick and be difficult to open and close.
- Windows – The leaded glass windows flanking the entry are original. The other windows were restored and retrofitted with new glazing during the 1980s SOM renovation. The second and third floor windows, which had been replaced in the 1920s, were restored to their original configuration and appearance. The windows appear to be in good condition. The finish is worn on the iron grills over the basement windows and there is some minor corrosion. The expansion of the wrought iron grills has caused limestone in the window surround to spall off in several places. The coming on the leaded glass windows is in poor condition.

5-2

Left: Organic growth on stone wall, 2016, Harboe Architects.



5-3

Right: Staining under basement windows, 2016, Harboe Architects.



5-4

Left: Previously patched crack in stone wall, 2016, Harboe Architects.



5-5

Right: Crack in stone, 2016, Harboe Architects.



5-6

Left: Main entry door and stone steps, 2016, Harboe Architects.



5-7

Right: Crack in stone step, 2016, Harboe Architects.



5-8

Left: Soiled brick under window sill, 2016, Harboe Architects.



5-9

Right: Soiled stone base at northwest corner, 2016, Harboe Architects.



Sidewalk and Parkway

Description

Abutting the west façade is an aggregate concrete sidewalk that runs from the corner on Schiller to the south end of the property line. It was completely rebuilt in 2004 and is as close a replacement to the original sidewalk as possible, with the same color and same aggregate mix. The center portion of the sidewalk extends all the way from the foundation to the curb and exactly mirrors the limestone that surrounds the front door and double windows and extends from the bottom of the balcony to the sidewalk level. Because this design feature was intentional, it was rebuilt in 2004 to its original dimensions. There are two metal “man hole” covers in this section of the sidewalk that originally were removed when coal was delivered to the coal vault below, one pile of coal for the kitchen and one for the furnace. The coal chutes were not replaced when the sidewalk was rebuilt, but the decision was made to include the metal covers so that piece of the house's history would not be lost.

There are two parkway planting areas to the north and south of the central entryway, adjacent to the curb. They are enclosed in wrought iron fences that were constructed and installed in 2004. Their design is a variation on the wrought iron grills covering the basement windows directly to the east of them. The parkway areas are planted with perennials and annuals that would have been popular in the 1890s including fiddlehead ferns, hosta, day lilies, hydrangea and groundcover such as pachysandra. Each parkway area contains a tree—the north has an American elm planted in 2014 following sewer excavation; the south has a Norway maple which was planted by the city sometime after 1988.

Condition

The sidewalk is in generally good condition. One patch of concrete has disintegrated near the north parkway area, leaving a shallow hole that should be filled. The sidewalk connecting to the wheel chair ramps on the corner of Astor and Schiller are cracked and are likely to need repair after future weathering. The south “man hole” cover is not properly attached and should be screwed in place better. There is a saw blade cut in the center of the sidewalk near the curb where People's Gas Company tried to do some exploratory work. It should be filled to avoid water freezing in the crack and causing sidewalk deterioration.

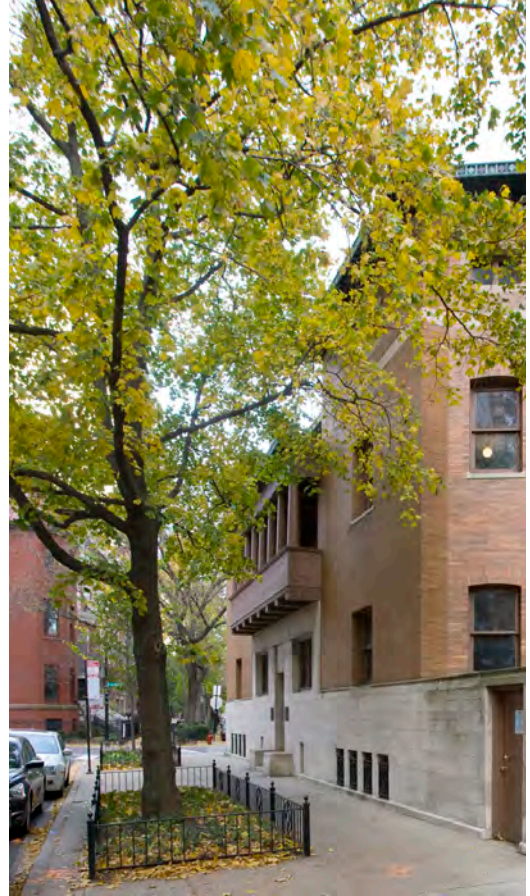
5-10

Left: Looking south at sidewalk and parkway planters in front of the house on Astor Street, 2016, Leslie Schwartz.



5-11

Right: Looking north at sidewalk and parkway planters in front of the house on Astor Street, 2016, Leslie Schwartz.



5-12

North facade, 2016, Harboe Architects.



North Façade

Description

Similar to the west façade, the north façade is clad in gray ashlar limestone laid in a random pattern up to the first floor window sills and yellow Roman brick in a running bond pattern above. At the basement level is a group of four closely spaced rectangular windows covered with decorative iron grills. Centered above the basement windows are simple rectangular double hung wood windows on the first and second floors. On the second floor are also two small windows to the east of the larger double hung window. On the third floor are two small, square casement windows framed in limestone trim. To the east of the windows is a brick screen that hides a window behind.

Condition

Overall the north façade is in good condition. The following conditions were observed during a visual inspection of the facade:

- Limestone – There are some small cracks in the limestone, as well as locations of previous patches and repairs that do not match. The surface of the limestone is also worn from previous sandblasting and soiled in several locations.
- Brick – The brick appears to be in good condition with some areas of staining and soiling observed. There is some damage at areas near the limestone from previous sandblasting.
- Windows – The other windows were restored and retrofitted with new glazing during the 1980s SOM renovation. The second and third floor windows, which had been replaced in the 1920s, were restored to their original configuration and appearance. The windows appear to be in good condition. The finish is worn on the iron grills over the basement windows and there is some minor corrosion. The expansion of the wrought iron grills has caused some limestone in the window surrounds to spall.

5-13

Left: Soiled stone string-course, 2016, Harboe Architects.



5-14

Right: Soiled stone string-course and window sill, 2016, Harboe Architects.

5-15

Left: Staining on brick under window sill, 2016, Harboe Architects.



5-16

Right: Basement windows with iron grills, 2016, Harboe Architects.



5-17

Left: Corrosion on iron grill, 2016, Harboe Architects.



5-18

Right: Non-matching stone patches, 2016, Harboe Architects.



South Façade

Description

The south façade is clad in Chicago common brick at the basement level. A limestone string course separates the common brick lower wall from the upper Roman brick wall. The dominant feature on the south façade is a projecting bay. At the center of the bay on the basement level the brick wall slightly protrudes and there is a stove ash removal panel that is now covered with plywood. There is a wood door on the west side of the bay and on the opposite side is a double hung wood window. To the west of the window are bricked in remnants of what were windows or doors for ice delivery. On the first and second floors are double hung wood windows recessed in the wall with segmented brick arches and limestone sills and on the third floor are small rectangular wood casement windows framed in limestone surrounds. East of the bay, the south façade has a double hung wood window on the first floor, two small wood casement windows on the second floor, and a small rectangular casement window on the third floor. There is a sunken courtyard on the south side of the house. The lower sections of the walls surrounding



5-19

South facade,
2016, Harboe
Architects.

the courtyard are rough faced limestone masonry. Above the limestone base, the walls are Chicago common brick with a coped limestone cap on top. The ground in the courtyard is covered in stone pavers. A flight of painted wooden stairs lead from the sidewalk level to the basement level. The south facade and courtyard were completely rebuilt in the late 1980s during the SOM restoration.

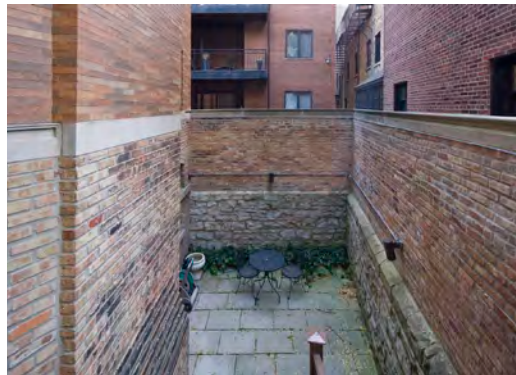
Condition

Overall the south façade is in good condition. Because the south facade was completely rebuilt in the SOM restoration, many of the materials and elements are only approximately thirty years old. The following conditions were observed during a visual inspection of the facade:

- Limestone – There are some small cracks in the limestone, as well as locations of previous patches, repairs, and alterations such as the removal of at least one window. The surface of the limestone is also weathered and soiled in several locations. There is some organic growth on the courtyard walls. The courtyard wall tend to absorb a great amount of moisture. This has resulted in the wall having to be rebuilt two times in the last twenty years.
- Brick – Both the Chicago common brick and Roman brick appear to be in good condition with some areas of staining and soiling observed. There is also some efflorescence on the common brick on the south wall.
- Door – The door is in good condition with only small nicks and scuffs. The finish is also slightly worn on the bronze hardware.
- Windows – The windows appear to be in good condition. The paint finish is slightly worn and cracked in some locations.
- Stairs - The painted wood stairs are in good condition.

5-20

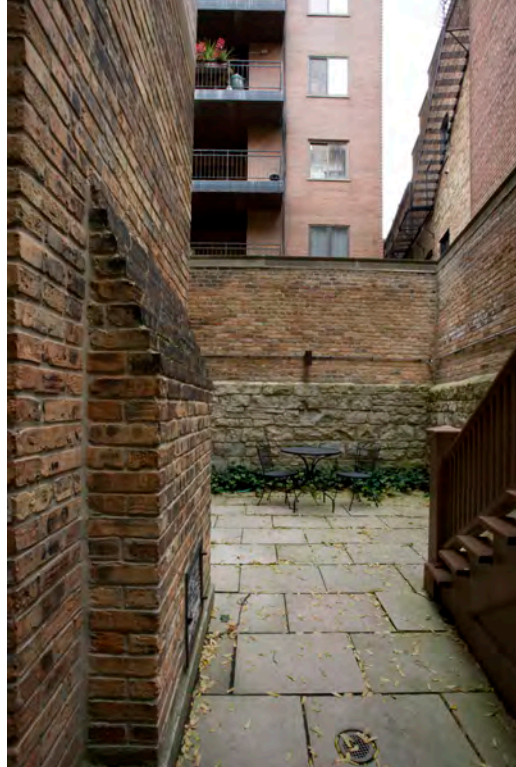
Left: Courtyard on south side of the house, 2016, Leslie Schwartz.



5-21

Right: Partial south facade and top of courtyard wall, 2016, Harboe Architects.





5-22

Left: Looking up at south facade from the driveway, 2016, Harboe Architects.

5-23

Right: Courtyard looking east, 2016, Leslie Schwartz.

East Façade

Description

The east façade is clad in Chicago common brick. There is a single wood door with two wire reinforced glass lights at ground level that leads into the servant's stair, which was installed during the 1980s SOM renovation. There is also one double hung wood window with textured glass from the 1920s renovation near the south end of the east façade at the second floor, as well as two aluminum vents on the second floor and another at the third floor. The door and window are additions from the 1920s renovation. Originally the common brick wall was a completely blank party wall.

Condition

Overall the east façade is in good condition. The following conditions were observed during a visual inspection of the facade:

- Brick – The brick is generally in good condition. There are multiple stains from water runoff from the copper flashing. There is also a missing brick twenty-two courses above the door.
- Door – The door is in good condition with only small nicks and scuffs. The finish is also slightly worn on the bronze hardware.
- Window – The window appears to be in good condition.
- Copper flashing – The metal flashing at the second floor appears to be in good condition. It is causing staining on the brick.
- Aluminum vents – There is a metal vent near ground level that is damaged.

5-24
East facade,
2016, Leslie
Schwartz.





5-25
Left: Northeast corner of the house, 2016, Harboe Architects.



5-26
Right: Partial east facade, 2016, Harboe Architects.



5-27
Left: Soiled brick at the base of the wall, 2016, Harboe Architects.



5-28
Right: Staining on the brick wall, 2016, Harboe Architects.



5-29
Left: Damaged metal vent on east facade, 2016, Harboe Architects.



5-30
Right: Window on east facade, 2016, Harboe Architects.



5-31
Left: Brick courtyard wall, 2016, Harboe Architects.



5-32
Right: Missing brick on east facade, 2016, Harboe Architects.

Paving/Fence

Description

After the area next to the basement walls was excavated and pardged in the 2004 renovation, brick pavers were installed at grade level. Also added was a locked brick and wrought iron enclosure at the south end of the property to shield the view of garbage and recycling cans, and a six foot wrought iron fence was installed to the east to separate Charnley-Persky House's half of this lot from the half owned by the condo association next door. Motion sensor exterior lighting was installed in the can storage area and on the back wall of the house.

Condition

The brick pavers are unevenly laid in some spots following two archaeological digs in that area in 2010 and 2015. Some pavers were damaged when a gate was installed at the north end of the lot but they can easily be replaced. The wrought iron fencing needs to be painted regularly and the exterior lights and gate locks are damaged by exposure to the weather. The lock needs to be replaced regularly but the lights currently work well enough. In addition, at some point the pavers could be laid differently to allow for greater water permeability.

5-33

Left: Brick pavers on parking area on the east side of the house. Wrought iron fence is in the background, 2016, Harboe Architects.



5-34

Left: Brick pavers at southeast corner of the house, 2016, Harboe Architects.



Roof

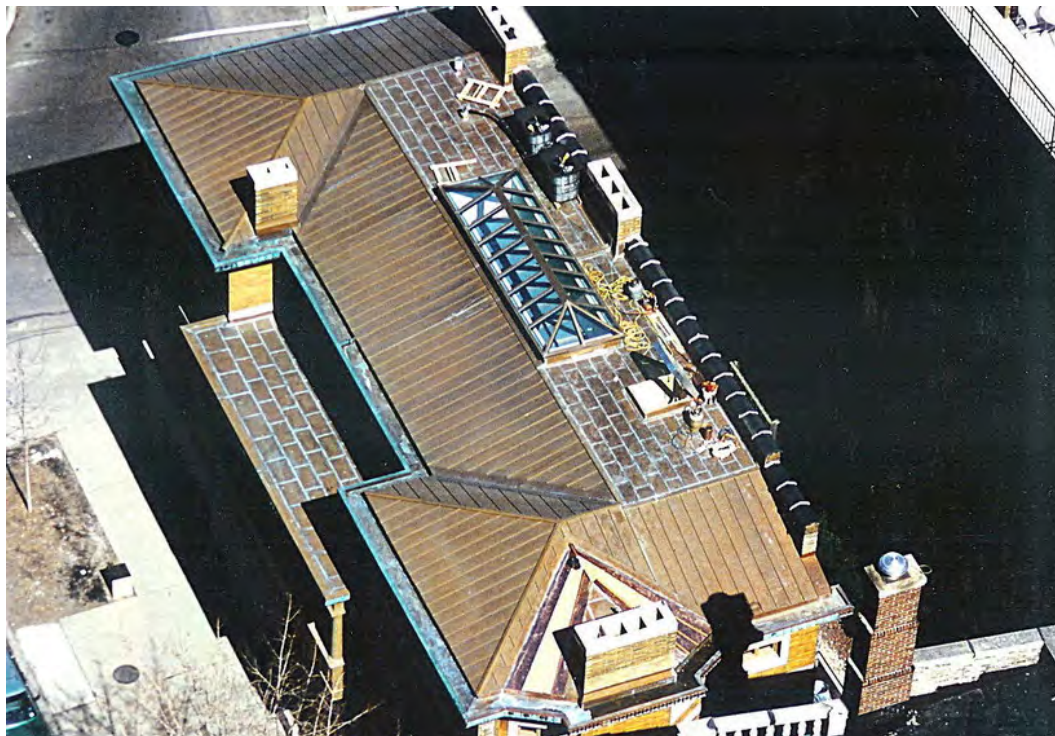
Description

The house has a low pitched copper roof with a decorative pressed copper cornice on the north, west, and south sides and a parapet wall on the east side. At the center of the roof is a raised skylight with glass lights and a metal frame. The roof and skylight were completely replaced during the 1980s SOM renovation. Four original brick chimneys project above the roof.

Condition

Overall the roof appears to be in good condition. The survey of the roof was limited to a visual inspection from the ground and from standing on a ladder looking out through the roof hatch due to restricted access. The following conditions were observed:

- Flat seamed copper roofing – Some of the seams appear to have opened which could lead to water leakage inside the house.
- Copper roofing – Appears to be in good condition.
- Pressed copper cornice – Is in fair condition. Some of the copper squares and circles that comprise the ornamental frieze are loose or missing. Some have become unsecured and have blown off during heavy winds.
- Parapet wall – The parapet wall appears to be in good condition. There is some staining on the roof side of the wall.



5-35
Aerial view showing Char-
nley-Persky
House roof,
SOM.

- Chimneys – The brick chimneys appear to be in fair condition. Some of the mortar joints are deteriorated and require repointing. Drafts from the north chimney have caused freezing of the pipes in the second floor bathroom. The pipes have frozen and broken twice, which caused floods in the library below.
- Skylight – Water is pooling around the edges of the skylight. The skylight is leaking into the stair hall on the south end. Gaps or vents in the skylight area let in debris such as seed pods from the maple tree.

5-36

Left: Skylight, 2016, Harboe Architects.



5-37

Right: Water pooling at corner of skylight, 2016, Harboe Architects.



5-38

Left: Flat seam copper roof, 2016, Harboe Architects.



5-39

Right: Flat seam copper roof, 2016, Harboe Architects.



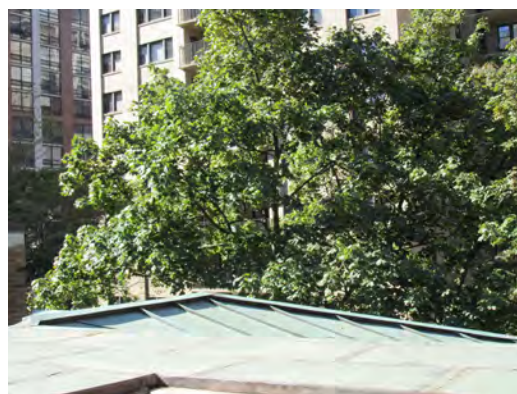
5-40

Left: Partial view of parapet wall and roof vent, 2016, Harboe Architects.



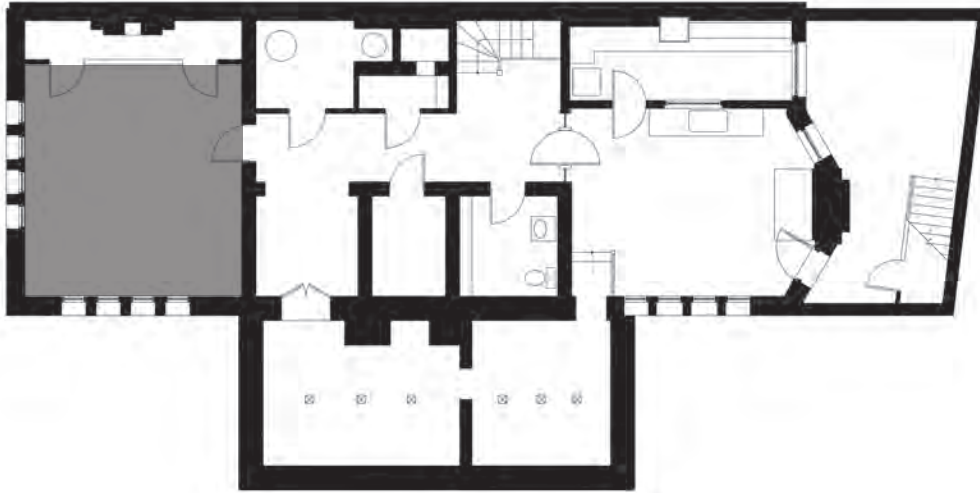
5-41

Right: Standing seam copper roofing at perimeter of roof, 2016, Harboe Architects.



INTERIOR CONDITION ASSESSMENT

Storage Room (001)



5-42

Basement
Location Plan.
Shaded area
shows location
of Storage
Room (001).

Floor

Description

There is vinyl tile flooring from the SOM renovation in 1980s in the Storage Room.

Condition

The vinyl tile flooring is in fair condition. It is significantly soiled and scratched. There are also some damaged tiles.

Walls

Description

The walls are painted plaster with a textured finish. There is a painted wood baseboard that runs along the bottom of the wall. The electric meter is in the northwest corner. The walls were replastered following water damage in 2014.

Condition

The walls are in fair condition. There are several nicks and scratches as well as areas where the plaster finish coat has scraped off of the wall. The shoe molding on the baseboard is damaged on the east wall.

Ceiling

Description

The ceiling is painted plaster with a textured finish. The east half of the ceiling was replastered after water damage in 2014. The west half is from the 1980s SOM renovation.

Condition

The ceiling is in good condition.

Doors

Description

There are three painted wood paneled doors – one on the south wall that accesses the basement corridor and the other two on the east wall accessing the storage/electrical room. The corridor door is historic and has a textured glass panel. The other doors were added during the 1980s SOM renovation.

Condition

The doors are in good condition. There are some scratches, nicks, and chips in the paint finish.

Windows

Description

There are eight clear glass casement windows with painted wood sashes and frames – four on the west wall and four on the north wall. These windows appear to be original.

Condition

The windows appear to be in good condition.

Millwork

Description

There is a wood framed box covered in painted beadboard projecting below the ceiling along the south wall. It contains the radiator that heats the Living Room above.

Condition

The radiator box is in good condition.

Lighting

Description

There are four ceiling mounted brass fixtures with frosted glass globes. These fixtures date from ca. 1985.

Condition

The light fixtures are in good condition.



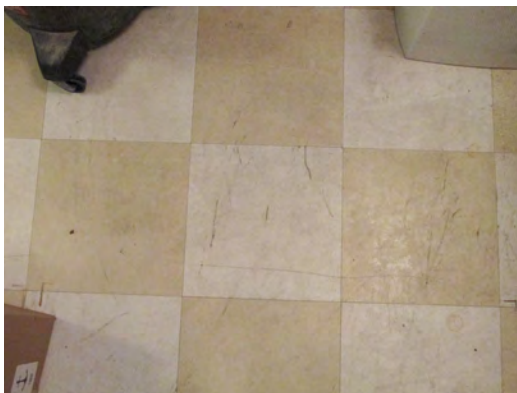
5-43

Left: View of Storage Room looking north-west, 2016, Harboe Architects.



5-44

Right: Damaged shoe molding on baseboard, 2016, Harboe Architects.



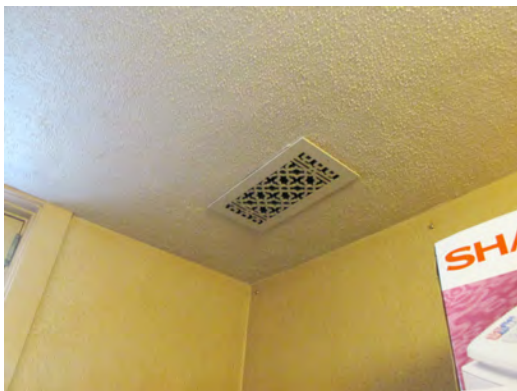
5-45

Left: Scratched vinyl tile flooring, 2016, Harboe Architects.



5-46

Right: Damaged painted plaster wall, 2016, Harboe Architects.



5-47

Left: Metal ceiling register, 2016, Harboe Architects.

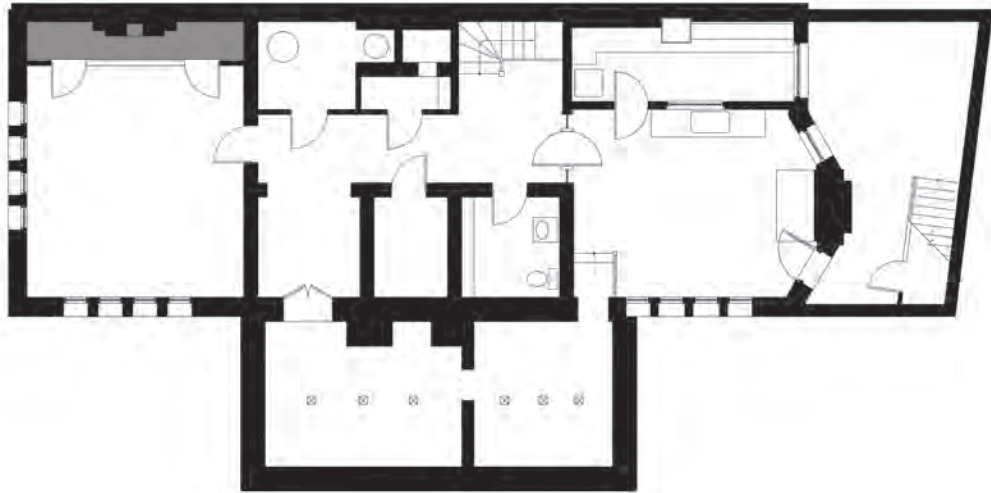


5-48

Right: Windows on west wall of the Storage Room, 2016, Harboe Architects.

Storage/Electrical (001A)

5-49
Basement
location plan.
Shaded area
shows location
of Storage/
Electrical Room
(001A).



Floor

Description

There is vinyl tile flooring from the 1980s SOM renovation in the Storage/Electrical Room.

Condition

The vinyl tile flooring is in fair condition. It is significantly soiled and scratched. There are also some damaged tiles.

Walls

Description

There is a stone and brick foundation wall.

Condition

The walls are generally in good condition. There is some efflorescence on the surface of the masonry.

Ceiling

Description

There is no finish ceiling in the Storage/Electrical Room. The wood floor joists, piping, and wiring are exposed.

Condition

The wood floor joists appear to be in good condition.

Doors

Description

There are two painted wood paneled doors on the west wall accessing the adjacent storage room that were added during the 1980s SOM renovation.

Condition

The doors are generally in good condition. There are some scratches, nicks, and chips in the paint finish.

Lighting

Description

Lighting includes two simple surface mounted fixtures with exposed bulbs on the west wall.

Condition

The light fixtures are in good condition.

MEP Systems

Description

There is significant heating and drainage piping in this room as well as the electrical and telephone panels and the main shut off for the electrical service.

Condition

See "Building Systems Assessment" on page 198.



5-50

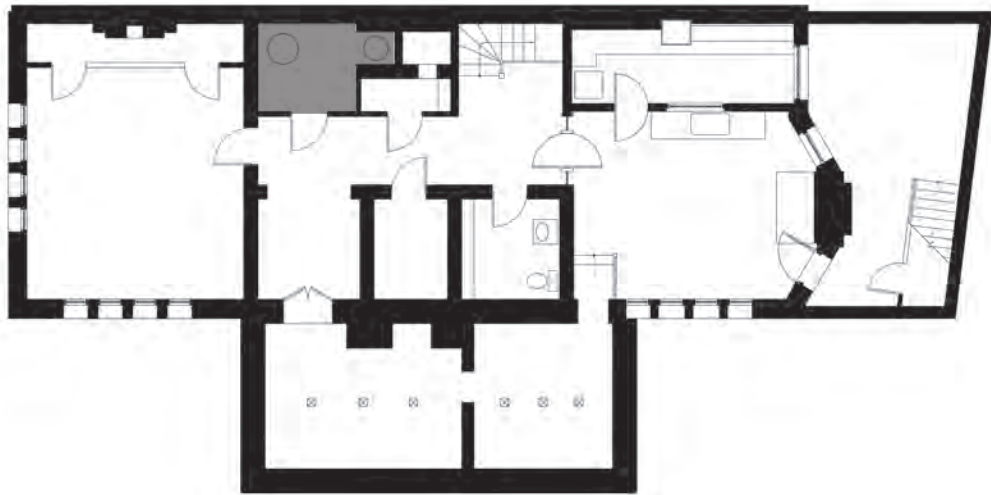
Left: Storage/
Electrical Room
looking south,
2016, Harboe
Architects.

5-51

Right: Efflores-
cence on the
brick wall of
the Storage/
Electrical Room,
2016, Harboe
Architects.

Mechanical Room (002)

5-52
Basement
location plan.
Shaded area
shows location
of Mechanical
Room (002).



Floor

Description

There is a poured concrete floor with a drain in the Mechanical Room. The concrete slab was poured during the 1980s SOM renovation.

Condition

The concrete floor is soiled but otherwise it appears to be in good condition.

Walls

Description

There is a stone and brick foundation wall. There is a section of painted textured plaster on the north wall.

Condition

The walls are generally in good condition. There is some efflorescence on the surface of the masonry.

Ceiling

Description

There is no finish ceiling in the Mechanical Room. The wood floor joists, piping, and wiring are exposed.

Condition

The wood floor joists appear to be in good condition.

Doors

Description

There is a painted wood paneled door on the west wall accessing the adjacent corridor. This door was installed in the 1980s SOM renovation.

Condition

The door is generally in good condition. There are some scratches, nicks, and chips in the paint finish.

Lighting

Description

Lighting includes a simple surface mounted fixture with exposed bulbs on ceiling.

Condition

The light fixture is in good condition.

MEP Systems

Description

The boiler and the water heater are located in this room.

Condition

See "Building Systems Assessment" on page 198.



5-53

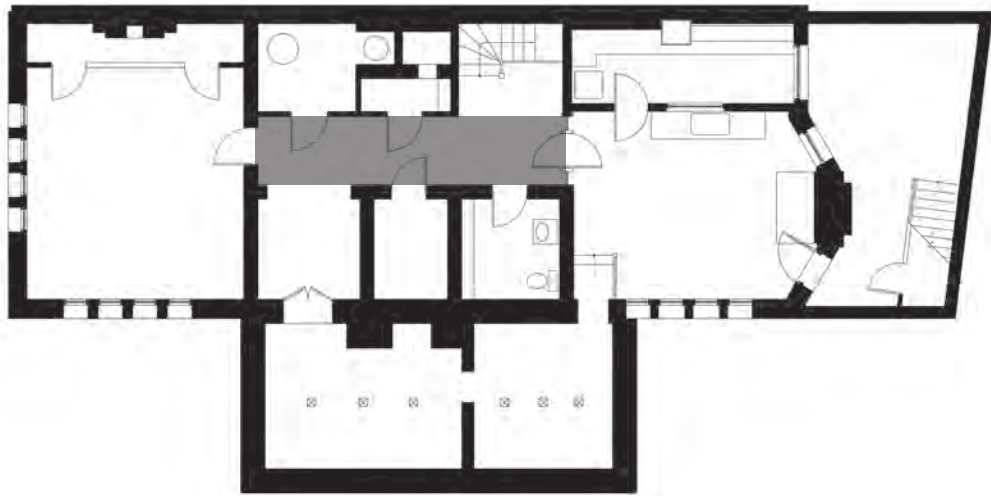
Left: Looking into Mechanical Room, 2017, Harboe Architects.

5-54

Right: Mechanical Room, 2017, Harboe Architects.

Corridor (003)

5-55
Basement
location plan.
Shaded area
shows location
of Corridor
(003).



Floor

Description

There is terracotta-colored ceramic quarry tile flooring in the basement Corridor. The tile floor was installed in 2014.

Condition

The tile floor is in good condition.

Walls

Description

The walls are painted plaster with a textured finish. A painted wood baseboard runs along the bottom of the wall. The walls were re-plastered in 2014.

Condition

The walls are in good condition. There are some nicks, scratches, as well as chipped paint.

Ceiling

Description

The ceiling is painted plaster with a textured finish from the 1980s SOM renovation.

Condition

The ceiling is in good condition.

Doors

Description

There are six painted wood paneled doors with wood frames in the corridor. Two of the doors – the door to the Storage Room (001) and Tour Center (007) – have textured glass panels. The Tour Center door has textured glass sidelights as well. The doors have bronze hardware. All of the doors appear to be original except the door to the Mechanical Room.

Condition

The doors are generally in good condition. There are some scratches, nicks, and chips in the paint finish. The finish on the bronze hardware is worn.

Lighting

Description

There are six recessed lights in the corridor ceiling from the 1980s SOM renovation.

Condition

The recessed lights appear to be in good condition; however, complete can light fixtures were never installed in the SOM renovation in the 1980s.



5-56

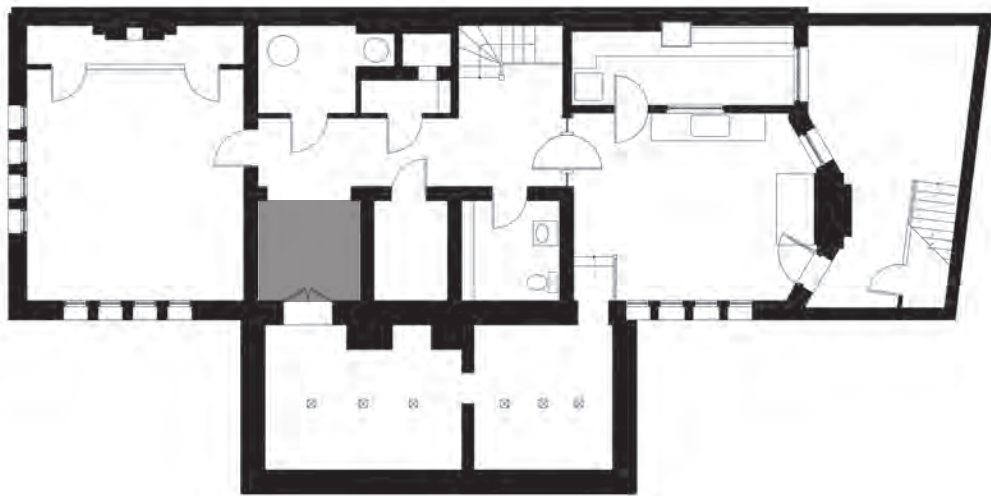
Left: Corridor looking north, 2016, Harboe Architects.

5-57

Right: Corridor looking south, 2016, Harboe Architects.

Alcove (004)

5-58
Basement
location plan.
Shaded area
shows location
of Alcove (004).



Floor

Description

There is terracotta-colored ceramic quarry tile flooring in the Alcove. The tile floor was installed in 2014.

Condition

The tile floor is in good condition.

Walls

Description

The walls are painted plaster with a textured finish. A painted wood baseboard runs along the bottom of the wall. The walls were re-plastered in 2014.

Condition

The walls are in good condition. There are some nicks, scratches, as well as chipped paint.

Ceiling

Description

The ceiling is painted plaster with a textured finish from the 1980s SOM renovation.

Condition

The ceiling is in good condition.

Doors

Description

There is a painted wood double door with painted wood frame on the west wall that accesses the sidewalk vault. This door appears to be original.

Condition

The door is generally in good condition. There are some scratches, nicks, and chips in the paint finish.

Windows

Description

There is a narrow casement window with a painted wood sash and frame above the door to the sidewalk vault. The window was installed in the 1980s SOM renovation.

Condition

The window is in good condition.

Lighting

Description

There is one ceiling mounted brass fixture with frosted glass globe from 1985.

Condition

The light fixture is in good condition.

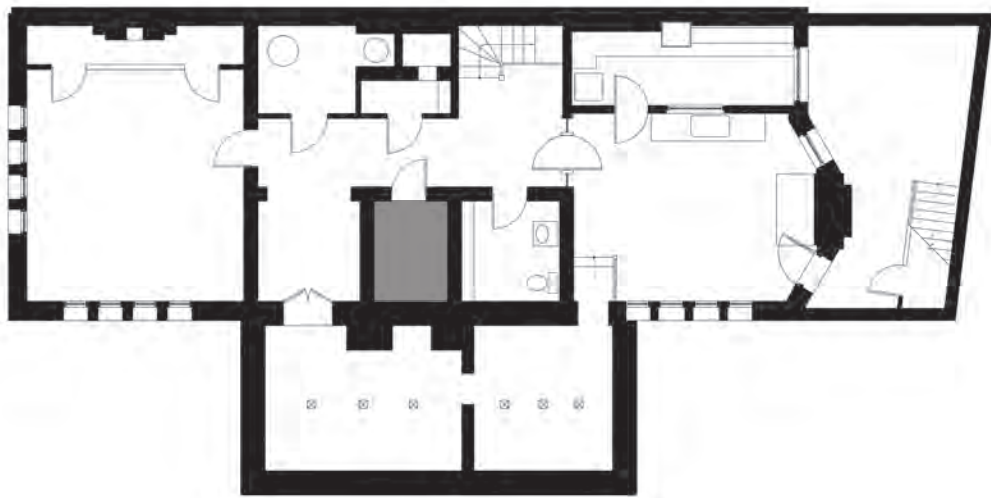


5-59

Alcove looking west, 2016, Harboe Architects.

Wine Cellar (005)

5-60
Basement
location plan.
Shaded area
shows location
of Wine Cellar
(005).



Floor

Description

There is a poured concrete floor in the Wine Cellar from the 1980s SOM renovation.

Condition

The concrete floor is soiled but otherwise it appears to be in good condition.

Walls

Description

There is an original stone and brick foundation wall.

Condition

The walls are generally in good condition.

Ceiling

Description

There is no finish ceiling. The wood floor structure above is exposed.

Condition

The wood floor structure appears to be in good condition.

Doors

Description

There is a painted wood paneled door on the east wall accessing the adjacent corridor. The door appears to be original.

Condition

The door is generally in good condition. There are some scratches, nicks, and chips in the paint finish.

Lighting

Description

Lighting includes a simple surface mounted fixture with an exposed bulb.

Condition

The light fixture is in good condition.

Radiator Box

Description

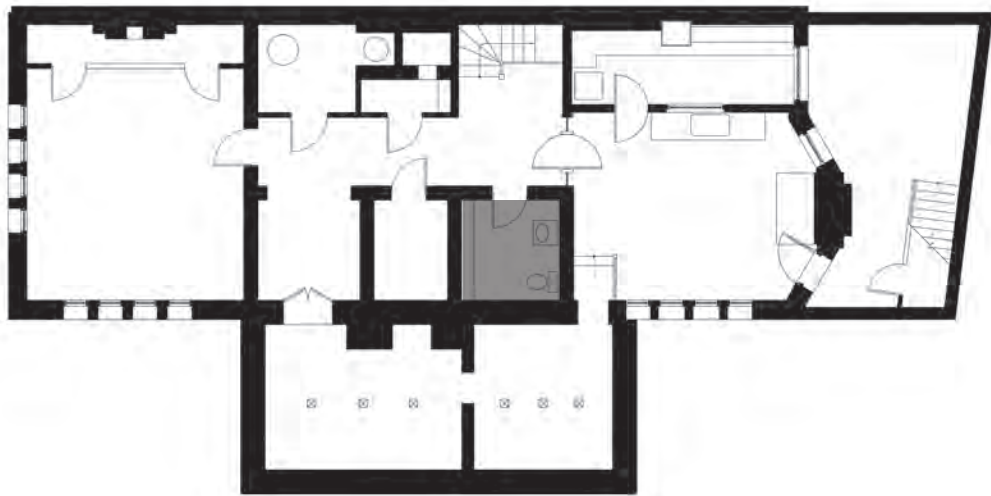
There is a box suspended from the ceiling that contains a radiator that originally provided heat for the front hall.

Condition

The radiator box appears to be in good condition. In 1996 the water pipes supplying that radiator froze and broke. They had to be cut and capped so there now is no heat going to the front hall.

Toilet Room (006)

5-61
Basement
location plan.
Shaded area
shows location
of Toilet Room
(006).



Floor

Description

There is hexagonal tile flooring in the bathroom. The tile floor was installed during the 1980s SOM renovation.

Condition

The tiles and grout are soiled, but otherwise in good condition.

Walls

Description

The walls are painted plaster with a textured finish. There is a painted wood baseboard that runs along the bottom of the wall. The walls were replastered in 2014.

Condition

The walls are in good condition. There are some nicks, scratches, as well as chipped paint.

Ceiling

Description

The ceiling is painted plaster from the 1980s SOM renovation.

Condition

The ceiling is in good condition.

Doors

Description

There is a painted wood paneled door that accesses the adjacent corridor. The door appears to be original.

Condition

The door is in good condition. There are some minor nicks and scratches.

Window

Description

There is a small casement window with frosted glass on the west wall which was installed in the 1980s SOM renovation.

Condition

The window is in good condition.

Mirror

Description

There is a painted wood framed mirror above the sink. The mirror was installed in the 1980s SOM renovation.

Condition

The mirror appears to be in good condition.

Millwork

Description

There is a painted wood radiator cabinet along the north wall of the Toilet Room. The cabinet pre-dates the 1980s SOM renovation.

Condition

The radiator cabinet appears to be in good condition. There are some small nicks and chips in the paint.

Plumbing Fixtures

Description

There is a white porcelain toilet and sink. The toilet and sink are not original.

Condition

The toilet and sink are in fair to good condition. The porcelain sink was previously refinished. The refinished surface has peeled off in some places.

Lighting

Description

There are wall mounted sconces on each side of the mirror. These sconces are not original to the house.

Condition

The sconces are in good condition.

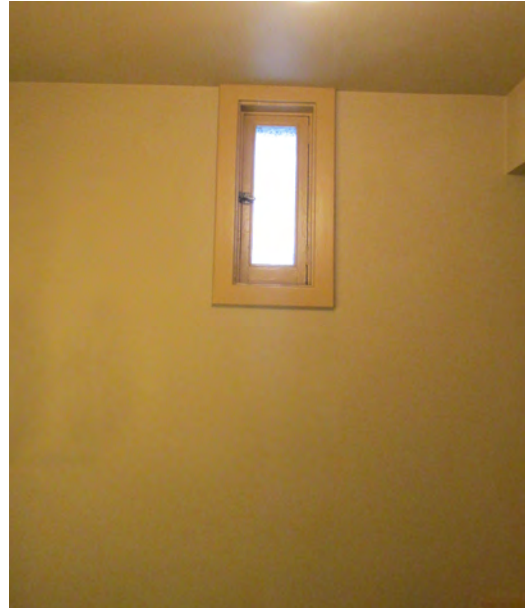
5-62

Left: Basement
Toilet Room
2016, Harboe
Architects.



5-63

Right: Window
in basement
Toilet Room
2016, Harboe
Architects.



5-64

Left: Radiator
cabinet in Toilet
Room 2016, Har-
boe Architects.



5-65

Right: Sink in
Toilet Room
2016, Harboe
Architects.



Tour Center/Historic Kitchen (007)



5-66

Basement location plan. Shaded area shows location of Tour Center/Historic Kitchen (007).

Floor

Description

There is terracotta-colored ceramic quarry tile flooring in the Tour Center/Historic Kitchen. The tile floor was installed in 2014. The original brick hearth is at floor level under the range hood.

Condition

The tile floor is in good condition. The brick hearth is in fair condition.

Walls

Description

The walls are painted plaster with a textured finish. There is a painted wood baseboard and chair rail. The walls were re-plastered in 2014.

Condition

The walls are in good condition. There are some nicks, scratches, as well as chipped paint.

Ceiling

Description

The ceiling is painted plaster with a textured finish from the 1980s SOM renovation.

Condition

The ceiling is in good condition.

Doors

Description

There are three painted wood paneled doors with wood frames in the Tour Center. Two of the doors – the door to the Corridor and the door on the south wall that leads out to the courtyard – have textured glass panels. The Corridor door has textured glass sidelights. There is also a door on the west wall that accesses the former coal vault (010). The doors have bronze hardware and appear to be original.

Condition

The doors are generally in good condition. There are some scratches, nicks, and chips in the paint finish. The finish on the bronze hardware is worn.

Windows

Description

There are four clear glass casement windows with painted wood sashes and frames on the west wall; a double hung window with painted wood sash and frame on the south wall; and a fixed window with painted wood sash and frame on the east wall. The windows appear to be original.

Condition

The windows appear to be in good condition.

Sink & Counter

Description

There is a concrete sink with a Vermont soapstone countertop and backsplash on the east wall of the tour center. The sink is believed to be original to the house.

Condition

The sink is in good condition. The soapstone countertop is in fair to good condition. There is a crack on the lip in front of the sink.

Stairs

Description

Three steps lead down to the door to the vault on the northwest side of the room. On the south side of the stair is a painted wood newel post and wood railing.

Condition

The stairs and railing are in good condition.

Metal Hood

Description

There is a metal range hood with cast metal ornament on the south wall. This is

the original hood for the kitchen stove. There is a capped gas line adjacent to the hood. Also, there are two vent holes currently sealed with paper inside the hood.

Condition

The hood is in good condition. There are a few small dents and scratches.

Lighting

Description

There are four ceiling mounted brass fixtures with frosted glass globe that date from the 1980s renovation.

Condition

The light fixtures are in good condition.

Radiator Box

Description

There is a painted wood radiator box below the ceiling along the north wall. It contains the radiator that heats the Dining Room above.

Condition

The radiator box is in good condition.



5-67

Left: Tour Center looking south, 2016, Harboe Architects.



5-68

Right: Tour Center looking north, 2016, Harboe Architects.



5-69

Left: Historic kitchen sink and counter, 2016, Harboe Architects.

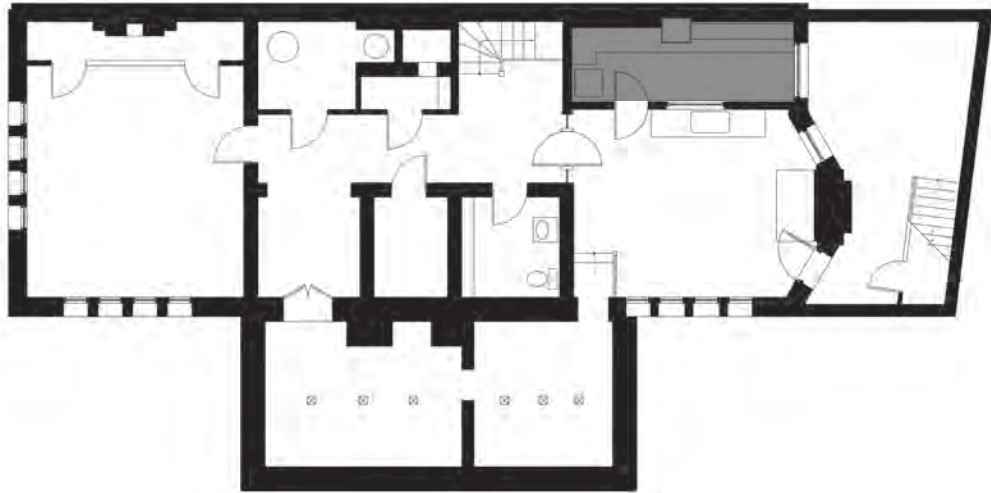


5-70

Right: Original metal hood, 2016, Harboe Architects.

Kitchen (008)

5-71
Basement
location plan.
Shaded area
shows location
of Kitchen (008).



Floor

Description

There is terracotta-colored ceramic quarry tile flooring in the Kitchen. The tile floor was installed in 2014.

Condition

The tile floor is in good condition.

Walls

Description

The walls are painted plaster with incised lines to give it the appearance of tile.

Condition

The walls were repaired in 2014 and appear to be in good condition.

Ceiling

Description

The ceiling is painted plaster with a textured finish from the 1980s SOM renovation.

Condition

The ceiling is in good condition.

Windows

Description

There is a casement window with painted wood sashes and frame on the south wall and a fixed window with painted wood sash and frame on the west wall. The interior window on the west wall appears to be original. The south wall window was installed during the 1980s SOM renovation.

Condition

The window appears to be in good condition.

Millwork

Description

The Kitchen has built-in upper and lower painted wood cabinets on the east wall. The countertops are white Corian laminate. The upper cabinets have doors with clear glass panels. All of the cabinets have bronze pulls and hinges. The cabinets were installed during the 1980s SOM renovation. There is an original dumbwaiter with painted wood door with brass pulls and hinges that was used to pass food from the Kitchen in the basement to the Butler's Pantry on the first floor.

Condition

The cabinets are in good condition. There are some nicks and scratches on the surface of the cabinets and countertops. The brass pulls are in good condition. The dumbwaiter has newer pulleys and ropes and is in good condition and functional.

Lighting

Description

There are two ceiling mounted brass fixture with frosted glass globe. The light fixtures were installed during the 1980s renovation.

Condition

The light fixtures are in good condition.

MEP Systems

Description

There are exposed water pipes and gas lines in the Kitchen, as well as a water main shut off. In the southwest corner is piping and additional heat pump to provide better heating in the southern half of the building.

Condition

See "Building Systems Assessment" on page 198.

5-72

Left: Kitchen
looking south,
2016, Harboe
Architects.



5-73

Right: Kitchen
looking north,
2016, Harboe
Architects.



5-74

Left: Kitchen
looking east,
2016, Harboe
Architects.

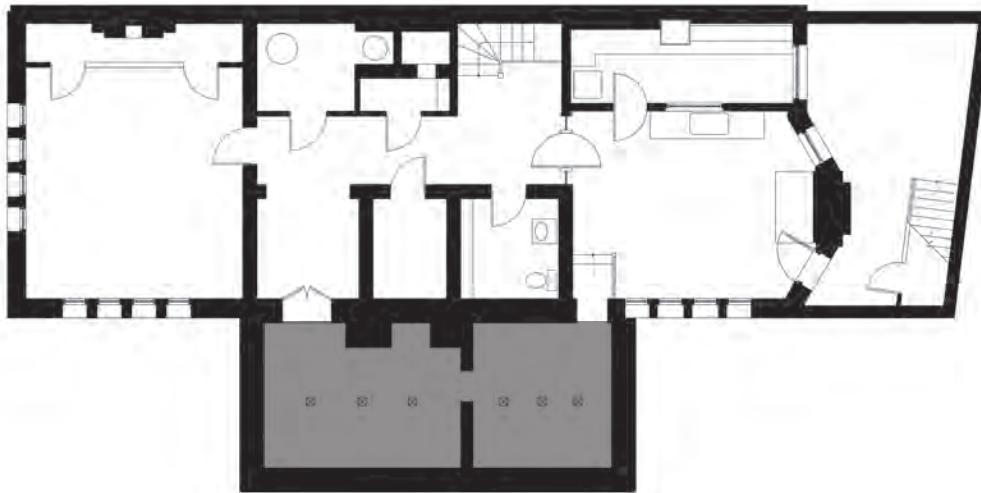


5-75

Right: Kitchen
looking south-
east, 2016, Har-
boe Architects.



Sidewalk Vault/Original Coal Vault (010)



5-76

Basement location plan. Shaded area shows location of Sidewalk Vault (010).

Floor

Description

The floor in the vault is a concrete slab from the 1980s SOM renovation.

Condition

The floor is in good condition.

Walls

Description

The walls in the vault are a combination of brick and stone masonry and are original.

Condition

The masonry walls are in good condition.

Ceiling

Description

The ceiling in the vault is a 12" thick concrete slab. It was installed in 2004 and supports the sidewalk above.

Condition

The concrete ceiling is in good condition.

Doors

Description

There are two painted wood paneled doors in the vault – a double leaf door on the north end of the east wall and a single leaf door on the south end of the east wall. These doors appear to be original.

Condition

The doors are in good condition. There are a few small scratches and nicks.

Lighting

Description

Lighting includes simple surface mounted fixtures with exposed bulbs.

Condition

The light fixtures are in good condition.

MEP Systems

Description

The south vault contains a sump pump and tank. The north vault contains the gas meter.

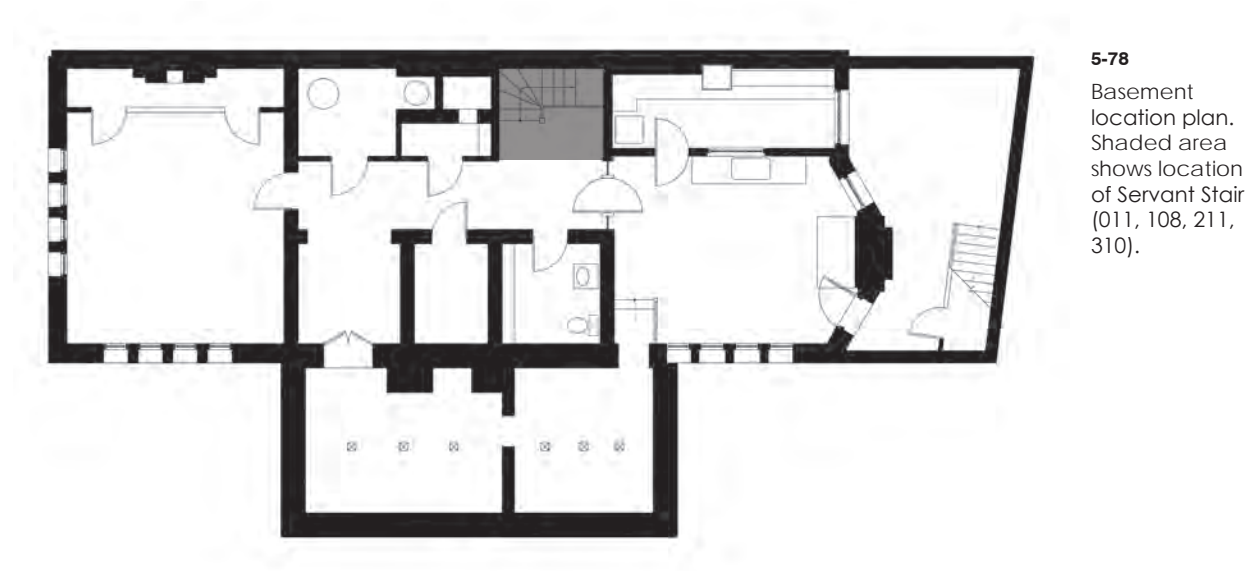
Condition

See "Building Systems Assessment" on page 198.

5-77
Left: Kitchen
looking east,
2016, Leslie
Schwartz.



Servant Stair (011, 108, 211, 310)



Floor

Description

The flooring at the landings is painted wood and appears to be original.

Condition

The flooring is in relatively good condition. There are some scratches and gouges.

Stairs

Description

The Servant Stair is a quarter turn staircase with winders that goes from the basement to the third floor of the house. The treads and risers are both painted wood and appear to be original. There are non-original black rubber non-slip tread covers on each step. At the basement level, there is a small storage closet under the stairs.

Condition

The stairs are in relatively good condition. There are some scratches and nicks.

Walls

Description

The walls in the Servant Stair are painted plaster. There is a painted wood base that runs up the stair at the bottom of the wall. The walls are from the 1980s SOM renovation.

Condition

The plaster walls and wood base are in good condition.

Ceiling

Description

The ceiling in the stair is painted plaster from the 1980s SOM renovation.

Condition

The plaster ceiling is in good condition.

Doors

Description

A painted wood paneled door in the Servant Stair accesses the driveway on the east side of the house at the ground floor, Butler's Pantry at the first floor, Stair Hall on the second floor, and Office on the third floor. The door on the ground floor was installed during the 1980s SOM renovation and has two wire reinforced glass lights. The other doors appear to be original. All doors have bronze hardware.

Condition

The doors are in good condition. There are some small nicks and chips in the paint surface. The finish on the bronze hardware is slightly worn.

Windows

Description

There are windows with textured glass and wood sashes and frames on the second and third floors of the stair. These windows look out into the main Stair Hall. These windows were installed during the 1980s SOM renovation.

Condition

The windows are in good condition.

Stair Railing

Description

Vertical painted wood railings are attached to the center post of the stair with metal mounting brackets. These railings were added during the 1980s SOM renovation. There is a painted wood railing with spindles and newel post where the stair is open at the basement level. A similar railing and newel post is located at the opening at the third floor. These railings and newel posts appear to be original.

Condition

The stair railing is in good condition.

Radiator Box

Description

There is a painted wood radiator box below the ceiling next to the stair.

Condition

The radiator box is in good condition.

Skylight/Roof Hatch

Description

There is a roof hatch in the third floor ceiling at the top of the stair that was added during the 1980s SOM renovation.

Condition

The hydraulic arms on the roof hatch do not work properly and the hatch does not stay open without additional support.

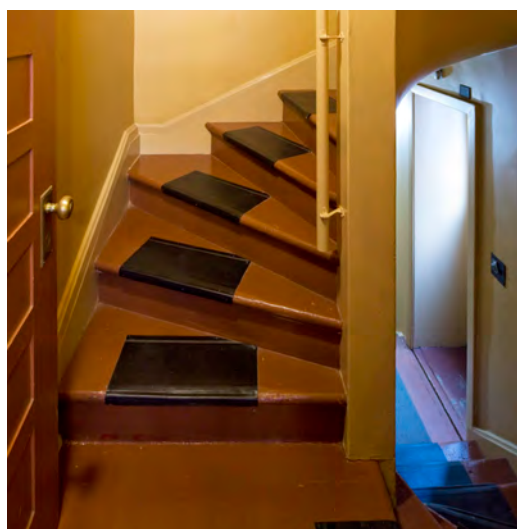
Lighting

Description

There are sconces mounted on the wall at each level of the stair. At the top of the stair on the third floor is a globe fixture mounted to the top of the wood newel post.

Condition

The light fixtures are in good condition.



5-79

Left: Servant Stair at first floor, 2016, Leslie Schwartz.

5-80

Right: Servant stair at basement, 2016, Harboe Architects.



5-81

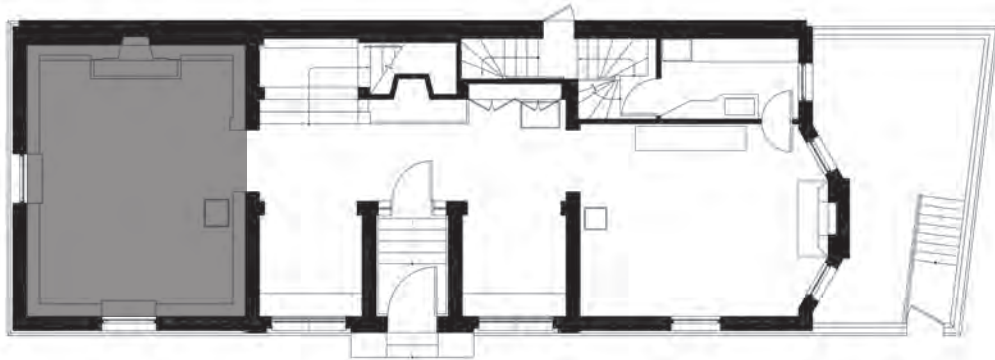
Left: Detail of stairs, 2016, Harboe Architects.

5-82

Right: Globe light on newel post at the top of the Servant Stair, 2016, Harboe Architects.

Living Room/Library (101)

5-83
First floor
location plan.
Shaded area
shows location
of Living Room/
Library (101).



Floor

Description

There is original oak flooring throughout the Living Room and a bronze floor grate along the south wall just west of the entryway from the Hall to the Living Room.

Condition

The floor is in fair condition. It is buckled on the northeast side of the room from floods that occurred in 2014 and before. There is also some general wear including scratches and scuffs, as well as small nicks and holes. The bronze grate is from the 1980s renovation and is in good condition. It is tarnished and has some scratches.

Walls

Description

The walls are painted plaster. The plaster is not original. The original plaster was completely removed and replaced during the 1980s restoration; however, it is believed that some original plaster exists behind the wood cabinets. A thermostat has been installed on the wall near the southeast corner of the room.

Condition

Overall, the painted plaster walls are in good condition. There are some small cracks and chips in the plaster and paint.

Ceiling

Description

The ceiling is textured painted plaster. The texture is noticeably different on the east half of the ceiling. This section of the ceiling was damaged and replaced in 2014. In the center of the ceiling is a round, decorative brass cover plate over the electrical box for a ceiling light. In the west section of the ceiling is a painted metal air conditioning vent, and in the southwest corner of the room is a sprinkler head.

Condition

Overall, the painted plaster ceiling is in good condition. There are some small cracks and chips in the plaster and paint.

Windows***Description***

There are two double hung wood windows in the Living Room. The wood window sashes and frames appear to be original although they have been re-glazed with insulated glass (I.G.) units.

Condition

The windows and frames are in fair condition. The seal is broken on the I.G. unit of the top sash on the west window and the bottom sash on the north window. There are also some small nicks and scratches on the frames and sashes.

Millwork***Description***

The millwork in the Living Room includes the oak baseboards, chair rails, cornice, trim around the arched entryway, window seats and drawers, and bookcases. The bookcases on the west and north walls are open; on the east wall the bookcases flanking the fireplace have doors with decorative leaded glass panels; on the south wall are cabinets with oak veneer doors. The window seats were added in the 1980s SOM renovation. All other millwork appears to be original.

Condition

The wood baseboards, chair rails, cornice, and other trim are in good condition. There is a gap where the cornice meets at the southeast corner. The bookcases are in fair condition. There are splits in the wood backs of the cabinets and book shelves. Also, there are splits in the wood veneer on the cabinet doors.

Fireplace***Description***

The fireplace has an original oak mantel with decorative carved ornament, a marble face, and a tile hearth.

Condition

The marble and tile is in good condition. There is a crack in the wood mantel on the north side of the fireplace.

Lighting***Description***

There are eight brass and plastic Michael Graves designed wall sconces (two on each wall) that are not original and were installed during the 1980s renovation.

Condition

The sconces are in good condition.

5-84

Left: Living Room looking southeast, 2016, Harboe Architects.



5-85

Right: Living Room looking west, 2016, Harboe Architects.

5-86

Left: Living Room fireplace, 2016, Harboe Architects.



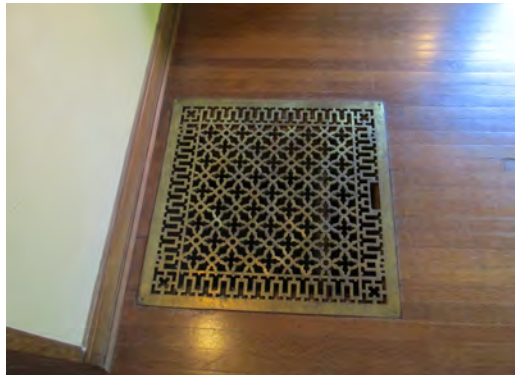
5-87

Right: Living Room cabinets and floor, 2016, Harboe Architects.



5-88

Left: Bronze radiator grill in Living Room, 2016, Harboe Architects.



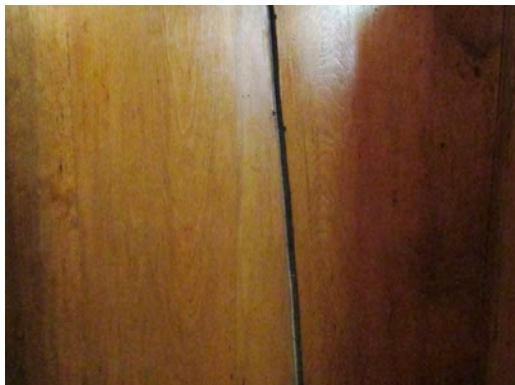
5-89

Right: Window seat and drawer, 2016, Harboe Architects.



5-90

Left: Split wood back of cabinet in Living Room, 2016, Harboe Architects.

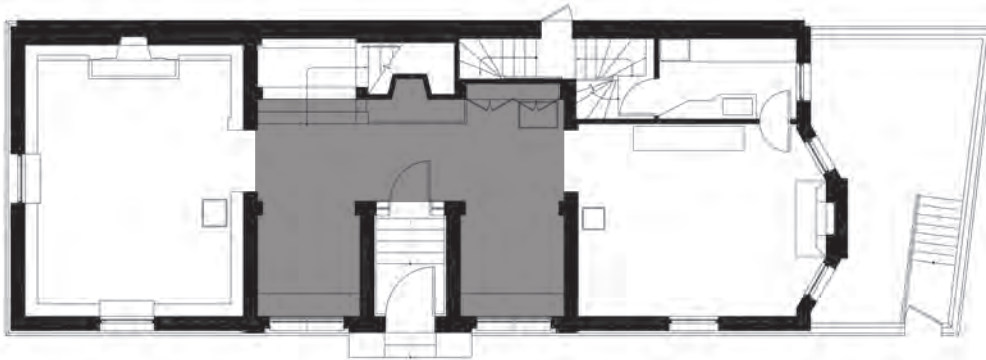


5-91

Right: Living Room ceiling, 2016, Harboe Architects.



Hall and Alcoves (102, 103, 105)



5-92

First floor location plan. Shaded area shows location of Hall and Alcoves (102, 103, 105).

Floor

Description

The first floor Hall has original oak flooring. There is a bronze floor grate covering the radiator below the floor near the south wall. The floor grate appears to be original.

Condition

The oak flooring is in fair condition. The finish on the floor under the rug is significantly worn. There are also some scratches, scuffs, nicks, and small holes. The bronze grate is in good condition with only some tarnishing, scratches, and stains.

Walls

Description

The walls are painted plaster with a textured surface. The plaster is not original. The original plaster was completely removed and replaced during the 1980s SOM renovation. The plaster was also repaired in the 2000s.

Condition

The painted plaster walls are in fair to good condition. There are several locations where the paint and/or plaster is chipped, especially at edges and the lower part of the wall. There are also some small screw holes and devices attached to the walls. There is a previous patch above and to the left of the main door transom, as well as some minor hairline cracks in the skim coat.

Ceiling

Description

The ceiling is painted plaster with a textured surface. The plaster is not original. The original plaster was removed and replaced during the 1980s SOM renovation.

Condition

The ceiling is in relatively good condition. There is some delamination and cracking of paint.

Doors***Description***

The main entry door is an oak paneled door with an oak frame, carved wood ornament, wood beading around the panels, leaded glass sidelights and transom, and bronze hardware. The door, sidelights, and transom appear to be original.

Condition

The door and frame are in good condition. There are some small nicks and scratches on the door and frame. The leaded glass sidelights and transom are in good condition. The finish on the bronze hardware is slightly worn.

Windows***Description***

There are oak casement windows with oak frames in the alcoves on either side of the front door. The windows are leaded glass with decorative lead comes on the exterior. There are interior wood storms with clear glass panes. The windows have bronze hardware. The leaded glass windows appear to be original. The storm windows are from the 1980s SOM renovation.

Condition

The windows are in poor condition with some sagging comes. Decades ago horizontal bars were added to stabilize the windows but they obstruct the design.

Millwork***Description***

The millwork in the hall is all oak and includes the baseboards, newel post, chair rails, trim around arched openings, and cabinets in the niche on the east wall under stair. Most of the millwork appears to be original; however, some of the wood trim appears to be replacement pieces since the wood grain does not match the existing adjacent trim.

Condition

The millwork is in fair to good condition. There are some scratches, scuffs, and nicks, as well as some small separations at joints. Three of the four wood cabinet doors have vertical splits in them. The beaded trim is also loose or missing in some parts.

Fireplace

Description

The fireplace and hearth are faced with yellow and beige mosaic tile with oval patterns in red, green, yellow, and blue. The mosaic fields are framed in thin strips of gray marble.

Condition

The mosaic is in good condition. Some of the tiles are replacement pieces from the 1980s renovation. The marble is cracked and chipped in multiple locations and slightly heaving at the joints at the hearth.

Lighting

Description

There are two bronze ceiling mounted fixtures, each with three exposed bulbs in the main hall. There is a pendant fixture in each of the alcoves. The light fixtures are not original and were installed during the 1980s SOM renovation.

Condition

The light fixtures appear to be in good condition.



5-93

Left: First floor Hall looking north, 2016, Harboe Architects.

5-94

Right: First floor Hall looking south, 2016, Harboe Architects.

5-95

Left: Main entry door in Hall, 2016, Harboe Architects.



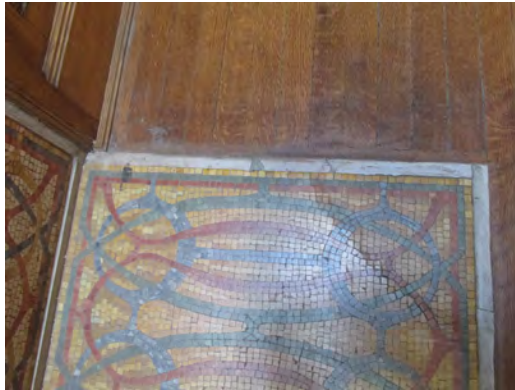
5-96

Right: Fireplace in first floor Hall, 2016, Harboe Architects.



5-97

Left: Mosaic tile hearth, 2016, Harboe Architects.



5-98

Right: Alcove window, 2016, Harboe Architects.



5-99

Left: Wood cabinets in niche under stair, 2016, Harboe Architects.



5-100

Right: Chipped paint on wall next to niche, 2016, Harboe Architects.



5-101

Left: Chipped paint in north Alcove, 2016, Harboe Architects.

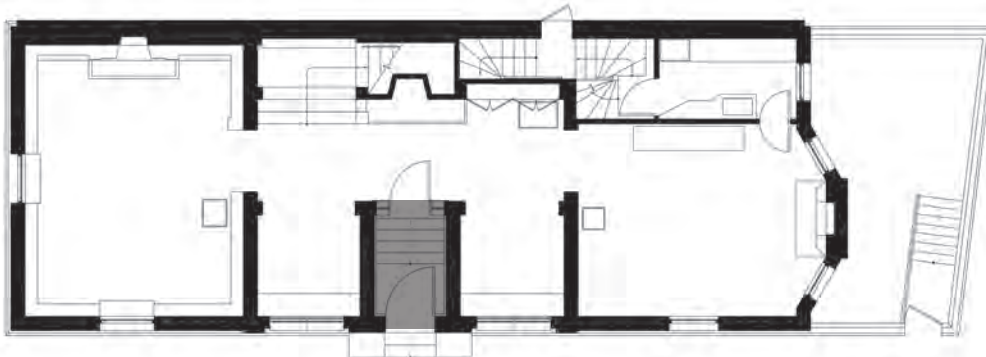


5-102

Right: Ceiling mounted light fixture, 2016, Harboe Architects.



Entry Vestibule (104)



5-103

First floor location plan. Shaded area shows location of Entry Vestibule (104).

Floor

Description

The entry vestibule has tile flooring in a geometric pattern of squares and triangles which was installed during the 1980s SOM renovation.

Condition

The tile flooring is in good condition.

Steps

Description

There are four steps with wood treads and risers that lead up to the door to the Hall.

Condition

The steps are in good condition with some general wear including scratches, scuffs, and nicks.

Walls

Description

The walls have wood paneling with beaded battens to the height of the door head. The wood paneling appears to be original. Above that, the walls are painted plaster with a textured finish. There is a wood crown molding that runs around the top of the walls. The north wall has a round wood patch and a heating vent with a metal grate.

Condition

The wood paneling is in good condition. There are a few scratches and scuff marks on the paneling and some areas where the finish has faded. The painted plaster was repaired in 2014 and is in good condition.

Ceiling

Description

The ceiling is painted plaster with a textured surface from the 1980s SOM renovation.

Condition

The ceiling is in relatively good condition.

Doors

Description

The door into the Hall is an oak paneled door with an oak frame and includes carved wood ornament, wood beading around the panels, leaded glass sidelights and transom, and bronze hardware. The door appears to be original. (For the front door see the description of the East Façade in the Exterior Conditions).

Condition

The door and frame are in good condition. There are some small nicks and scratches on the door and frame. The leaded glass sidelights and transom are in good condition. The finish on the bronze hardware is slightly worn.

Lighting

Description

There is one iron pendant fixture with frosted glass globe in the entry vestibule. According to architect John Eifler, this is the only original light fixture in the house.

Condition

The light fixture appears to be in good condition.

5-104

Left: Entry vestibule looking into Hall, 2016, Harboe Architects.

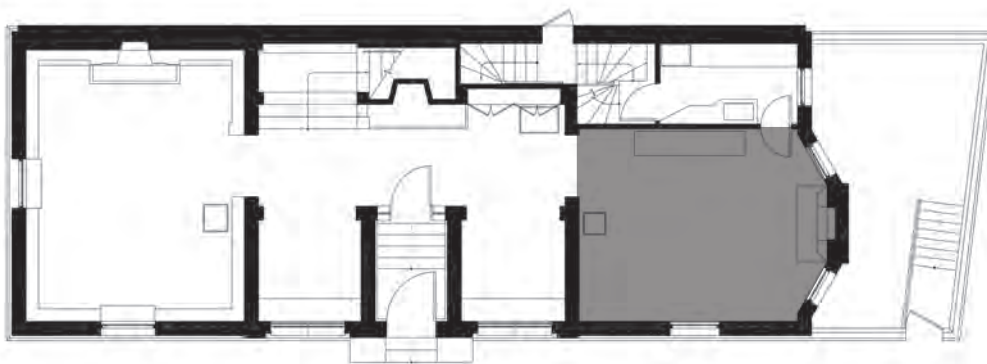


5-105

Right: Pendant light in Entry Vestibule, 2016, Harboe Architects.



Dining Room (106)



5-106

First floor location plan. Shaded area shows location of Dining Room (106).

Floor

Description

There is original oak flooring throughout the Dining Room. There is a bronze floor grate along the north wall just west of the entryway from the Hall to the Dining Room. The floor grate appears to be original.

Condition

The floor is in good condition. There is some general wear including scratches and scuffs, as well as small nicks and separation of wood planks. The bronze grate is in good condition. It is tarnished and has some minor scratches.

Walls

Description

The walls are painted plaster above the wood wainscot. The plaster is not original. The original plaster was completely removed and replaced during the 1980s SOM renovation and has been repaired from time to time in the 2000s.

Condition

Overall, the painted plaster walls are in good condition. There are some small cracks and chips in the plaster and paint.

Ceiling

Description

The ceiling is textured painted plaster. The ceiling plaster is not original and was last replaced during the 1980s SOM renovation. In the center of the ceiling is a round, decorative brass cover plate over the electrical box for a ceiling light. There is a painted metal air conditioning vent near the west wall, and in the northwest corner of the room is a sprinkler head.

Condition

Overall, the painted plaster ceiling is in good condition. There are some small cracks and chips in the plaster and paint.

Doors***Description***

There is a paneled wood door on the east wall that leads into the Butler's Pantry. The door has bronze hardware. There is a small horizontal window in the door at eye level. The door appears to be original.

Condition

The door, window, and frame are in good condition. There are some small nicks and scratches on the door and frame. The finish on the bronze hardware is slightly worn.

Windows***Description***

There are three double hung wood windows in the Dining Room. The wood window on the west wall appears to be original although it has been re-glazed with an I.G. unit. The two windows on the south wall on either side of the fireplace were installed during the 1980s SOM renovation to replicate the original windows that were removed when the south addition was constructed in the 1920s.

Condition

The windows and frames are in good condition. There are small nicks and scratches on the frames and sashes.

Millwork***Description***

The millwork in the Dining Room is Tabascan mahogany, the only room in the house that has mahogany. There is a wainscot with mahogany veneer panels and beaded battens on the lower part of the walls. There is a mahogany cornice with beaded trim around the top of the walls, as well as additional trim at the arched opening to the hall. Some of wood paneling and trim, as well as the cornice on the east wall, were replaced during the 1980s SOM renovation.

Condition

The wood wainscot is in good condition with only minor scratches and nicks. The mahogany veneer on the cornice is warped in multiple locations and there is some separation at joints. Some portions of the cornice appear to be mismatched in color. This may be because some portions were replaced. The buffet is in good condition with a few minor nicks and scratches.

Buffet

Description

On the east wall of the dining room is a mahogany sideboard that was recreated in the S.O.M. renovation. Its dimensions were determined by the outlines of the original sideboard on the floor and walls. It is on a raised platform on the floor and is made up of a section on either side with double mahogany doors and interior shelves for storing dishes. The center area features two small silverware drawers near the top, with three drawers for linens beneath. A small mirrored strip is situated between the top of the buffet and the top of the wainscoting behind it. The buffet is the same stained mahogany color as the rest of the trim in the room and the doors have beaded trim like the rest of the doors in the house.

Condition

The condition is good with one scratch in the center edge of the buffet.

Fireplace

Description

The fireplace has a mahogany mantel with decorative carved ornament, a red Africane marble face, a decorative bronze frame around the opening, and a patterned tile hearth. The terracotta colored tiles on the fireplace hearth were made by the Maw and Co. in England. The fireplace appears to be original.

Condition

The mahogany mantel and marble face are in good condition. The tiles on the hearth are very brittle. There are also several open grout joints in the tile hearth and a crack in the stone floor of the fireplace.

Lighting

Description

There are six brass and plastic Michael Graves designed wall sconces (two each on the east, south, and west walls). These sconces are not original and were added in the 1980s SOM renovation.

Condition

The sconces are in good condition.

5-107

Left: Dining Room looking south at fireplace, 2016, Harboe Architects.



5-108

Right: Dining Room looking northeast, 2016, Harboe Architects.

5-109

Left: Carved wood ornament on fireplace mantel, 2016, Harboe Architects.



5-110

Right: Ceramic tile hearth, 2016, Harboe Architects.

5-111

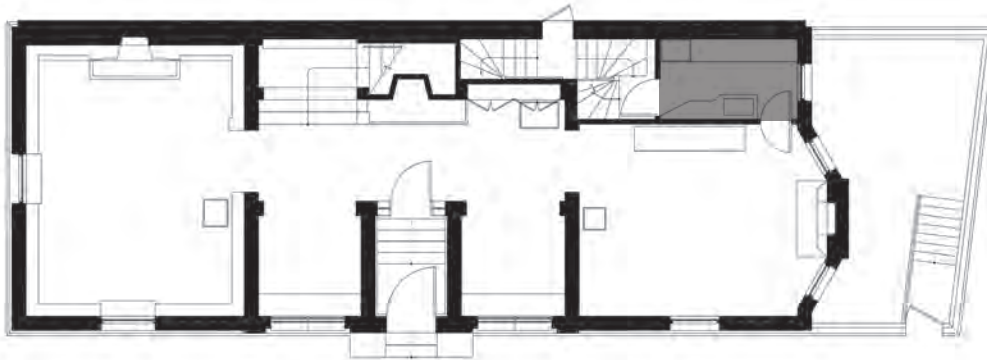
Left: Warped wood frieze, 2016, Harboe Architects.



5-112

Right: Painted plaster and wood trim, 2016, Harboe Architects.

Butler's Pantry (107)



5-113

First floor location plan. Shaded area shows location of Butler's Pantry (107).

Floor

Description

There is original oak flooring throughout the Butler's Pantry.

Condition

The floor is in fair condition. There is an approximately 2" x 2" hole in floor near the south wall. The floor is also worn and there are some scratches and scuffs.

Walls

Description

The walls are covered with painted wood beadboard installed during the 1980s SOM renovation. There is a painted metal grill in the south wall under the window.

Condition

The beadboard is in good condition except for a small section of damaged beadboard under the window sill on the south wall. The metal grill is in good condition.

Ceiling

Description

The ceiling is painted plaster with a textured finish from the 1980s SOM renovation.

Condition

The plaster ceiling is in good condition.

Doors

Description

There are two doors in the Butler's Pantry – a wood paneled door that leads into

the Dining Room and a wood paneled door with frosted glass light that leads into the servant stair. Both doors appear to be original and have bronze hardware.

Condition

The doors are in good condition. There are some small nicks and scratches on the doors and frames. The finish on the bronze hardware is slightly worn.

Windows

Description

There is a double hung wood window with insulated glass on the south wall. This window was installed during the 1980s restoration to replicate the original window that was removed when the south addition was constructed in the 1920s.

Condition

The window is in good condition.

Millwork

Description

The Butler's Pantry has built-in upper and lower painted wood cabinets on the east and west walls. The countertops are wood as well. The upper cabinets have doors with clear glass panels. All of the cabinets have bronze pulls and hinges. The cabinets were installed during the 1980s SOM renovation. At the northeast corner of the Butler's Pantry is a dumbwaiter with wood door that was used to pass food from the basement Kitchen to the Butler's Pantry on the first floor. The dumbwaiter is original. Decorative crown molding with dentils is located at the top of the walls.

Condition

The cabinets are in good condition. There are some nicks and scratches on the surface of the cabinets and countertops. The finish on the bronze pulls is slightly worn. The locking mechanism on the dumbwaiter door does not function properly. The crown molding appears to be in good condition.

Sink

Description

The sink is made of a zinc alloy called "German Silver." It has dual faucets, wood countertop, and a white marble backsplash on the west wall. The sink appears to be original.

Condition

The sink is in fair condition. There are some dents and stains on the sink basin. The goose neck faucets in the sink are not the proper size. Currently they are too close to the back of the sink and splash water on the wooden sink top. Some water damage has occurred to the wooden sink top near the base of the faucets.

Lighting

Description

There are two light fixtures in the Butler's Pantry – a brass pendant light with frosted glass shades and a brass wall sconce above the sink with a frosted glass shade. Neither fixture is original.

Condition

The light fixtures are in good condition.



5-114

Left: Butler's Pantry looking south, 2016, Harboe Architects.



5-115

Right: Butler's Pantry looking north, 2016, Harboe Architects.



5-116

Left: Sink in Butler's Pantry, 2016, Harboe Architects.

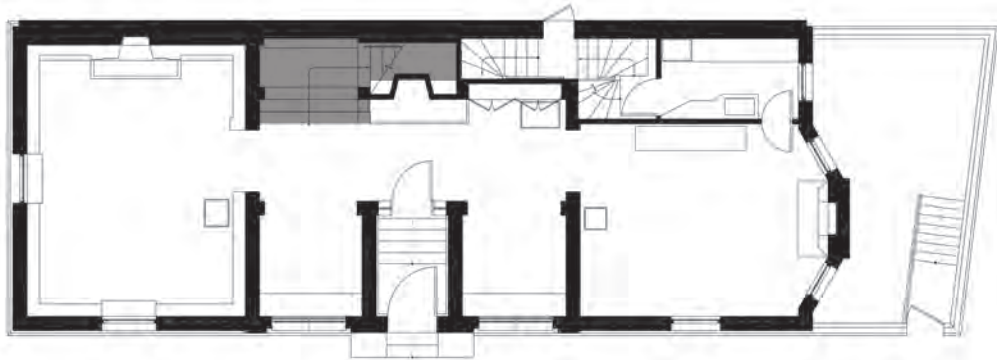


5-117

Right: Light fixture in Butler's Pantry, 2016, Harboe Architects.

Main Stair (109)

5-118
First floor
location plan.
Shaded area
shows location
of Main Stair
(109).



Steps

Description

The stair treads and risers are oak stained to match the wood floor and trim in the Hall and appear to be original. There is a brown stair runner on the flight of steps from the landing to the second floor. The runner is not original.

Condition

The steps are in fair condition. The first three treads that lead up to the landing from the first floor hall are split. The condition of the steps under the runner was not surveyed.

Flooring

Description

There is oak flooring at the first floor landing. The flooring appears to be original.

Condition

The wood flooring is in good condition. There is also some general wear including scratches and scuffs.

Walls

Description

The walls are painted plaster with a textured surface. The plaster is not original. The original plaster was completely removed and replaced during the 1980s restoration. At the first floor landing is a large, shallow niche in the wall suitable for display items.

Condition

The painted plaster walls are in fair to good condition. There are several locations where the paint and/or plaster is chipped.

Ceiling

Description

The ceiling is textured painted plaster. The ceiling plaster is from the 1980s SOM renovation.

Condition

Overall, the painted plaster ceiling is in good condition. There are some small cracks and chips in the plaster and paint.

Railing

Description

The stair rail is wood with a stained finish to match the wood trim in the stair. It is attached to the wall with bronze mounting brackets. This railing was installed during the 1980s SOM renovation.

Condition

The railing is generally in good condition. The finish is slightly worn and there are some scratches. The finish on the mounting brackets is worn.

Millwork

Description

The millwork in the stair is oak and includes the decorative wood newel post with carved ornament, wood trim at the arched opening and niche at the first floor landing, and wood base trim at the stair treads and risers. The millwork appears to be original to the house.

Condition

The millwork is in good condition. There are a few minor nicks and scratches.

Lighting

Description

There is one wall mounted halogen fixture at the first floor landing which was installed in the 1990s so it could be replaced with a lower energy fixture.

Condition

The light fixture is in good condition.

5-119

Left: Stair newel post on first floor, 2016, Harboe Architects.



5-120

Right: Wood stair treads between first floor and landing, 2016, Harboe Architects.



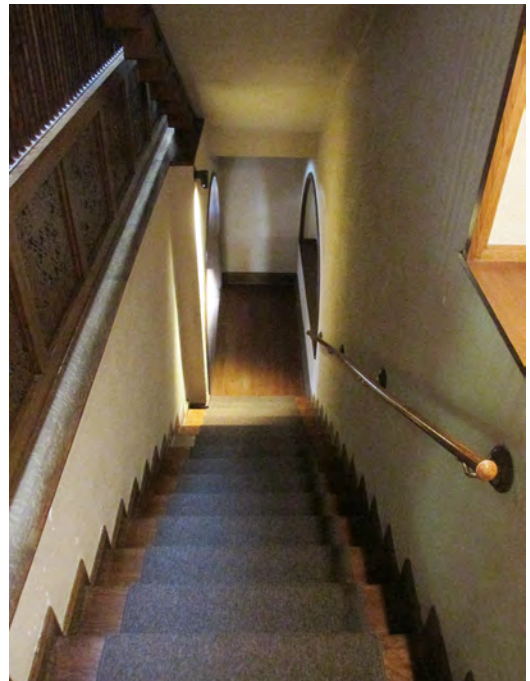
5-121

Left: Looking up stairs from first floor landing to second floor, 2016, Harboe Architects.



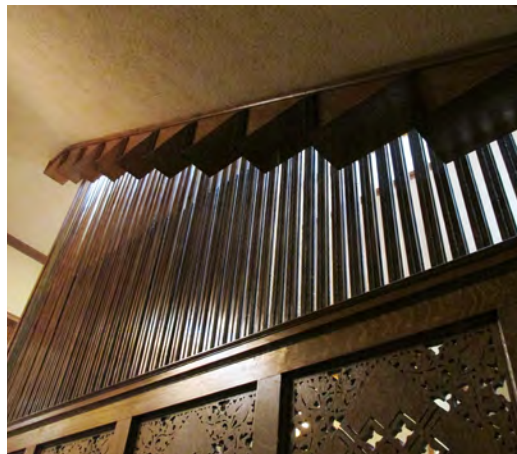
5-122

Right: Looking down stairs from second floor to the first floor landing, 2016, Harboe Architects.



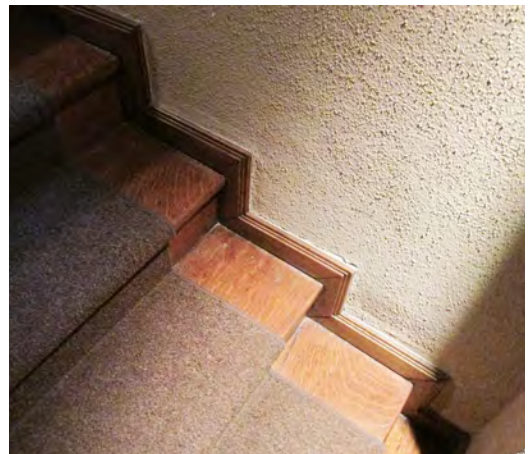
5-123

Left: Wood railing and screen 2016, Harboe Architects.

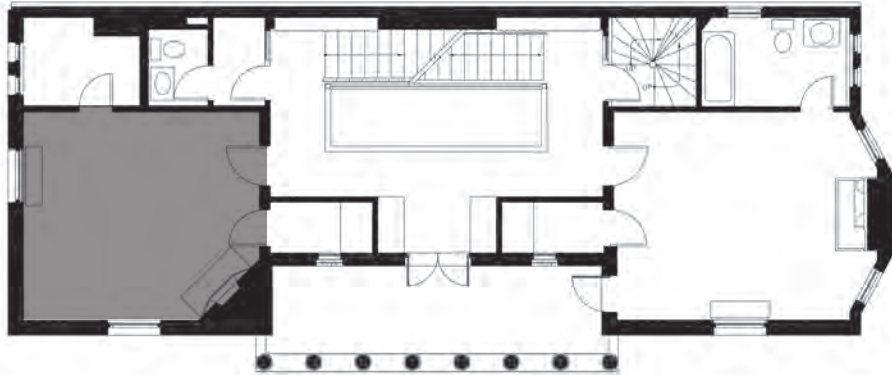


5-124

Right: Stair treads and plaster wall, 2016, Harboe Architects.



Office (201)



5-125

Second floor location plan. Shaded area shows location of Office (201).

Floor

Description

There is brown carpet in the office. The original hardwood flooring is likely below the carpet.

Condition

The carpet is in poor to fair condition. It is heavily worn near the desks.

Walls

Description

The walls are smooth painted plaster. Select areas were patched during the 1980s SOM renovation; however, some original plaster likely still exists in this room.

Condition

The painted plaster walls are in fair to good condition. There are some cracks in the plaster and peeling paint.

Ceiling

Description

The ceiling is painted plaster. There is a painted metal air conditioning register in the ceiling on the southwest side of the room.

Condition

The painted plaster ceiling is in good condition. There are some chips in the paint.

Doors

Description

There are three wood paneled doors with beaded trim – one leads into the second floor hall, another to a closet, and the third door accesses a storage room. The room side of each door is painted. The doors appear to be original.

Condition

The doors are generally in good condition. There are some nicks, scratches, and peeling paint.

Windows

Description

There are two double hung stained wood windows with painted wood frames in the office. The wood window sashes and frames appear to be original although they have been re-glazed with I.G. units.

Condition

The windows and frames are in good condition. There are small nicks and scratches on the frames and sashes.

Millwork

Description

The millwork in the office includes painted wood baseboards, picture rails, and crown molding. The picture rails and crown molding were reintroduced during the 1980s SOM renovation. An oak radiator cabinet is located below the window on the north wall. This cabinet was also installed during the 1980s SOM renovation.

Condition

The wood baseboards, picture rails, crown molding, and radiator cabinet are in good condition with only small nicks and scuffs.

Fireplace

Description

The fireplace has an oak mantel and surround with beaded trim. The face around the opening and the hearth are glazed tile with a pink tint. The fireplace appears to be original.

Condition

The fireplace is in relatively good condition. Some of the tiles are cracked.

Lighting

Description

There is a ceiling mounted brass fixture with frosted glass globe as well as two bronze sconces mounted above the fireplace. The light fixtures are not original.

Condition

The light fixtures are in good condition. The finish on the bronze sconces is tarnished.



5-126

Second floor office looking northwest, 2016, Harboe Architects.

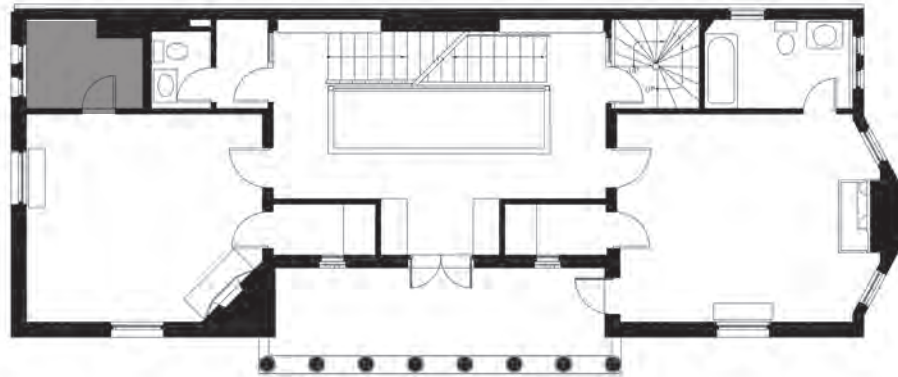


5-127

Fireplace in second floor office, 2016, Harboe Architects.

Storage/Copy Room (202)

5-128
Second floor
location plan.
Shaded area
shows location
of Storage/
Copy Room
(202).



Floor

Description

There is brown carpet in the Storage/Copy Room.

Condition

The carpet is in good condition.

Walls

Description

There is a wainscot of painted vertical tongue and groove wood boards that was installed during the 1980s SOM renovation. The wainscot is capped with decorative wood molding. Above the wainscot the walls are painted plaster.

Condition

The wood wainscot is in good condition with minor nicks, scratches, and scuffs. The painted plaster is in good condition.

Ceiling

Description

The ceiling is painted plaster.

Condition

The ceiling is in good condition.

Doors

Description

There is a painted wood paneled door that accesses the adjacent office. The door appears to be original.

Condition

The door is in good condition. There are some minor nicks and scratches.

Windows

Description

Two wood casement windows with painted wood frames and trim are located on the north wall. The windows appear to be original.

Condition

The windows are in good condition.

Millwork

Description

A built-in wood cabinet is located on the south wall. The cabinet was repositioned from the west wall to the south wall during the 1980s SOM renovation.

Condition

The cabinet is in good condition. There are a few minor nicks, chips, and scratches.

Lighting

Description

A brass and glass sconce is mounted between the windows on the north wall. It was added during the 1980s restoration.

Condition

The sconce is in good condition.

Radiator

Description

There is an exposed radiator on the north wall.

Condition

The radiator is in good condition.

5-129

Left: Storage/
Copy Room
looking north-
east, 2016, Har-
boe Architects.



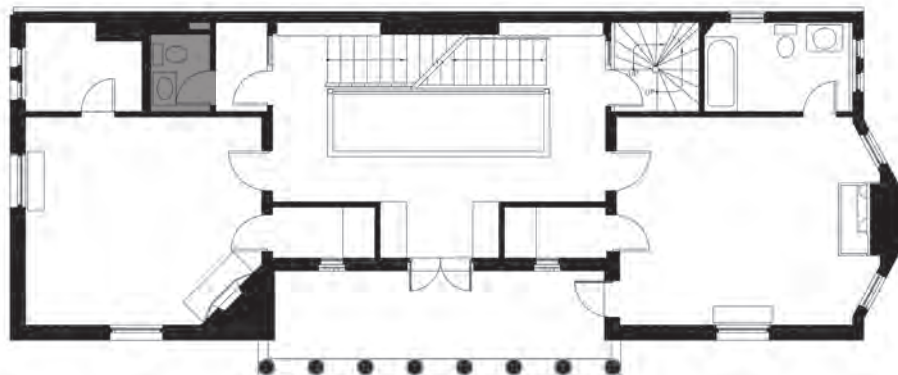
5-130

Right: Bead-
board paneling
in Storage/
Copy Room,
2016, Harboe
Architects.



Toilet Room (203)

5-131
Second floor
location plan.
Shaded area
shows location
of Toilet Room
(203).



Floor

Description

There is hexagonal tile flooring in the bathroom. The tile was added in the 1980s SOM renovation.

Condition

The tiles and grout are stained, but otherwise in good condition.

Walls

Description

There is a wainscot of painted vertical tongue and groove wood boards that was installed in the 1980s SOM renovation. The wainscot is capped with decorative wood molding. Above the wainscot the walls are painted plaster. There is a metal grate on the east wall that covers a radiator.

Condition

The wood wainscot is in good condition with minor nicks, scratches, and scuffs. The painted plaster is in good condition except for a vertical crack on the north wall. The metal grate is in good condition.

Ceiling

Description

The ceiling is painted plaster.

Condition

The ceiling is in good condition.

Doors

Description

There is a painted wood paneled door that accesses the adjacent anteroom.

Condition

The door is in good condition. There are some minor nicks and scratches.

Mirror

Description

There is a painted wood framed mirror from the 1980s renovation above the sink.

Condition

The mirror appears to be in good condition.

Plumbing Fixtures

Description

There is a white porcelain toilet and sink. The sink, which has been refinished, is historic but not original to the house.

Condition

The toilet and sink appear to be in good condition. The plumbing inside the wall needs to be studied further because the pipes can freeze and break, causing floods in the living room/library below.

Lighting

Description

There are wall mounted sconces on each side of the mirror that are not original.

Condition

The sconces are in good condition.

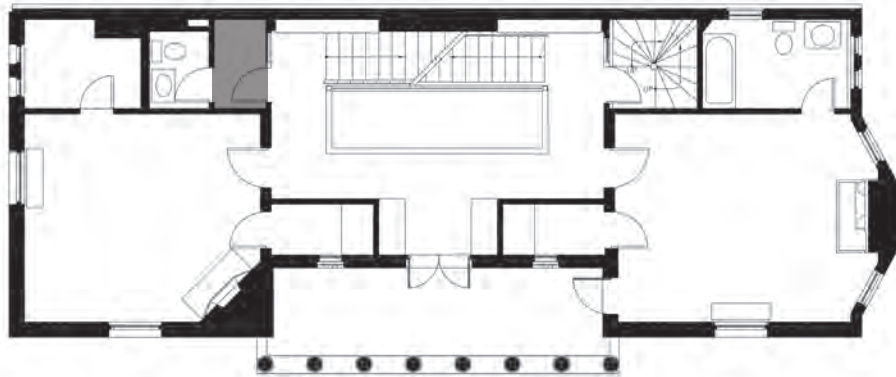


5-132

Second floor
Toilet Room,
2016, Harboe
Architects.

Anteroom (204)

5-133
Second floor
location plan.
Shaded area
shows location
of Telephone
Room (204).



Floor

Description

There is wood flooring in the Anteroom. The flooring appears to be original.

Condition

The flooring is in fair to good condition. There are some scratches and scuffs and the finish is worn.

Walls

Description

There is a wainscot of painted vertical tongue and groove wood boards that was installed during the 1980s SOM renovation. The wainscot is capped with decorative wood molding. Above the wainscot the walls are painted plaster.

Condition

The wood wainscot is in good condition with minor nicks, scratches, and scuffs. The painted plaster is in good condition.

Ceiling

Description

The ceiling is painted plaster.

Condition

The ceiling is in good condition.

Doors

Description

There are two wood paneled doors in the Anteroom. One accesses the Toilet Room

and the other leads into the second floor Stair Hall. The Toilet Room door is painted and was added during the 1980s SOM renovation. The other door appears to be original, painted on the room side and has a stained finish on the hall side.

Condition

The doors are generally in good condition. There are some nicks, scuffs, and chipped paint, especially at edges.

Windows

Description

There is an interior wood framed window with patterned glass on the south wall. The frame is stained on the Stair Hall side and painted on the Anteroom side. The window was installed during the 1980s SOM renovation.

Condition

The window is in good condition.

Millwork

Description

There is a wood counter with drawers mounted on the north wall of the room. This was added during the 1980s SOM renovation.

Condition

The counter is in good condition.

Lighting

Description

There is a sconce mounted on the east wall of the room. The sconce is not original.

Condition

The sconce is in good condition.



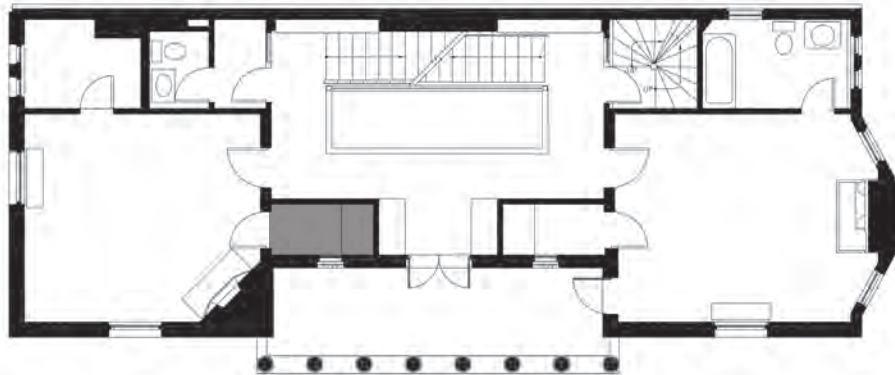
5-134

Looking into Anteroom from second floor hall, 2016, Harboe Architects.

Closet (205)

5-135

Second floor location plan. Shaded area shows location of Closet (205).



Floor

Description

There is brown carpet in the closet. The original hardwood flooring is likely below the carpet.

Condition

The carpet is in good condition.

Walls

Description

The walls are painted plaster.

Condition

The painted plaster walls are in fair to good condition. There are some cracks in the plaster and peeling paint. The closet is unheated.

Ceiling

Description

The ceiling is painted plaster.

Condition

Overall, the painted plaster ceiling is in good condition. There are some small chips in the paint.

Doors

Description

There is a painted wood paneled door in the closet that appears to be original.

Condition

The closet door is in good condition. There are some small chips in the paint.

Windows***Description***

There is a wood casement window with wood frame on the west wall of the closet. The window appears to be original.

Condition

The window is in good condition.

Millwork***Description***

A built-in set of wood shelves and drawers is located on the south wall.

Condition

The wood shelves and drawers are in good condition. There are a few minor nicks, chips, and scratches.

Lighting***Description***

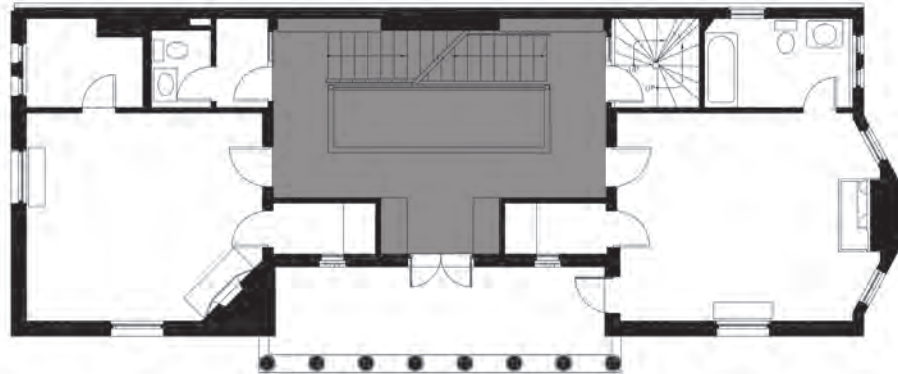
There is a ceiling mounted light in the closet. The light is not original.

Condition

The light fixture is in good condition.

Stair Hall (206)

5-136
Second floor
location plan.
Shaded area
shows location
of Stair Hall
(206).



Floor

Description

The second floor Stair Hall has original oak flooring.

Condition

The oak flooring is in good condition with only some scratches, scuffs, and nicks.

Walls

Description

The walls are painted plaster with a textured surface. The plaster is not original. The original plaster was completely removed and replaced during the 1980s restoration. On each side of the staircase on the east wall is a large, rectangular shallow niche suitable for display items. They are plaster trimmed in oak and have cork boards installed in them for display.

Condition

The walls are in good condition with a few locations where the paint is chipped.

Ceiling

Description

The ceiling is painted plaster with a textured surface. The plaster is not original. The original plaster was completely removed and replaced during the 1980s restoration.

Condition

The ceiling is in relatively good condition. There is some cracked and chipped paint.

Doors

Description

There are four oak paneled doors with bronze hardware and oak frames that access the rooms on the north and south sides of the hall. The doors appear to be original. Leaded glass french doors with an oak frame are located on the east wall and access the balcony. The french doors appear to be original. Non-original wood framed storm doors are located on the interior side of the French doors.

Condition

The oak paneled doors and frames are in good condition. There are some small nicks and scratches on the doors and frames. The french doors are in fair condition with a few nicks and scratches on the wood elements. The glass and coming is in poor condition with some saging comes. The finish on the bronze hardware on all doors is slightly worn. The french doors are difficult to open in humid weather and should be fitted with a better lock.

Window

Description

On the south wall there is an interior wood framed window with patterned glass. It mirrors the window in the anteroom. It is stained on the stair hall side and painted on the servant's stair side. The window was installed during the 1980s SOM renovation.

Condition

The window is in good condition.

Millwork

Description

The millwork in the hall is all oak and includes the baseboards, picture rails, crown molding, benches, and decorative balustrade. The millwork appears to be original except for the picture rails and benches, which were added during the 1980s SOM renovation.

Condition

The millwork is generally in good condition. There are some scratches, scuffs, and nicks, as well as some small separations at joints.

Stairs

Description

The treads and risers are oak. There is a brown stair runner on the flight of steps from the second floor to third floor. The oak treads and risers appear to be original.

Condition

The stairs are in fair condition. The stairs noticeably lean away from the wall (See the Structural Condition Assessment).

Wood Stair Screen

Description

There is a screen of wood spindles that spans from the balustrade to the ceiling, partially concealing the stair that rises behind it to the third floor. The wood spindles appear to be original.

Condition

The wood spindles are in good condition.

Lighting

Description

There are two brass and plastic Michael Graves designed wall sconces. These sconces are not original.

Condition

The sconces are in good condition.

5-137

Left: Second floor Stair Hall looking north, 2016, Harboe Architects.

5-138

Right: Second floor Stair Hall looking south, 2016, Harboe Architects.





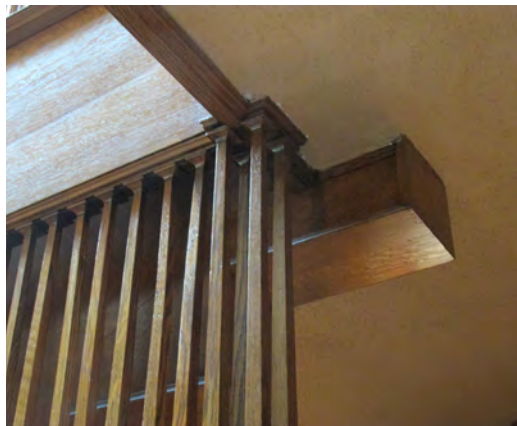
5-139

Left: Railing with decorative baluster panels, 2016, Harboe Architects.



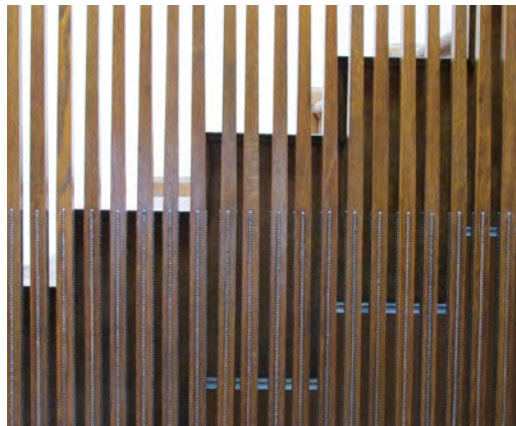
5-140

Right: French doors to balcony and flanking benches, 2016, Harboe Architects.



5-141

Left: Detail at top of wood screen, 2016, Harboe Architects.



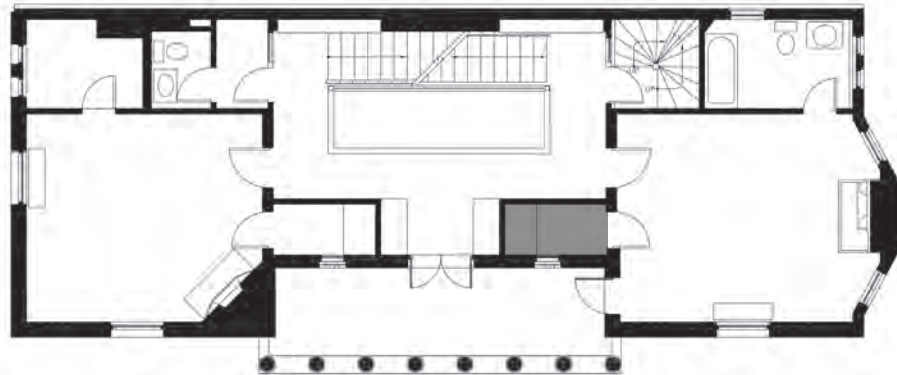
5-142

Right: Stair stringer rising behind wood spindles, 2016, Harboe Architects.

Closet (208)

5-143

Second floor location plan. Shaded area shows location of Closet (208).



Floor

Description

There is brown carpet in the closet. The original hardwood flooring is likely below the carpet.

Condition

The carpet is in good condition.

Walls

Description

The walls are painted plaster.

Condition

The painted plaster walls are in fair to good condition. There are some cracks in the plaster and peeling paint. The closet is unheated.

Ceiling

Description

The ceiling is painted plaster.

Condition

Overall, the painted plaster ceiling is in good condition. There are some small chips in the paint.

Doors

Description

There is a painted wood paneled door in the closet.

Condition

The closet door is in good condition. There are some small chips in the paint.

Windows

Description

There is wood casement window with wood frame on the west wall of the closet.

Condition

The window is in good condition.

Millwork

Description

Built-in shelves and drawers cabinet are located on the north wall.

Condition

The shelves and drawers are in good condition, but the drawers are difficult to open. There are also a few minor nicks, chips, and scratches.

Lighting

Description

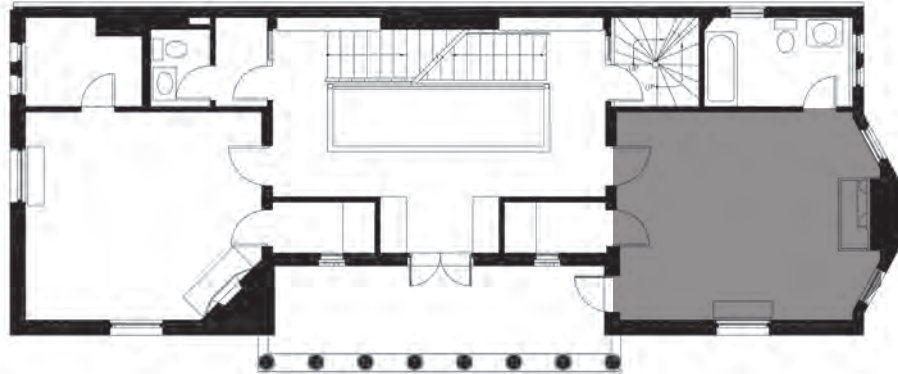
There is a ceiling mounted light in the closet. The light fixture is not original.

Condition

The light fixture is in good condition.

Office (209)

5-144
Second floor
location plan.
Shaded area
shows location
of the Office
(209).



Floor

Description

There is brown carpet in the office. The original hardwood flooring is likely below the carpet.

Condition

The carpet is in poor condition near the desk where it is heavily worn.

Walls

Description

The walls are smooth painted plaster. Select areas were patched during the 1980s SOM renovation; however, some original plaster still exists in this room. On the east wall is a painted wood access panel for the plumbing in the adjacent bathroom.

Condition

The painted plaster walls are in fair to good condition. There are some holes, cracks in the plaster and peeling paint.

Ceiling

Description

The ceiling is painted plaster, which was re-plastered during the 1980s SOM renovation. The air conditioning register in the ceiling on the west side of the room was removed because the screw holes used to secure it were stripped and the vent was in danger of falling.

Condition

Overall, the painted plaster ceiling is in good condition. There are some small chips in the paint.

Doors

Description

There are three wood paneled doors – one leads into the second floor hall, another to a closet, and the third door accesses a bathroom. The room side of each door is painted and has beaded trim. The doors appear to be original. There is also a leaded glass door with oak frame on the north wall that accesses the balcony. The leaded glass door appears to be original. A wood framed storm door installed in 2001 is located on the interior side of the leaded glass door.

Condition

The doors are generally in good condition. There are some nicks, scratches, and peeling paint. The leaded glass door is in poor condition. It does not close properly and some of the glass panes are cracked. The storm door also does not close properly.

Windows

Description

There are three double hung stained wood windows with painted wood frames in the office. The wood window sash and frame in the west window appear to be original although it has been re-glazed with an I.G. unit. The two windows on the south wall were installed during the 1980s SOM renovation to replicate windows that were there prior to the 1920s renovation.

Condition

The windows and frames are in fair condition. There are also small nicks and scratches on the frames and sashes. The glass is cracked in the lower sash of the southwest window.

Millwork

Description

The millwork in the office includes painted wood baseboards, picture rails, and crown molding. An oak radiator cabinet is located below the window on the west wall. The picture rails, crown molding, and radiator cabinet are from the 1980s SOM renovation.

Condition

The wood baseboards, picture rails, crown molding, and radiator cabinet are in good condition with only small nicks and scuffs.

Fireplace

Description

The fireplace has an original birds-eye maple mantel and surround with a stained finish. To the right of the fireplace is a wood framed glass mirror that appears to be original. The face around the opening and the hearth are yellow glazed tiles.

Condition

The fireplace is in fair condition. Many of the tiles are crazed and cracked. The stone floor in the fireplace is cracked. The mantel and mirror are in good condition.

Lighting

Description

There is a ceiling mounted brass fixture with frosted glass globe as well as two brass sconces mounted on each side of the window on the west wall. These fixtures are not original.

Condition

The light fixtures are in good condition.

5-145

Left: Office looking southeast, 2016, Harboe Architects.



5-146

Right: Office looking north, 2016, Harboe Architects.



5-147

Left: Fireplace hearth in Office, 2016, Harboe Architects.

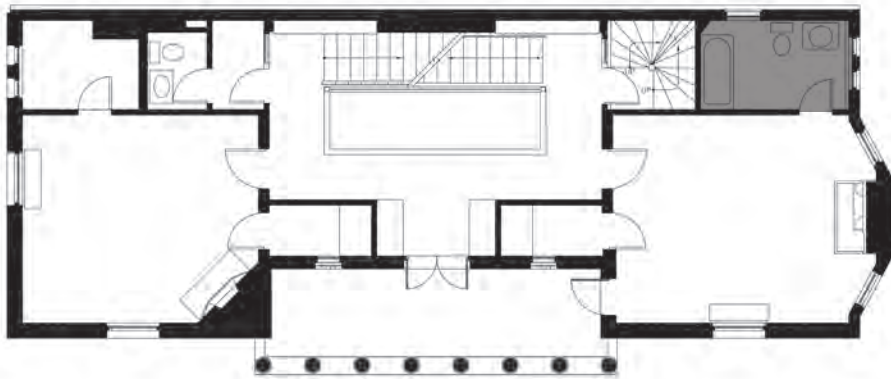


5-148

Right: Peeling paint on north wall, 2016, Harboe Architects.



Bathroom (210)



5-149

Second floor location plan. Shaded area shows location of Bathroom (210).

Floor

Description

The Bathroom has white hexagonal tile flooring from the 1920s renovation.

Condition

The floor is in fair condition. There is a large crack in the center of the floor. The crack appears to be stable but should continue to be monitored.

Walls

Description

The lower two-thirds of the walls are clad in white glazed subway tile from the 1920s renovation. The upper one-third of the walls are painted plaster.

Condition

The tile is in relatively good condition. A few of the tiles are cracked. The painted plaster walls are in good condition.

Ceiling

Description

The ceiling is painted plaster, likely from the 1920s renovation.

Condition

The ceiling is in good condition.

Doors

Description

There is a painted wood paneled door in the bathroom that appears to be original.

Condition

The bathroom door is in good condition. There are some small chips in the paint.

Windows***Description***

Two wood casement windows with glue chipped glass and painted wood frames and trim are located on the south wall. These windows were installed in the 1980s SOM renovation. There is also a double-hung window on the east wall. The window on the east wall was added in the 1920s renovation.

Condition

The windows are in good condition.

Mirrored Medicine Cabinet***Description***

There is a 1920s painted metal medicine cabinet with mirror above the sink.

Condition

The mirror appears to be in good condition. The paint is worn off on the metal frame. The door on the cabinet does not close because the locking mechanism is broken.

Plumbing Fixtures***Description***

There is a white porcelain toilet, sink, and bathtub. These fixtures date from the renovations completed in the 1920s.

Condition

The toilet, sink, and bathtub are in good condition.

Lighting***Description***

There are two porcelain wall sconces on either side of the medicine cabinet above the sink. These sconces likely date from the 1920s. There is also a ceiling mounted fixture and exhaust fan/vent.

Condition

The light fixtures appear to be in good condition. The vent fan needs to be replaced.



5-150
Left: Toilet and sink in second floor Bathroom, 2016, Harboe Architects.



5-151
Right: Second floor Bathroom looking south-east, 2016, Harboe Architects.



5-152
Left: Bathtub in second floor Bathroom, 2016, Harboe Architects.



5-153
Right: Crack in tile floor, 2016, Harboe Architects.



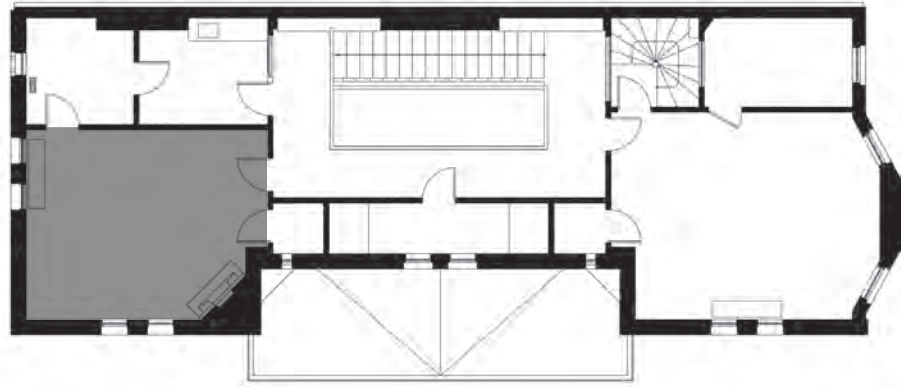
5-154
Left: Wall tile in second floor Bathroom, 2016, Harboe Architects.



5-155
Right: Bathroom wall sconce, 2016, Harboe Architects.

Office (301)

5-156
Third floor location plan. Shaded area shows location of the Office (301).



Floor

Description

There is grey carpet in the office. The original hardwood flooring is likely below the carpet.

Condition

The carpet is in fair condition. It is significantly worn near the desks.

Walls

Description

The walls are painted plaster. The top of the wall is coved at the ceiling. The walls were re-plastered during the 1980s SOM renovation.

Condition

The painted plaster walls are in good condition. There are some minor cracks and chipped paint.

Ceiling

Description

The ceiling is painted plaster. There is a painted metal air conditioning register in the ceiling on the west side of the room. The ceiling was re-plastered during the 1980s SOM renovation.

Condition

Overall, the painted plaster ceiling is in good condition. There are some small chips in the paint.

Doors

Description

There are three wood paneled doors – one leads into the third floor hall, another to a closet, and the third door accesses a storage room. The room side of hall door is painted. The other two doors are painted on both sides. The doors were designed to match the original doors in the house and installed during the 1980s SOM renovation.

Condition

The doors are generally in good condition. There are some nicks, scratches, and chipped paint.

Windows

Description

There are four small, wood casement windows with painted wood frames in the office which were added during the 1980s SOM renovation to match the original windows.

Condition

The windows and frames are in fair to good condition. There are small nicks and scratches on the frames and sashes. The windows also do not close properly when humidity levels are high.

Millwork

Description

The millwork in the office includes painted wood baseboards and a non-original oak radiator cabinet designed for the 1980s SOM renovation located below the windows on the north wall.

Condition

The wood baseboards and radiator cabinet are in good condition with only small nicks and scuffs.

Fireplace

Description

The fireplace has what appears to be an original oak mantel and surround. The face around the opening and the hearth are red glazed tile.

Condition

The fireplace is in relatively good condition. The glazing is worn off on some of the tiles. The concrete floor of the fireplace is cracked.

Lighting

Description

There is a ceiling mounted brass fixture with frosted glass globe as well as two bronze sconces mounted on the fireplace surround. The light fixtures were added during the 1980s SOM renovation.

Condition

The light fixtures are in good condition. The finish on the bronze sconces is tarnished.

5-157

Left: Third floor Office looking northwest, 2016, Harboe Architects.



5-158

Right: Third floor Office looking south, 2016, Harboe Architects.

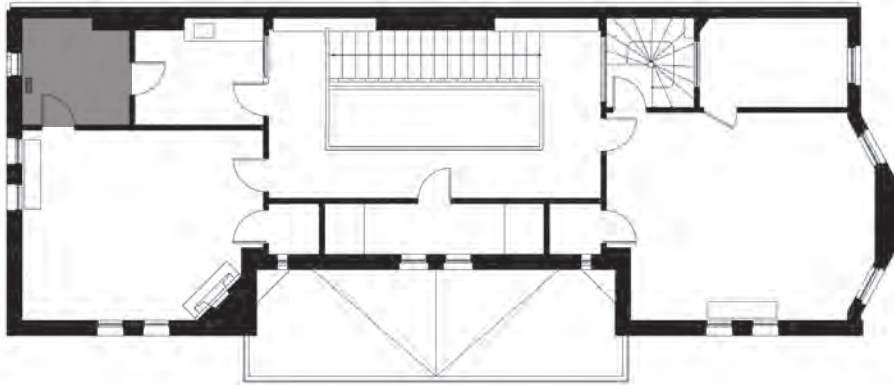


5-159

Third floor Office fireplace, 2016, Harboe Architects.



Storage (302)



5-160

Third floor location plan. Shaded area shows location of Storage Room (302).

Floor

Description

There is grey carpet in the Storage Room.

Condition

The carpet is in fair condition.

Walls

Description

There is a wainscot of painted vertical tongue and groove wood boards up to the height of the door head that was installed during the 1980s SOM renovation. The wainscot is capped with decorative wood molding. Above the wainscot the walls are painted plaster.

Condition

The wood wainscot is in good condition with minor nicks, scratches, and scuffs. The painted plaster is in good condition.

Ceiling

Description

The ceiling is painted plaster and coved to meet the north wall.

Condition

The ceiling is in good condition.

Doors

Description

There are two painted wood paneled doors, one that accesses the adjacent office and another that leads into the storage room (303) directly to the south. The doors appear to be original.

Condition

The doors are in good condition. There are some minor nicks and scratches.

Windows

Description

A wood casement window with painted wood frame and trim is located on the north wall. The window was installed in the 1980s renovation to match the original window in this location.

Condition

The window is in good condition.

Lighting

Description

There is a ceiling mounted brass fixture with frosted glass globe that was installed during the 1980s renovation.

Condition

The light fixture is in good condition.

5-161

Left: Storage
Room window,
2016, Leslie
Schwartz.

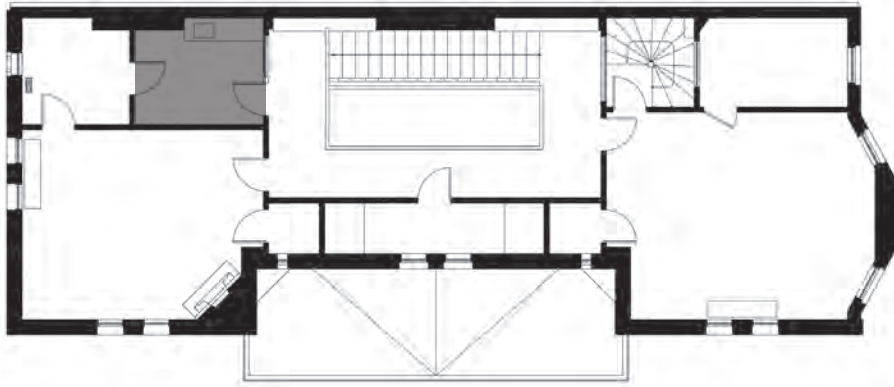


5-162

Right: Storage
Room, 2016,
Harboe Archi-
tects.



Storage (303)



5-163

Third floor location plan. Shaded area shows location of Storage Room (303).

Floor

Description

There is wood flooring in the storage room that appears to be original.

Condition

The wood flooring is in good condition. There are some nicks and scratches and the finish is worn.

Walls

Description

The walls are painted textured plaster. The walls were skim coated during the 1980s SOM renovation.

Condition

The painted plaster walls are in good condition. There is some chipped paint especially at edges.

Ceiling

Description

The ceiling is painted plaster that was skim coated during the 1980s SOM renovation.

Condition

The ceiling is in fair condition. There is some cracking and delamination of the plaster skim coat around the frame for the glass laylights.

Doors

Description

There are two wood paneled doors in the Storage Room. The door that accesses

the adjacent storage room is painted and the door that leads into the second floor Stair Hall is painted on the room side and has a stained finish on the hall side. The doors appear to be original.

Condition

The doors are generally in good condition. There are some nicks, scuffs, and chipped paint, especially at edges.

Windows

Description

There is an interior wood framed window with patterned glass on the south wall. The frame is stained on the Stair Hall side and painted on the Storage Room side. The window was installed during the 1980s SOM renovation.

Condition

The window is in good condition.

Sink

Description

There is a counter with sink and lower cabinet on the east wall of the room. The sink and counter were installed during the 1980s SOM renovation.

Condition

The sink, counter, and base cabinet are in good condition.

Lighting

Description

In the center of the ceiling is a wood frame that holds three patterned glass laylights. There are fluorescent lights above the laylights. The wood frame, glass laylights, and fluorescent lighting were installed during the 1980s SOM renovation.

Condition

The laylights are in good condition. The wood frame is in good condition. There is cracked/chipped paint on the frame.



5-164

Left: Storage Room looking north, 2016, Harboe Architects.



5-165

Upper Right: Glass panel at ceiling, 2016, Harboe Architects.



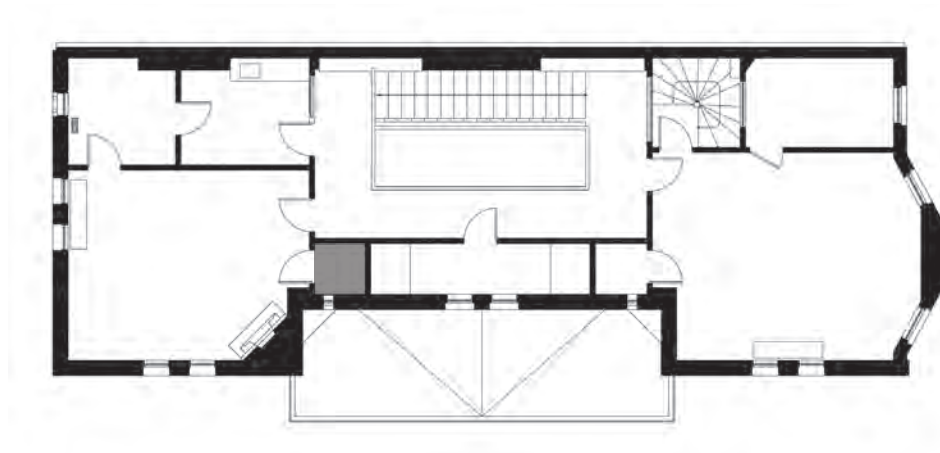
5-166

Lower Right: Peeling paint at ceiling, 2016, Harboe Architects.

Closet (304)

5-167

Third floor
location plan.
Shaded area
shows location
of Closet (304).



Floor

Description

There is grey carpet in the Closet.

Condition

The carpet is in moderately worn and in fair condition.

Walls

Description

The walls in the closet are painted plaster. The wall is coved at the ceiling on the west side.

Condition

The plaster is water damaged in the northwest corner of the closet. This is likely due to a leaking internal downspout. The remaining plaster appears to be in good condition.

Ceiling

Description

The ceiling is painted plaster.

Condition

The ceiling is in good condition.

Doors

Description

There is an original painted wood paneled door in the closet.

Condition

The closet door is in good condition. There are some minor nicks and chipped paint.

Windows

Description

There is an original, narrow casement window with a painted wood frame on the west wall.

Condition

The window is in good condition.

Lighting

Description

There is a ceiling mounted brass fixture with frosted glass globe. The light fixture was installed during the 1980s SOM renovation.

Condition

The light fixture is in good condition.

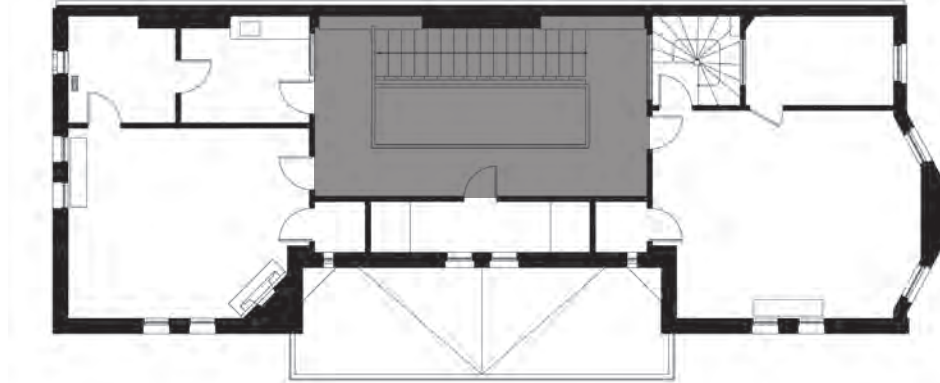


5-168

Water damaged plaster in the Closet, 2016, Harboe Architects.

Stair Hall (305)

5-169
Third floor location plan. Shaded area shows location of Stair Hall (305).



Floor

Description

The third floor Stair Hall has oak flooring. The flooring appears to be original.

Condition

The oak flooring is in fair condition. There is water damage to the floor at the top of the stairs due to leaks in the southeast corner of the skylight. There is also some general wear including scratches, scuffs, and nicks.

Walls

Description

The walls are painted plaster with a textured surface. On each side of the staircase on the east wall is a large, rectangular shallow niche suitable for display items. They are plaster trimmed in oak and have cork boards installed in them for display. The walls were completely re-plastered during the 1980s SOM renovation.

Condition

The painted plaster walls are in good condition. There are a few locations where the paint is cracked or chipped.

Ceiling

Description

The ceiling is painted plaster with a textured surface. There is an air conditioning vent in the southwest corner. The ceiling was completely re-plastered during the 1980s SOM renovation.

Condition

The ceiling is in relatively good condition. There is some cracked and chipped paint.

Doors***Description***

There are four oak paneled doors with oak frames that access the rooms on the north, west, and south sides of the hall. All of the doors have bronze hardware. The doors appear to be original.

Condition

The oak paneled doors and frames are in good condition. There are some small nicks and scratches on the doors and frames. The finish on the bronze hardware on all doors is slightly worn.

Windows***Description***

There are wood framed windows with patterned glass on the north and south walls. The north window is in a stained oak frame and the south window is oblong with a stained oak frame. These windows are from the 1980s SOM renovation and based on evidence discovered that windows were originally in these locations.

Condition

The windows are in good condition.

Millwork***Description***

The millwork in the hall is all oak and includes the baseboards, picture rails, crown molding, and trim around the skylight, windows, and two niches in the east wall. Much of the millwork, including the picture rails and trim around the skylight, windows, and niches, is from the 1980s SOM renovation.

Condition

The millwork is generally in good condition. There are some scratches, scuffs, and nicks, as well as some small separations at joints. There are also splits in the wood trim on the east wall.

Railing***Description***

There is a wood railing with spindles that surrounds the opening to the first and second floors below. The wood railing appears to be original.

Condition

The wood railing and spindles are in good condition.

Skylight***Description***

There is a wood framed skylight with wire reinforced glass laylights at the ceiling in the Stair Hall. The skylight was reconstructed in the 1980s SOM renovation.

Condition

The wood framing and glass laylights appear to be in relatively good condition. There is a leak at the south end of the skylight. Leaves blow through vents in the skylight and land on the glass lay lights creating issues when the panels are removed for cleaning.

Lighting***Description***

There are two brass and plastic Michael Graves designed wall sconces on the west wall and surface mounted fixtures in each of the niches on the east wall. These fixtures are not original.

Condition

The light fixtures are in good condition.



5-170

Left: Third floor stair hall looking northeast, 2016, Harboe Architects.



5-171

Right: Third floor stair hall wood railing, 2016, Harboe Architects.



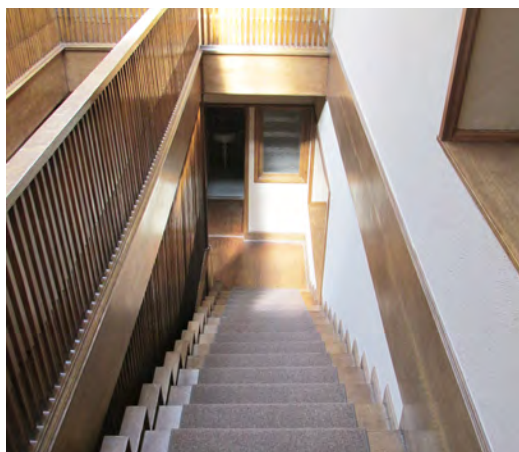
5-172

Left: Third floor stair hall looking south, 2016, Harboe Architects.



5-173

Right: Third floor stair hall wood railing, 2016, Harboe Architects.



5-174

Left: Third floor stair hall looking down the stairs to the second floor, 2016, Harboe Architects.

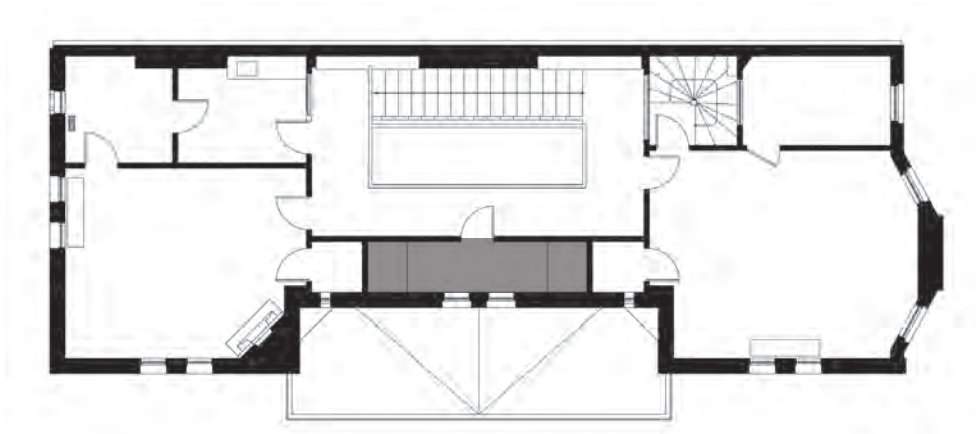


5-175

Right: Third floor stair hall looking south, 2016, James Caulfield.

Linen Closet (306)

5-176
Third floor
location plan.
Shaded area
shows location
of Linen Closet
(306).



Floor

Description

There is oak flooring in the linen closet. The flooring appears to be original.

Condition

The oak flooring is in good condition. There are a few scratches and scuffs.

Walls

Description

The walls are painted plaster.

Condition

The walls are in relatively good condition. There are some scratches as well as some chipped/peeling paint.

Ceiling

Description

The ceiling is painted plaster.

Condition

The ceiling is in good condition.

Doors

Description

There is one wood paneled door that opens into the third floor Stair Hall (305). This door has a stained finish on the hall side and is painted on the room side. The door appears to be original.

Condition

The door is in fair condition. There are a few nicks, scuffs, and chipped paint. The lockset on the door does not allow it to close and latch.

Windows***Description***

There are two small wood framed casement windows in the Linen Closet. These windows were installed during the 1980s SOM renovation to replicate the original windows in this location.

Condition

The windows are in good condition.

Millwork***Description***

There are built in painted wood drawers on the north and south walls of the Linen Closet. These drawers appear to be original.

Condition

The drawers are in fair condition. There are a few small nicks and chips in the paint surface. The drawers are very difficult to open and close.

Lighting***Description***

There is a ceiling mounted brass fixture with frosted glass globe that was installed during the 1980s SOM renovation.

Condition

The light fixture is in good condition.

5-177

Left: Linen Closet looking south, 2016, Harboe Architects.

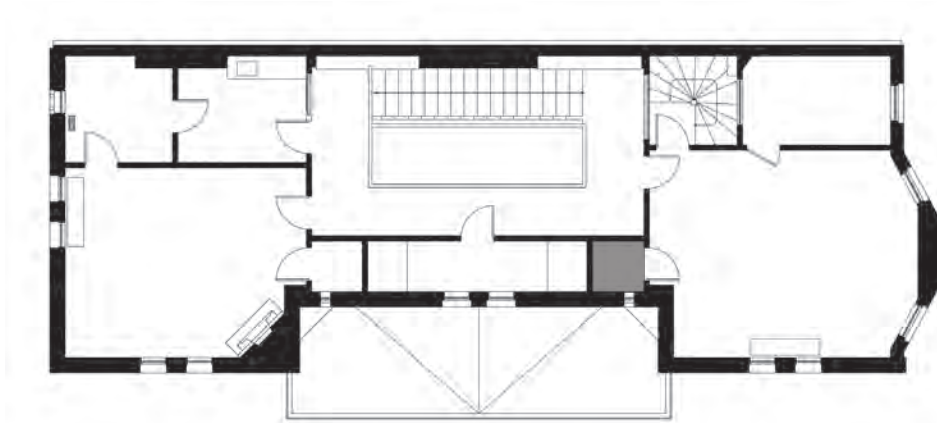


5-178

Right: Linen Closet looking north, 2016, Harboe Architects.



Closet (307)



5-179

Third floor location plan. Shaded area shows location of Closet (307).

Floor

Description

There is grey carpet in the Closet.

Condition

The carpet is moderately worn and in fair condition.

Walls

Description

The walls in the closet are painted plaster. The wall is coved at the ceiling on the west side.

Condition

The plaster appears to be in relatively good condition.

Ceiling

Description

The ceiling is painted plaster.

Condition

The ceiling is in good condition.

Doors

Description

There is a painted wood paneled door in the closet that appears to be original.

Condition

The closet door is in good condition. There are some minor nicks and chipped paint.

Windows

Description

There is anarrow casement window with a painted wood frame on the west wall. The window appears to be original.

Condition

The window is in good condition.

Lighting

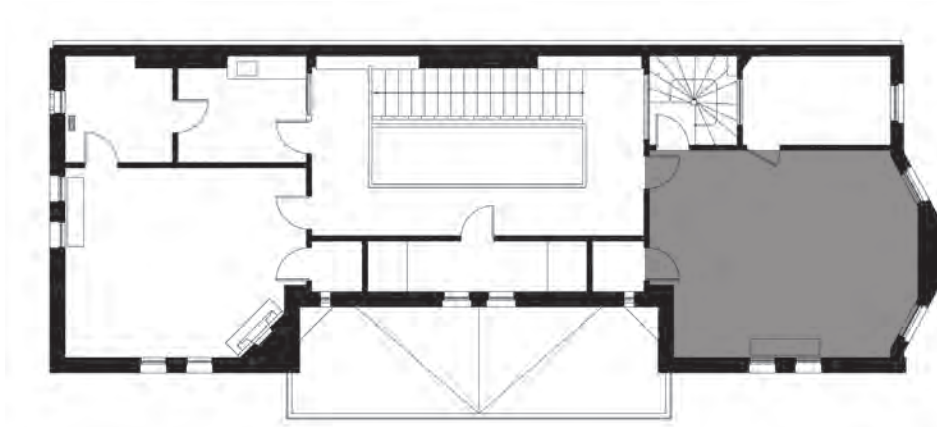
Description

There is a ceiling mounted brass fixture with frosted glass globe. The light fixture is not original.

Condition

The light fixture is in good condition.

Office (308)



5-180

Third floor
location plan.
Shaded area
shows location
of Office(308).

Floor

Description

There is grey carpet in the Office. The original wood floor is likely under the carpet.

Condition

The carpet is in moderately worn and in fair condition.

Walls

Description

The walls are painted textured plaster. The top of the wall is coved at the ceiling. The walls were re-plastered during the 1980s SOM renovation. The cove was also added at this time to mimic the cove in the north office (301).

Condition

The painted plaster walls are in fair condition. There are several locations where the paint is cracked or peeling. There is also blistering paint near the top of the south wall. This is likely caused by moisture in the wall. There is a large vertical crack in the east wall above the door to the storage room.

Ceiling

Description

The ceiling is painted textured plaster. The metal air conditioning register is missing and there is a hole in the ceiling on the west side of the room. The ceiling was re-plastered during the 1980s SOM renovation.

Condition

Overall, the painted plaster ceiling is in good condition. The plaster and paint around the opening where the register was located is chipped and the ceiling is slightly soiled in this area.

Doors***Description***

There are four wood paneled doors – one leads into the third floor hall, another to the closet, a third door accesses a storage room, and a fourth door leads into the servant stair. The room side of hall door is painted. The other three doors are painted on both sides. The doors all appear to be original.

Condition

The doors are generally in good condition. There are some nicks, scratches, and chipped paint.

Windows***Description***

There are four small casement windows with painted wood sashes and frames in the office – two on the south wall and two on the west wall. These windows were installed during the 1980s SOM renovation to replicate the original windows in these locations.

Condition

The windows and frames are in fair condition. There are small nicks and scratches on the frames and sashes. Depending on humidity levels, the windows do not always close properly and the locking hardware is difficult to manage.

Millwork***Description***

The millwork in the office includes painted wood baseboards. The radiator below the windows on the west wall is covered by a painted wood cabinet that was designed for the 1980s SOM renovation.

Condition

The wood baseboards and radiator cabinet are in good condition with only small nicks and scuffs.

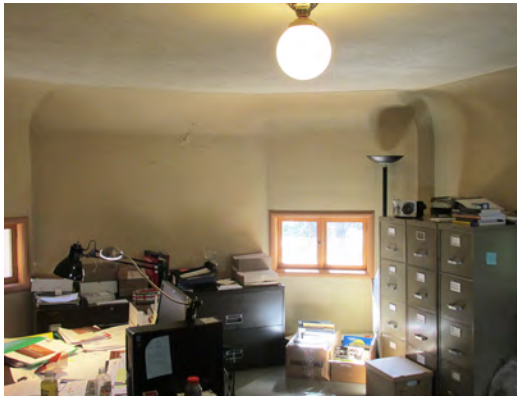
Lighting

Description

There is a non-original ceiling mounted brass light fixture with frosted glass globe.

Condition

The light fixtures are in good condition.



5-181

Left: Third floor Office looking southwest, 2016, Harboe Architects.



5-182

Right: Third floor Office looking south, 2016, Harboe Architects.



5-183

Left: Water damaged plaster on south wall, 2016, Harboe Architects.



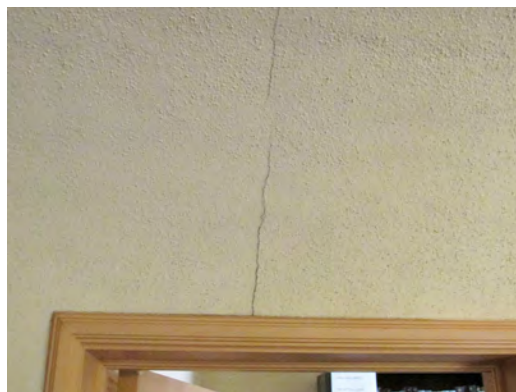
5-184

Right: Peeling paint around window frame, 2016, Harboe Architects.



5-185

Left: Missing A/C register cover, 2016, Harboe Architects.

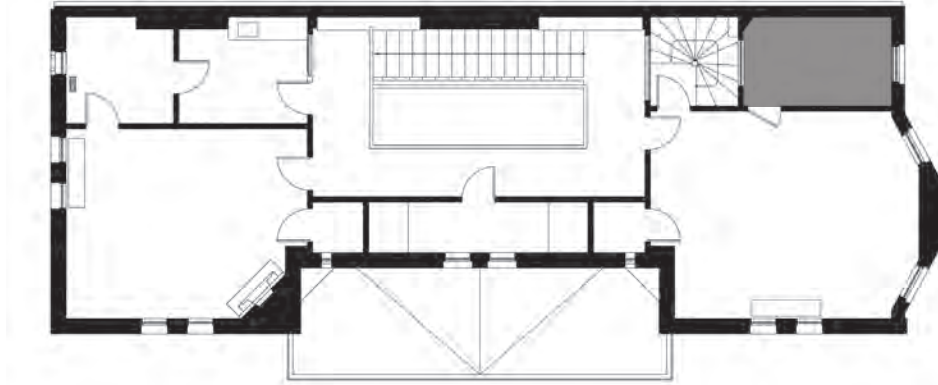


5-186

Right: Crack in wall above door to storage room, 2016, Harboe Architects.

Storage (309)

5-187
Third floor
location plan.
Shaded area
shows location
of Storage
Room (309).



Floor

Description

There is grey carpet in the Closet.

Condition

The carpet is moderately worn and in fair condition.

Walls

Description

The walls are painted plaster. There are painted wood baseboards at the bottom of the walls. The walls were re-plastered during the 1980s SOM renovation.

Condition

The walls are in fair condition. There are lines of peeled paint on the south wall below the window and on the adjacent west wall. It appears that some object scraped against the wall in this location.

Ceiling

Description

The ceiling is painted plaster. The ceiling was re-plastered during the 1980s SOM renovation.

Condition

The plaster ceiling is in good condition.

Doors

Description

There is a painted wood paneled door in the storage room that appears to be original.

Condition

The door is in good condition. There are some minor nicks and chipped paint.

Windows

Description

There is a clear glass interior window with painted wood sash and frame on the north wall. On the south wall is a pair of small wood framed casement windows. The windows were all installed during the 1980s SOM renovation to replicate original windows in these locations.

Condition

The windows are in good condition.

Lighting

Description

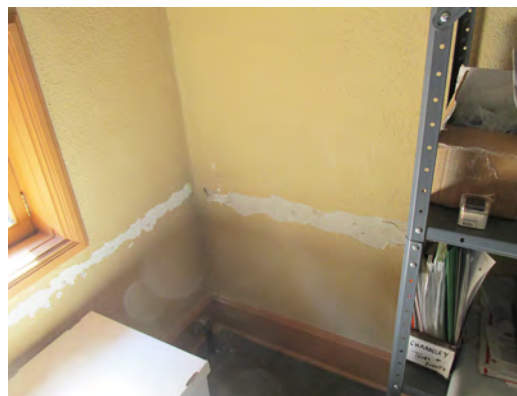
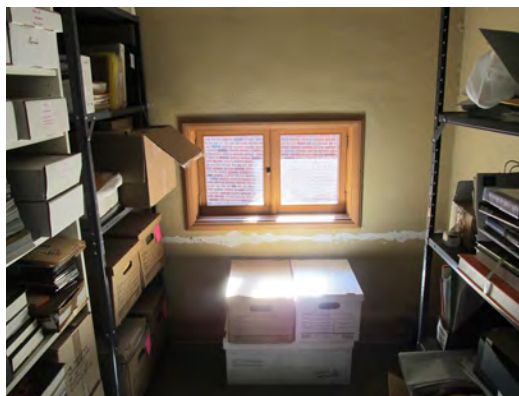
There is a ceiling mounted brass light fixture with frosted glass globe that was installed during the 1980s SOM renovation.

Condition

The light fixtures are in good condition.

Additional Notes

This room is extremely cold in the winter and needs to be reconnected to the heating system. Its only radiator was removed at some point.



5-188

Left: Storage Room looking south, 2016, Harboe Architects.

5-189

Right: Damage to painted plaster walls, 2016, Harboe Architects.

STRUCTURAL CONDITION ASSESSMENT

General Structure

Description

The 3-story building was built in 1892 as a private residence and includes a full basement and sidewalk/coal vault. It is largely rectangular in plan and symmetrical in the north/south direction. The roof is primarily a low slope hipped roof with a central flat roof portion where there is a skylight. The skylight is located directly above the central atrium which is open down to the 1st floor. The 1st floor is elevated about 4 ft. above the surrounding grade.

The structure of the building appears to be consistent with what is historically customary for buildings of similar age, location, and use. The structure generally consists of wood floor and roof framing supported by brick masonry exterior bearing walls and apparently brick masonry and/or wood stud interior bearing walls. The foundations are rubble stone foundation walls with footings. There is now a concrete slab-on-grade in the basement and the lid of the sidewalk vault, which was rebuilt in 2002, utilizes a concrete topping slab and waterproofing system on top of a reinforced concrete slab. As there are no original drawings or renovation drawings which substantively describe the overall structure that are available, historical information regarding the structure is based on a review of the relatively limited information that is available to us along with TGRWA's visual walk-thru investigation of the building on November 8, 2016.

The building has experienced various modifications throughout its life. Most notably of these were major renovations completed in the 1920s, 1970's, 1988, and 2002. The drawings produced by Skidmore Owings & Merrill (SOM) for the 1988 restorations and Eifler & Associates (EA) for the 2002 restorations were reviewed. The primary work that pertained to the building structure included:

1. In the 1920s, an addition (now demolished) was built on the south end of the house. The master bathroom was renovated, and a door and window were added in the east wall (still in place).
2. The balcony structure was largely replaced in the 1970's.
3. The balcony received new waterproofing in 1988.
4. The roof and 3rd floor ceiling framing, especially at the flat roof portion and skylight opening were repaired in 1988.
5. Various exterior masonry repairs, tuckpointing, and other restoration were conducted in 1988 and in 2002.
6. The concrete slab-on-grade in the basement was replaced in 1988.
7. The sidewalk vault lid was replaced in 2002.
8. The exterior side of the basement walls was exposed and waterproofed and a perimeter drain tile was installed in 2002.

Condition

Nearly all of the building structure is hidden behind architectural floor, wall, ceiling, and roof finish materials and therefore could not be readily observed at the time of our visual walk-thru investigation. There are only a few locations which are accessible for limited observations of the structure including mechanical and storage rooms in the basement, the sidewalk vault, and a ceiling access panel in a 3rd floor storage room. Throughout the building, we viewed the architectural finish materials for signs of possible distress, deterioration, or compromise to the underlying structural elements.

The overall condition of the building structure at this time appears to be good. The following are summary comments:

1. In the basement, the 1st floor framing at the living room consisted of 2x10 (1 5/8"x9 5/8") wood joists @ about 12 in. o.c. spanning in the east/west direction with wood floor decking. The wood appeared to be in good condition. It was not observed, but we suspect that based on the relatively small joist size compared to the width of the room there could be a north/south spanning intermediate support beam located near the center of the floor such that there would be two spans of joists.
2. In the basement, we observed portions of brick masonry walls located within the interior space in the vicinity of the main corridor. It appears that these could be bearing walls. The walls appeared to be in good condition.
3. The 2nd floor framing above the living room appears to consist of wood joists spanning in the east/west direction based on a photo taken in 2014 during ceiling plaster repairs. The wood appeared to be in good condition. According to SAH, some of the framing was reinforced with steel plates in 1988. Similar to #1 above, we suspect there could be a north/south spanning intermediate support beam.
4. The roof and ceiling framing above the 3rd floor storage room consists of wood rafters and wood joists with wood roof decking. The wood appeared to be in good condition.
5. At the exterior of the building, the (3) to (4) wythe brick masonry walls (with limestone base on some walls) generally appear to be in good condition. No evidence of distress in the wall that could be indicative of foundation settlement was observed.
6. At the interior of the building, the floors have generally not experienced noticeable vertical movements nor are there significant signs of distress in the interior walls that could be indicative of foundation settlement or distress to structural elements. One exception would be at the main staircase and atrium structure which is described in a section below.

5-190

1st floor framing
and brick
bearing walls
in basement
storage room,
2016, Harboe
Architects



5-191

Exposed 2nd
floor framing
above the living
room, 2014,
SAH.



Main Staircase and Atrium Structure

Description

The main staircase is located within the central atrium which is open from the 1st floor up to the third floor skylight. The staircase consists of a single run stair from the 1st floor to the 2nd floor and a single run stair from the 2nd floor to the 3rd floor. The atrium floor structure consists of a large floor opening at the 2nd and 3rd floor. All of the stair structure and atrium floor structure is hidden behind architectural floor, wall, and ceiling finish materials and therefore could not be observed at the time of our visual walk-thru investigation.

We suspect that the stair structure from the 1st floor to the 2nd floor utilizes two edge stair stringers spanning from floor to floor. However, along the west and east sides of the stair there are walls which could be serving as bearing walls if the stair stringers are attached and supported by them. We suspect that the stair structure from the 2nd floor to the 3rd floor also utilizes two edge stair stringers spanning from floor to floor. Along the east side of the stair there is a wall which could be serving as a bearing wall if the stair stringer is attached and supported by it. We suspect that the atrium floor structures consist of wood framing with possibly joists, headers, and header beams.

Condition

The stair between the 2nd floor and 3rd floor, the atrium floor at the 2nd floor, and the atrium floor at the 3rd floor have experienced noticeable downward vertical movements. These movements could be indicative of foundation settlement, distress or deterioration to structural elements, excess deflections in structural elements, or a combination of these sources.

The drawings for the 1988 restorations included notes indicating the stair was to be jacked to a level position, steel reinforcing was to be installed, and then the underside was to be re-plastered. According to architect John Eifler, this work was completed on the stairs running between the second and third floors.

5-192

Stairs from 2nd floor to 3rd floor, 2016, TGRWA.



5-193

Stairs at 2nd floor, 2016, Harboe Architects.



Balcony Structure

Description

There is an inset and cantilevered balcony located at the west side of the 2nd floor. All of the balcony floor structure along with its roof structure is hidden behind architectural floor, wall, ceiling, and roof finish materials and therefore could not be observed at the time of our visual walk-thru investigation. Based on the limited historical information that is available, the balcony structure is understood to be wood framed.

Condition

We viewed the architectural finish materials for signs of possible distress, deterioration, or compromise to the underlying structural elements. However, none was observed.



5-194

Balcony, 2016,
Harboe Archi-
tects.

BUILDING SYSTEMS ASSESSMENT

Building Observations

From the perspective of the mechanical, electrical and plumbing (MEP) system requirements and needs, the existing building envelope seems in fairly good condition although there are some basic deficiencies that would improve the ability of the mechanical system to operate with better performance and efficiency. The building is of solid masonry construction consisting of three floors above grade and a full finished basement. Additionally there is a crawlspace basement area that extends under the adjacent front sidewalk on the West side of the building that has recently been reworked to remediate structural issues and capture sub-soil water infiltration. The basement level opens out onto a sunken garden level on the south end of the house off of the kitchen.

The windows in the building have been previously reworked to include double-pane thermal panes in the original wooden sash, although these double-panes are not Low-E coated or argon filled to our knowledge. Weather-stripping has been added to many of the windows units to help reduce infiltration however staff reports that this weather stripping has been largely ineffective at keeping out cold drafts. While no mention was made about summer infiltration at these windows we would expect similar poor performance in the summer as well. In general we did not observe fogging of the glass windows during our visits however staff reports that two windows in the Library and a cracked pane on the second floor south office often have fogging issues. This fogging of a double-pane window would be indicative of a failed window, which given the age of these replacement panes (30 years) is not surprising.

The roof is a combination flat and sloped structure that sits above an interstitial attic space. The flat portion appears to be copper sheets with brazed seams while the sloped portion is a standing metal seam roof. The hatch to access the roof sits above the back staircase which requires a ladder to reach the hatch. This hatch cover is extremely heavy and does not operate easily nor does it stay open without additional support making it a safety issue and nearly impossible to access and maintain the roof mounted equipment. The attic is insulated in a variety of ways as noted on the 1987 SOM renovation drawings and also observed through the mechanical equipment access lay light above one of the northeast third floor storage rooms. This includes loose fill between the ceiling joists, fiberglass batt insulation between the ceiling joists and fiberglass batt insulation between the roof and ceiling in the sloped portions of the roof. There is no indication on the drawings of additional insulation above the roof deck.



5-195
Left: Flat and pitched roofs, 2016, Architectural Consulting Engineers.

5-196
Right: Skylight on curb, 2016, Architectural Consulting Engineers.



5-197
Left: Fiberglass insulation under sloped roof, 2016, Architectural Consulting Engineers.

5-198
Right: Blown in insulation in ceiling joists, 2016, Architectural Consulting Engineers.



5-199
Left: Fungus on roof joist in attic, 2016, Architectural Consulting Engineers.

5-200
Right: Corroded plumbing vent pipe in attic, 2016, Architectural Consulting Engineers.

There is a large skylight situated over the main stairs. This skylight is copper clad, sitting on a copper clad continuous curb and the sectioned glass appears to be semi-translucent glazing. A semi-translucent glass lay light sits in the finished ceiling below the skylight. Per the 1987 renovation drawings the skylight is separated from the general attic volume with a bulkhead that extends from the skylight to the ceiling lay light. There are supposed grilles to vent this space into the attic although we did not physically observe these grilles. We do not see any venting strategy for the attic to the exterior although we are not able to confirm it is not present.

There does appear to be some white mold or fungus growth on one of the roof joists (Figure 5-196) which could be indicative of past moisture infiltration and a poorly ventilated attic space in this area of the roof. There is also excessive corrosion on the copper vent piping (Figure 5-197) that could either be moisture condensation caused by a humid attic and cold vent pipe or it could also be poor flux removal from when the pipe joint was soldered.

There are two heat pump/air conditioning air handling units located in the interstitial attic space between the third floor ceiling and the roof with ductwork extending throughout this attic space and down to the floors below through duct chases. These units will be discussed in more detail later in this report. Our main comment here is that it is typically not ideal to have mechanical equipment located in an interstitial attic space subject to large temperature variations from exposure to the assumed uninsulated flat roof deck. In this case there is a modifying effect in temperature in this space due to the porous nature of the ceiling at the lay light construction and from leaky ductwork which helps to keep the attic temperature moderated. This is a highly inefficient construction and operational methodology that results in elevated winter attic temperatures which in turn can create excessive snow melt runoff and seasonal energy loss through the roof structure.

The basement level is partially below grade except where it extends out under the front walk where it is fully recessed. Sump pumps have been installed to collect ground water at the basement level and under-sidewalk crawlspace to assist in keeping the space dry.

The building was originally designed as a residence but now functions as an office and house museum. The full height basement houses the historic kitchen, wine room, crawlspace storage, mechanical room, and an area that currently functions as an archival storage area. There is access off the kitchen into the sunken courtyard area. The basement is accessed via the back staircase. The first floor consists of the main entry, main hallway and alcoves (2), main staircase, back staircase, butler's pantry, living room (library) and dining room. The second floor houses offices (originally bedrooms), two bathrooms, staircases, main hallway, storage/closet areas and access to a covered balcony area on the West side of the main hallway. The third floor houses offices (originally bedrooms), storage/closet areas, staircases and the main hallway. The main staircase extends from the first floor up to the third floor creating an open central core arrangement that would have been suitable to facilitate natural ventilation in the original floor plan.

Mechanical/Electrical/Plumbing/Life Safety Systems Observations

The building systems were generally upgraded at the time of the last major renovation in 1988. Modern systems were integrated into the building using new and existing utility chases and interstitial spaces within the existing construction such as wall stud space and ceiling joist cavities. In general the base system infra-structure is sound, but there some performance issues that need to be addressed and some systems are starting to reach the end of their expected useful life which provides the timely opportunity for system and equipment improvements to enhance the performance and operating efficiency of the existing systems.

The building electrical system was modernized during the last major renovation in 1988. The building is served by a 200 Amp, 120/208 Volt, 3-Phase electric service. The main panel is a 42 circuit load center with a 200 amp main breaker. All but two circuit breaker slots are occupied which means that should additional circuits be needed or wanted beyond those available, a supplemental panel would be required.

Lighting in the building is varied, although for the most part most fixtures have some type of globe or glass component that hides the lamp thereby making the lamp of unknown type for the purposes of this survey. There is some task lighting at desks and many fixtures are historically accurate or replica fixtures although staff has indicated their belief that all light fixtures in the house are replacements. Light switching is handled with standard switches for each space served.

A supervised fire alarm (detectors only) and intrusion detection system has been installed in the building. From the stand point of code required life safety requirements, typically a business occupancy does not need a sprinkler system or fire alarm system although either can be added to enhance the life safety of the building. The building is required to have fire extinguishers in compliance with the City of Chicago code and NFPA 10. The building currently has three small (2.5 lb.) dry chemical extinguishers around the building, but unfortunately these extinguishers are too small and there are not enough of them to meet the compliance requirement. Additionally, a system of regular maintenance on the detectors is required and should be implemented along with the deployment of the correct number and size extinguishers.

The building does not have any exit signs or an emergency lighting system. Since this building operates as a business occupancy and the building is greater than two stories, both of these systems are required. Due to the sensitive nature and historic character of the building, this process should be undertaken carefully to ensure minimal aesthetic impact while still providing the required level of signage

5-201

Left: Electric meter in basement, 2016, Architectural Consulting Engineers.



5-202

Right: Main electrical panel in basement, 2016, Architectural Consulting Engineers.



5-203

Left: Ceiling fixture in first floor hall, 2016, Architectural Consulting Engineers.



5-204

Right: Sconce fixture in dining room, 2016, Architectural Consulting Engineers.





5-205

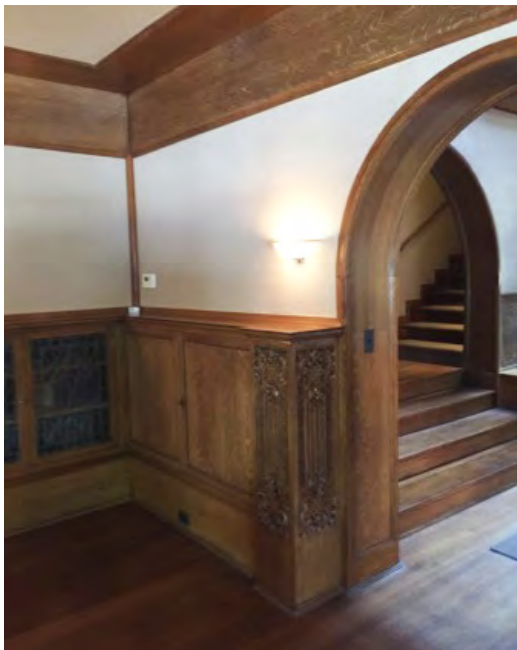
Left: Fire alarm and security panel keypad, 2016, Architectural Consulting Engineers.

5-206

Right: Smoke detector at ceiling, 2016, Architectural Consulting Engineers.

and illumination. Lighting system wiring can be altered to allow for central UPS systems thus allowing the existing light fixtures to act as emergency fixtures. Early communication with the building department is recommended so that a case can be made for minimal intervention.

The building is served by two separate mechanical systems: a hot water heating system and a forced air system. Both the boiler and air handling systems serve two zones. We were not able to confirm the exact zoning strategy from the existing drawings or site investigation but based on thermostat location and staff comments we believe they are structured in a north and south format which is also consistent with staff reports of overheating on the north side of the building and under heating on the south side during the heating season. We discuss the interior environmental conditions in more depth later in this report.



5-207

Left: Thermostat on wall in Library, 2016, Architectural Consulting Engineers.

5-208

Right: Thermostat on wall in dining room, 2016, Architectural Consulting Engineers.

A single hot water heating boiler sits in the basement mechanical room. The boiler is a natural draft model, A. O. Smith, Model HW420-780J with an input of 420 MBtuh and an output capacity of 336 MBtuh providing a nominal efficiency of 80%. The boiler is an older model, dating from 1987, that has seen significant service. At a service life of 30 years, the boiler is approaching the end of its expected useful life and while with regular maintenance it could continue operating for a few more years it should be considered for replacement in the near future in order to avoid an emergency repair or replacement, especially since the one-boiler format offers no redundancy or back-up capability. An added bonus of replacing the existing boiler would be the ability to install a more fuel efficient model and possibly change the system into a multiple boiler configuration which would enhance system reliability – all of which should save on operating costs.

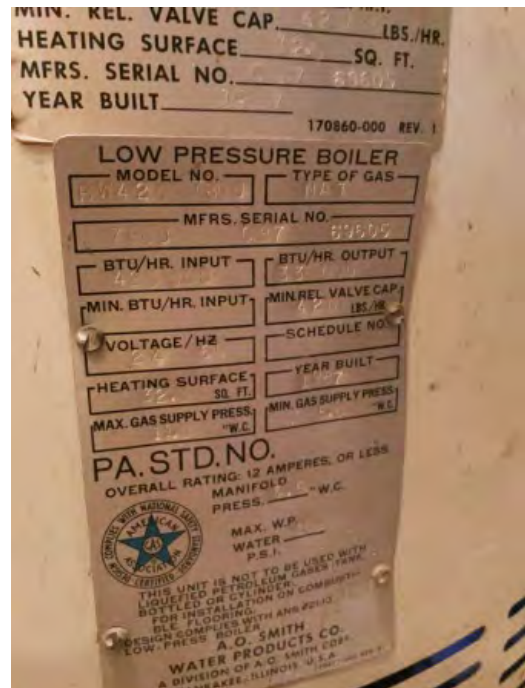
A gas-fired water heater, Rheem Model 22V40F1, installed in 2008, also sits in the mechanical room to serve the domestic water loads. This heater is a medium volume tank and burner (40 Gallon, 38 MBtuh) that is about the right size for the needs of the building at this time. This water heater flue is connected to the same chimney as the boiler.

5-209

Left: Boiler,
2016, Architectural
Consulting
Engineers.

5-210

Right: Boiler
label, 2016,
Architectural
Consulting Engi-
neers.



Combustion air for the boiler and water heater is delivered to the mechanical room via a 21.5" x 25.5" wall grille into the hallway. This hallway interacts with the volume of the building through open stairways and corridors therefore providing sufficient interior air for the boiler combustion air. The format of using interior air for combustion however does reduce the operational efficiency of the boiler and also creates an unprotected opening between the boiler room and the basement egress hallway. The boiler discharges to a brick chimney that then extends to the roof.

Heating hot water is circulated through the house to serve cast iron radiation elements either exposed or housed in enclosures, and in some cases copper pipe radiators. The first floor is primarily served by basement hung cast iron radiator units that sit at the basement ceiling and are connected through built casing structures to cast iron floor grates above. There are under-bench copper radiation pipes mounted near the balcony access off the main hall on the second floor. Utilitarian areas have exposed radiators, while bedrooms and higher finish areas have radiators in enclosures.

This system has been largely re-piped in the 1988 renovation. Unfortunately, the system has trouble maintaining the house at an even temperature in cold weather. We feel this is due to a poorly implemented piping system, lack of automated local zone controls, air binding of the radiators, and infiltration of cold air through the forced air system and other areas of higher than desired infiltration. Further evidence of the poor performance is evident from a supplemental pump being added on the south side of the building to help move hot water up to one of the most remote radiators.

The building is cooled by a ducted air conditioning system that was installed in the 1988 renovation. Two heat pump air handling units are installed in the interstitial attic space above the third floor ceiling. These units are accessed through a lay light ceiling in a storage room north of the main stair case.

Each air handler is a York, Model G+HC048AA, 4-ton heat pump/air conditioner. These are older models that utilize R-22 refrigerant. We would note that the original drawings called for two five-ton air conditioners in lieu of the two four-ton units installed. Refrigerant line sets extend from each air handler through the roof to the remote heat pump/air conditioning units above. Condensate from each evaporator coil is directed to a condensate drain. The ductwork extends throughout the building through duct soffits, joist cavities, stud spaces and chases.

5-211

Left: Combustion air opening, 2016, Architectural Consulting Engineers.

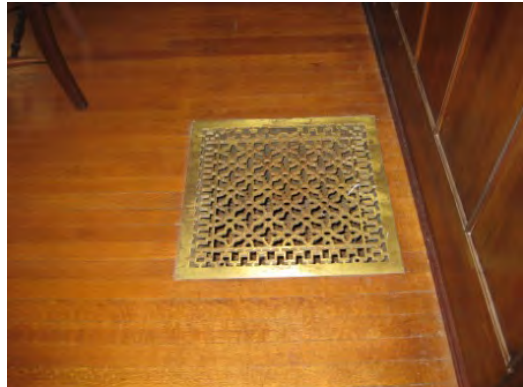


5-212

Right: Water heater, 2016, Architectural Consulting Engineers.

5-213

Left: Ceiling hung radiator in cabinet, 2016, Architectural Consulting Engineers.



5-214

Right: Dining room floor grill, 2016, Architectural Consulting Engineers.

5-215

Left: Exposed cast iron radiator in kitchen, 2016, Architectural Consulting Engineers.



5-216

Right: Cast iron radiator in cabinet, 2016, Architectural Consulting Engineers.

5-217

Left: Attic mounted heat pump, 2016, Architectural Consulting Engineers.



5-218

Right: Roof mounted condensing units, 2016, Architectural Consulting Engineers.

While we are not 100% certain due to hidden conditions and a discrepancy in the renovation drawings that only showed a single air conditioning unit instead of two, it appears that the system is setup with north-south zoning.

There are two exterior condensing units (heat pump units) sitting on the roof directly above the interior units. Due to the condition of the roof hatch we were not able to gain access to these units. However, staff has reported that these two units have been replaced so are not as old as the interior units. Our visual observation from the roof hatch opening confirms that these units do appear to be newer vintage and they also seemed in very good shape.

As noted in the envelope discussion, the air handling units and duct systems are located in an area that is above the ceiling insulation so they are potentially subject to extreme temperatures in winter and summer seasons. However, the results of our temperature and humidity monitoring campaign show that this interstitial space is actually holding just about the same temperature as the third floor space which indicates that there is substantial duct leakage and exfiltration air movement between the occupied areas and this unconditioned attic space. The results from the blower door testing supports this conclusion as it showed substantial infiltration from the lay light system into the house and the IR survey showed leaking ducts in the interstitial joist and stud spaces. While this moderated attic temperature helps to prevent premature degradation of the installed equipment, it does impact the operating cost and performance of the installed systems as well as potentially cause excessive snow melting on the roof which could contribute to ice dams.

While we typically recommend insulating the roof deck to allow the attic space to become part of the thermally conditioned space, we would also recommend that the duct leakage and points of infiltration be corrected in conjunction with this work in order to enhance equipment performance and effectiveness.

Additional benefits to improving the thermal performance of the attic include:

1. Reduced heating and cooling load to the equipment through thermal losses into the ductwork and equipment will improve the system performance throughout the rest of the building.
2. Even well sealed ductwork (which this isn't) often leaks conditioned air into the surrounding space. If this space is internal to the thermal envelope there will less chance of condensation of hot humid air on ductwork or surrounding materials that might be cooled by the leaking supply air.

3. In the winter, when the system is not operating, the ductwork in a cold attic will act as a cold generator and will allow cold air to follow the ducts due to gravity (cold air is heavier than hot air) where it will fall out the open ceiling registers. Having the attic temperature more in line with the surrounding room temperatures and adding some damper controls to the system will eliminate this issue.

The plumbing systems in the building appear to have been largely replaced when the building was renovated in the 1980's although despite the drawings calling for the sanitary & vent risers to be replaced there is evidence some cast iron waste and vent stacks may remain in use. These heavy cast iron stacks are generally good for 100 years or more of service so there is not too much concern with their continued use.

In the 1988 renovation a sewage ejector was added in the root cellar to collect the sanitary waste from the basement toilet room creating an overhead sewer connection to prevent flooding through this connection. Additionally, although not shown on the 1987 drawings, a second sewage ejector was added to the boiler room to collect water from the floor drain in this space and also may collect waste from a laundry grey box connection (now abandoned) which is located in Storage Room 003A. In the 2001-02 renovation a new subsoil drain was added around the exterior perimeter of the building with collected water directed to a sump pit also located in the root cellar area. This sump pump is protected with a

5-219

Left: Old cast iron stack connected to new at base, 2016, Architectural Consulting Engineers.



5-220

Right: Cast iron stack from second floor toilet room above attic, 2016, Architectural Consulting Engineers.



battery back-up and the pump discharge is connected to the overhead sewer installed in the 1980's.

The 1980's renovation called for replacement of the storm water downspouts and separation of the interior storm and sanitary piping below grade until reaching the exterior wall on the north side and the courtyard on the south side. We suspect that basement water infiltration continued to be a major issue because in a project in 2001-02, additional changes were made to the storm water system creating a separate storm sewer in the alley flowing north to the combined street sewer in Schiller Street. An interior downspout in the NE corner of the building and an exterior downspout in the SE corner of the building were connected to this new storm sewer and their original below grade piping was capped and abandoned in place. An interior downspout on the south west side remains connected into the sanitary sewer which flows to the courtyard area and an interior downspout on the north west side remains connected into the sanitary below the north basement storage room floor and exits the building to the west.

Staff has reported that there was a 2014 incident of sanitary flooding in the north second floor toilet room during an intense storm event. This scenario is caused when the combined sewer is all or partially blocked causing slow drainage to the street sewer. The slow storm drainage causes the downspout from the NW corner of the roof to backup creating a standing column of water that then will flow out the lowest available opening – which in this particular sanitary stack is the second floor toilet. Provided the water draining through the partially blocked sewer is at least as much as is collected in the roof drain, this phenomenon won't occur, but if the sewer becomes more completely blocked or if the rain collected exceeds the flow through rate, then this could happen again. Staff had the associated sewer cleaned after this particular occurrence, so that should help the immediate concern for a repeat flood, and ongoing preventative rodding of this drain is one method for resolving the flood concern. Other methods of resolving this issue include:

- Reworking of the storm and sanitary sewer to eliminate the combined sewer in the building.
 - For the north bathroom this would be as simple as intercepting the NW storm drain at the basement ceiling and directing it to the NE corner of the building and connecting to the storm drain at that location which has already been split from the sanitary sewer.
 - A similar solution could work for the SW storm drain which has not flooded since 2012, when repairs were made to the sink in the historic basement kitchen. It actually might be easiest in this situation to route the SW storm drain at the basement ceiling and tie into the same NE storm drain.

5-221

Left: Boiler room ejector, 2016, Architectural Consulting Engineers.



5-222

Right: Root cellar sump pump, 2016, Architectural Consulting Engineers.

5-223

Left: Root cellar sewage ejector, 2016, Architectural Consulting Engineers.



5-224

Right: Abandoned grey box, 2016, Architectural Consulting Engineers.

5-225

Left: Redirected storm drain at northeast interior corner, 2016, Architectural Consulting Engineers.



5-226

Right: Exterior redirected downspout at southeast corner, 2016, Architectural Consulting Engineers.



- Provision of a storm relief opening outside the building which would now be the lowest opening in the combined system and which would just flow to grade instead of creating a flooding effect in the building.
 - This only works if the grade opening is lower than any connected sanitary openings.

All remaining galvanized steel domestic water piping was called to be replaced with new copper piping in the 1980's renovation and while much of it is concealed from view there is visible copper distribution piping in the basement which would tend to support this design implementation. In lieu of routing domestic water at the ceiling, this piping drops below the floor in the boiler room and is routed below the basement slab to existing water riser locations.

Staff has also reported to separate flooding occurrences in the north second floor bathroom from frozen domestic water piping. This situation seems to be a result of a vertical pipe chase (either a dedicated chase or wall studs cavities) that sits against the outside wall adjacent to this toilet room and extends from the second floor plumbing fixtures up to the attic. The combined effect of the piping in a chase against an exterior wall and the unconditioned attic appears to be the likely culprit. If possible we recommend relocating any domestic water piping located on the exterior wall and the sealing of the chase to eliminate cold air from falling down this chase and collecting at the second floor plumbing fixtures should resolve this issue.



5-227

Left: Domestic water routed below grade, 2016, Architectural Consulting Engineers.

5-228

Right: Domestic water routed below grade, 2016, Architectural Consulting Engineers.

Inspection and Environmental Monitoring Results

As part of this study we implemented two independent studies: a blower door and infra-red (IR) survey to evaluate how the building envelope is managing infiltration issues; and a temperature and relative humidity study that looks at how the current HVAC systems and envelope maintain the interior environmental conditions. The full results from these two studies can be found in the appendix, but the following is a summary of our findings.

Blower Door Test and IR Survey

ACE retained the services of Priority Energy Solutions to perform an inspection of the building with the use of a blower door test and an Infra-Red (IR) photography survey. This test placed a negative pressure on the building which then allows for a calculation of how tight the building is in regards to infiltration control and also, with the use of an IR camera, areas of excessive infiltration and other temperature dependent phenomenon can be identified for future remediation.

The results of this testing established that the building has a leakage rate of 5.9 ACH50 (Air Changes per Hour at 50 pascals), which is approximately twice as much infiltration as recommended by the 2015 IECC and ASTM E 779 which requires 3.0 ACH50. However, the State of Illinois has adopted a less stringent requirement of 5.0 ACH50, which places this building close to the code limit making it a reasonably performing older structure.

The main points of outside air leakage into the building seem to occur at the lay light and skylight into the attic space. Additionally the IR survey revealed substantial duct leakage into the attic and interstitial spaces that negatively impact the system performance and operation. This later fact is not a huge surprise since duct sealing was not required or standard practice at the time this building was renovated.

The study further recommends that ducts be sealed with an internally applied sealant (Aeroseal) that is distributed through the ducts system as an aerosol and fills duct openings that are less than 5/8" in size. Additionally the study recommends envelope improvements to better isolate the skylight and lay light areas to reduce the infiltration.

We are in general agreement with the recommendations of Priority Energy Solutions as they relate to improving the building envelope and systems to decrease infiltration of outside air. We would further add a recommendation for insulation at the roof deck level that if properly implemented will not only improve the thermal

performance of this building element but it will also help to mitigate air infiltration and provide an improved interior environment for the mechanical equipment and ductwork located in this interstitial attic space.

Environmental Monitoring - Temperature and Relative Humidity Study

ACE undertook an environmental monitoring campaign to document how the building interior temperature and relative humidity (RH) varies over time. We deployed eight Onset Computer Bluetooth enable HOBO data loggers (MX1101) around the interior of the building as well as two exterior HOBO weatherproof data loggers (Pro v2) to document conditions.

To date we have summer, fall and winter data available for review and analysis. The data loggers remain in place at the writing of this report and will remain until the report is complete at which time the additional data will be amended to the final version of this report. Our summary observations are as follows:

Summer Data:

Our summer data is collected from June 27, 2016 until August 17, 2016 spanning the months of highest average temperature in the Chicago area.

- Outside temperatures ranged from a high of about 87°F to a low of 66°F. Outside RH varied from about 36% to about 95%.
- Attic temperatures varied on a daily basis generally with a high of about 78°F and a low 66°F. This is far below what we would expect from an attic space with insulation at the ceiling thereby supporting the idea of high duct leakage and interaction between the attic and the occupied spaces. The RH had a similar daily fluctuation with about a 20% range indicating that as the temperature varied, the temperature dependent RH varied as well.
- The balance of the building actually performed very well with seemingly tight control and minimal variation falling well within our acceptable range. There was a trend of the higher average temperature and more variation of temperature on the third floor with decreasing variation and lower average temperature as we went lower in the building. We feel there are several reasons for this trend:
 - Increased distance from the attic and high infiltration points
 - Increased distance from the thermal roof load
 - Reduced stratification effect as we moved lower in the open floor plan
 - Thermostat control on the first floor which showed a very tight control range
 - Basement storage showed very little change in large part due to isolated space and the buffering effect of the below grade structure.

In addition to the attic infiltration and duct leakage issues previously discussed, we feel the biggest issue we see with this data is the challenge presented by stratification. The open main stair hall and offices with open doors makes maintaining temperatures acceptable in all floor levels very difficult to achieve.

Fall Data:

Our fall data is collected from October 13, 2016 until November 15, 2016 spanning the months where cooling is stopped and heating season begins with some data for days when we expect neither system to be operational.

- Outside temperatures ranged from a high of about 77°F to a low of 47°F. Outside RH varied from about 35% to about 92%.
- Attic temperatures varied on a daily basis although the frequency and range was less pronounced and more subtle than during the summer months. We take this as an indication of less HVAC system use due to moderated outside temperatures resulting in less impact on temperature and humidity due to duct leakage. RH followed a similar more subtle variation which is consistent with the temperature variations noted above.
- The balance of the building showed very similar data trends across all spaces and floors with slightly higher average temperatures on the upper floor. There were however large variations in space temperature which did not follow any particular pattern based on height within the structure and is more likely due to the space orientation or amount and functionality of the radiator heat in the spaces monitored. The basement storage once again had the least variation due to the moderating effect of the below grade walls and basement floor.
- While there was general trending of indoor RH with outside conditions as we would expect, the variation was substantially less pronounced than what was occurring outdoors indicating that the masonry structure and generally tight construction provides a reasonably tight level of RH control, generally falling within the acceptable guidelines for range variation and frequency.

Winter Data:

Our winter data is collected from January 27, 2017 until April 17, 2017 spanning the months where heating season dominates until early spring begins with some data for days when we expect neither system to be operational.

- Outside temperatures ranged from a high of about 77°F to a low of 22°F. Outside RH at the Balcony varied from about 22% to about 95%.
- Attic temperatures varied on a daily basis in a very similar pattern each day although the range fluctuation varied on a daily basis as well which may be

in part an influence of the unseasonably warm winter temperatures on many days. Since the forced air systems were not in operation during this period the fluctuations seen are a function of inside and outside temperature variations. RH followed a similar more subtle variation with daily fluctuations superimposed on a broader fluctuation which closely followed the variation pattern in the spaces below. This is an expected result since there is no specific humidification intervention at work in this building so variations follow the interior conditions.

- The balance of the building showed very similar data trends across all spaces and floors with three exceptions:
 - The basement showed the same buffered temperature and RH fluctuations as in the other seasons due to the below grade moderating effect.
 - The third floor north had a similar pattern but a higher temperature trend (about 5°F higher) than the third floor south, second floor spaces north and south and the first floor south – all of which had almost identical high and low temperature variations in nearly identical patterns.
 - The first floor north had the highest peak temperatures of all zones, almost 4°F higher than even the third floor north. The variation range was also bigger than the other zones indicating that some other unique factor is at work in this space versus the other spaces. What is also interesting in this zone is that the temperature sensor is sitting right next to the thermostat – which is not at an ideal location being in a corner above some bookcases so the air might tend to stagnate. However, we would expect the thermostat to trend with less variation in this type of location not more.
- While there was general trending of indoor RH with outside conditions as we would expect, the variation was substantially less pronounced than what was occurring outdoors indicating that the masonry structure and generally tight construction provides a reasonably tight level of RH control. The low end of the range however got down near 15% so we would recommend some addition of winter season humidity to help keep the lowest levels at a more reasonable level.

Thermal Load Study

Our thermal modeling has generated a calculated cooling load based on existing conditions of 7.6-tons and a heating load of 253 MBH. The existing cooling system capacity is 8-tons and the boiler output capacity is 336 MBH which both compare nicely with these estimated values.

The recommended system and building changes are generally due to the age of the equipment or location of the thermal boundary as opposed to the chance for highly improved energy consumption which would help pay for the cost of the remediation. For instance, while we recommend changing the location of the insulation boundary at the attic level from the third floor ceiling to the underside of the roof, this change will not dramatically improve the amount of insulation installed, but will instead provide a better interior environment for the systems installed in the attic and result in improved system operation. Similarly, the house is already performing fairly well with respect to infiltration. Improving this window seals and other places of infiltration will definitely enhance comfort and reduce operational costs, but they are the types of improvements that should be undertaken regardless of remediation cost or enhanced energy performance since the cost for this type of work is fairly low and the improvements are sometimes challenging to quantify.

The one place where the system improvements could be justified with increased energy savings is consideration of a geothermal system to replace the current air conditioning system and perhaps even the boiler heating system. The most cost effective and therefore economically viable system choice would be two water-to-air geothermal heat pumps located in the third floor storage space and a loop field in the driveway to the east of the house. This system could in theory provide all of the heating and cooling needs of the building and the existing boiler and any changes to the radiant heating system could be avoided. By avoiding these extra costs that would otherwise be required to provide a functional system, the geothermal system becomes economically feasible with a 10 year to 13 year payback potential.

Alternatively, if it is desired to maintain the radiator operation, then an alternative geothermal system could be considered that would include a water-to-water heat pump, circulation piping to new air handlers on the third floor, and other where recommended renovations to the radiant piping and controls for the hot water heating system. This solution would largely negate the savings of not implementing the renovation of the radiator heating system discussed in the water-to-air heat pump solution discussed above so the resulting payback would be considerably longer – something in the 15 to 18 year range.

Furthermore, the reality of installing a loop field in the driveway, while viable, would present some unique challenges due to the new storm water piping installed there in this same location and the need to protect the building foundation and footings in the sand heavy soil near the lakefront.

For all of the above reasons, in this situation we feel the best recommendation would be for a conventional air-to-air heat pump solution for the air conditioning and supplemental heating system, along with renovation of the boiler plant and controls as discussed elsewhere.



6

PROGRAMMING

PROGRAMMING

On March 1, 2017, Harboe Architects conducted a programming interview at the Charnley-Persky House with the Society of Architectural Historians (SAH) staff. Questions posed during the interviews included general questions as well as more specific questions relating to daily activities, tours, and programs held at the house. Discussions and responses of the SAH staff can generally be categorized under larger topics and are organized by topic in the following sections of this programming analysis. These topics include current and future uses of the house, space needs and infrastructure improvements, interpretation and visitor experience, accessibility, and site security.

Current Use

The primary use of the Charnley-Persky House is to serve as the international headquarters for SAH. SAH employs a staff of seven that works in the house, managing the day-to-day operations of the non-profit organization as well as the ongoing stewardship of the house. The available workspace is generally adequate for current staff use and needs. Staff currently occupies offices on the second and third floors. On the first floor, the dining room is used by staff for meetings and the library for lectures. The basement is primarily used by SAH for storage except for the new kitchen, which is utilized by SAH staff on a daily basis, and the historic kitchen which is a gathering space for tour attendees.

Secondary uses for the Charnley-Persky House include tours, meetings, lectures, and special events and programs for both SAH and outside organizations. The following includes descriptions of each of these uses:

- ***Tours***

Tours are offered regularly two to three times per week and are led by volunteer docents. There is a free tour each Wednesday at noon and one or two paid tours on Saturdays (generally only one tour in the winter and two in the summer months). The regular tours are limited to between 15 and 20 people. During the spring and fall there is approximately one private group tour per week. Group tours are limited to 45 people, divided into three groups of 15 participants. In addition to regularly scheduled tours, there are occasionally people that stop by the house and are offered private tours. All tours exclude the third floor.

- ***Meetings***

SAH uses the house for meetings relating to the organization's operations and mission. Occasionally, the house is also rented out to external organizations and corporations for meetings. Most meetings take place in the dining room.



6-1

People in line to tour the house during Open House Chicago, 2013, Photo courtesy of SAH.



6-2

Left: People tour the house during Open House Chicago, 2013, Photo courtesy of SAH.



6-3

Right: People tour the house during Open House Chicago, 2013, Photo courtesy of SAH.

- **Lectures**

Lectures sponsored by SAH as well as other organizations are hosted at the Charnley-Persky House. All lectures take place in the Library with a podium set up in the northeast corner next to a projection screen and folding chairs set up around the room for attendees. In addition to SAH lectures that focus on architectural history and preservation, each fall, the Charnley-Persky House hosts a series of three to four lectures for MAS Context, which is a quarterly journal that addresses issues relating to urban context.

- **Special Events & Programs**

The Charnley-Persky House hosts approximately one or two special events every year. These include both SAH sponsored events, such as dinner parties for Annual Gala Honorees, as well as rental events (excluding weddings). Rental events are limited to fifty people. Dinner parties are limited to eight people (the number of guests that can fit around the dining room table).

6-4
The Conservation Management Plan project team meets in the Charnley-Persky House dining room, 2016, Photo courtesy of SAH.



Possible Future Use

While the second and third floors of the Charnley-Persky House are consistently used Monday through Friday by SAH staff, rooms on the first floor and basement are currently underutilized. In an effort to better utilize the entire house, SAH is interested in finding a compatible use that will complement their mission. SAH is interested in uses that facilitate learning within a dynamic environment. Although tours are offered, there is no interest making the house a full-time house museum. Possible uses that have been suggested include:

- ***Center for World Architecture***

Capitalizing on SAH's global reach through membership, conferences, the journal, and online media and resources, the Charnley-Persky House could be used by students and scholars as a place to study architecture and design from around the world.

- ***Heritage Conservation Lab***

SAH could partner with a local university program in historic preservation to form a Heritage Conservation Lab at the house. Students in the program could use the house as a laboratory for learning about preservation practices and material conservation, examining material samples taken from the house and testing restoration techniques.

- ***Humanities Study Center***

SAH could partner with a local university program in the humanities to form a Center for the Study of Humanities at the house. Students could utilize the house as a research center for studying a wide range of subjects relating to human culture and heritage.

All of these options would require outside funding to cover start up and operating costs. Funding could be achieved through either private or foundation endowments from local, national, or international organizations and programs. SAH could also raise funds through creating endowed rooms in the house named for benefactors. SAH may also want to consider the possibility of neighborhood outreach to raise awareness and funding for potential future uses and programs at the house.

Space Needs & Infrastructure Improvements

There are currently a number of spatial needs and impediments that need to be improved in order to allow the house to function more effectively for its users. These desired space needs and infrastructure improvements are as follows:

- ***Storage***

There is currently limited storage on the first floor of the house which requires large items used for lectures such as the projection screen and folding chairs to be stored in the basement. This is an issue because every time there is an event the screen and chairs have to be brought up the narrow staircase from the basement then returned after. SAH would like to explore storage options on the first floor. It is possible that one or both of the alcoves could be repurposed for storage. This concept needs further study.

- ***Archives***

There are numerous archival materials relating to the house that are currently stored in boxes in storage rooms throughout the house. SAH desires to have one central location to house archival materials, including potentially displaying some items. The office of Pauline Saliga, Executive Director of SAH, was suggested as a possible location for archives; however, if this option were to be pursued, a new office space for the Executive Director would need to be established in the house. It might also be possible to re-purpose the Tour Center (Historic Kitchen) or basement Storage Room for the archives. Care would need to be taken to protect valued materials from possible damage due to moisture issues.

- ***Furniture***

The wood table and chairs in the Library is functional for meetings; however, it has to be moved out of the room when the Library is used for lectures and events. The current table and chairs is not part of the house's original collection and therefore could be replaced with something more comfortable and functional. It is recommended that SAH explore options for more versatile or modular furniture that would provide a balance of comfort for everyday use but also be able to be utilized for special events and lectures. Additional chairs for lectures should be light weight, stackable, and easy to store. Also, adding a large rug under the table would protect the historic floorboards.

- ***Wireless Internet***

Internet service in the house is slow likely due to insufficient bandwidth and outdated equipment and service. It is recommended that SAH contact its internet provider or IT systems manager to discuss solutions that will improve internet service throughout the house.

- **Lighting**

The exterior lighting consists of five motion-activated wall light fixtures in the parking and garbage can storage areas behind the house, four wall light fixtures in the service courtyard at the south end of the house, and two ceiling light fixtures in the balcony. The lighting is inadequate because the house is completely dark at night, inside and out. It does not make the house a “good neighbor” that is welcoming to people who are walking or driving by it. Neighbors complain that the dark passageway at the south end of the house, combined with the dark courtyard and parking area, and a completely unilluminated façade make them feel ill at ease and even unsafe walking past the house at night. Additionally, many of the rooms in the Charnley-Persky House are dark and require additional general and task lighting for its occupants. Lighting solutions, for both the interior and exterior should be assessed by a qualified lighting designer. It is recommended that solutions be developed in collaboration with Harboe Architects in order to successfully increase interior and exterior light levels at night while respecting the historic integrity of the house.

- **Heating/Air Conditioning**

There is a need for a balanced heating and cooling system in the house. Currently, the temperature can be hot in one part of house and cold in other. Please refer to the Building Systems Condition Assessment section of this Conservation Management Plan for a more detailed analysis of the heating and air conditioning systems in the house.

- **Presentations**

In order to prepare for lectures at the house, a heavy projector screen stored in the basement is brought up to the Library and set up along with a portable projector. SAH staff would like to explore options that would allow for easier set up for lectures. Options could include the following:

- Install an LCD screen – While this solution would eliminate the need to set up and take down the projection screen each time there is a lecture at the house, it would likely need to be wall mounted or permanently supported on a stand. This could detract from the historic character of the Library.
- Install a ceiling mounted or recessed drop-down projection screen – This is a more permanent and expensive solution for a projection screen and not necessary given the frequency of lectures offered. Also, since technology is constantly changing, a permanent and costly solution such as this is not recommended.

- Purchase a new portable projector screen – There are many options for portable, lightweight projection screens that can be easily stored, moved, set up, and disassembled. Paired with a portable projector – many of which are now the size of cellular phones – this is likely the most cost effective solution for SAH's needs.

- ***Tours***
 Tours are offered every Wednesday and Saturday throughout the year. Occasionally, there are additional pre-arranged group tours. While tours generate revenue, they can also be disruptive to SAH staff. The following solutions should be considered to reduce noise and disruption from tour groups:
 - Limit tours to the exterior, basement, and first floor of the house.
 - Limit the number of tour attendees that can be on the second floor at one given time.
 - Only offer larger tours on weekends when staff is not working.
 Another concern of SAH staff is that the Tour Center (historic kitchen) is underutilized. This room currently serves as the start and end location for tours and has some small items and books available for purchase. In order to enhance the Tour Center's use, archival and informational materials relating to the history and architecture of the house, Sullivan, Wright, and the Charnley family could be put on display in this space. This room could also be used to hold temporary exhibits on topics pertaining to historic art and architecture, including student work.

- ***Dinner Parties***
 Dinner parties are infrequently held in the Charnley-Persky House dining room. Guests are limited to eight – the number of people that can fit around the table. Catering dinner parties is difficult due to the kitchen being located in the basement. Clean up is also difficult given that there is no washer and dryer in the house to clean linens used. A washer and dryer could be added in the basement; however, adding kitchen functions on the first floor of the house would be difficult without significant alterations. It is recommended that SAH significantly limit or totally exclude dinner parties at the house.

Interpretation & Visitor Experience

Thousands of visitors from all over the world come to the Charnley-Persky House each year. Tourists visiting the house are guided on docent led tours that begin and end in the Tour Center in the basement, which is accessed through the courtyard on the south side of the house. Tours cover the exterior of the house, as well as the basement, first, and second floors on the interior. The third floor is not included on tours due to safety concerns regarding the railing height. Tours focus primarily on the architecture of the Charnley-Persky House, including background information on architects Louis Sullivan and Frank Lloyd Wright, the design and construction of the house, and prominent design elements and features. Docents also provide some information about the first owners of the house, James and Helen Charnley, and their family, subsequent tenants and owners, the 1920s addition and later removal and restoration, as well as other interesting facts in the life of the house.

In addition to regularly scheduled docent led tours, SAH offers “Charrette Tours,” which are specifically for architecture students. The students are given free access to walk through the house with a list of questions to investigate. At the end the students come together to share their thoughts and ideas on specific design details or issues in the house. SAH also opens the house to groups of architects for sketch tours, and in 2013 it was open to the public for Open House Chicago. Many other tourists walk past the house each day, taking photos and reading about the house’s history and architecture in various guidebooks and internet sources.



6-5

Left: Students pose for a photo on the stair during a Charrette Tour, 2016, Photo courtesy of SAH.

6-6

Right: A student participates in a Charrette Tour, 2016, Photo courtesy of SAH.

The Charnley-Persky House is first and foremost the international headquarters for SAH and a place of business. Although tours are offered, the house is not a historic house museum and it is not the intention of SAH to operate it as such in the foreseeable future. SAH also does not have the necessary staffing to provide the tour program that would be required for a historic house museum. While expanding tours may not be the appropriate solution, there are several ways that SAH can enhance interpretation and visitor experience at the Charnley-Persky House without increasing staff or the number and frequency of tours. The following options are recommended:

- ***Exhibitions***

There are important aspects of the house's history that could be presented through interpretive exhibitions. A sampling of ideas is below:

Seymour H. Persky Building Fragment Collection

SAH's benefactor who donated the funding for the Society to purchase Charnley-Persky House, Seymour Persky, was an avid collector of building fragments, drawings, furniture, decorative arts and archives documenting the work of Adler and Sullivan, Frank Lloyd Wright, Marion Mahony Griffin, Alfonso Iannelli and other Prairie School architects. Telling the story of Seymour Persky the collector through objects from his own collection reinstalled in Charnley-Persky House would be compelling. Some of the smaller building fragments and drawings in his collection could be installed in the public areas of the house to detail the history of Chicago architecture, its historic preservation movement, and important losses of historic structures. Charnley-Persky House already owns a few Adler and Sullivan building fragments which could supplement the display.

The Charnley Family

An exhibition of informational panels on the history of the Charnley family could be installed in the basement corridor for visitors to read while waiting for the guided tours to begin. The goal would be to place the Charnley family and their servants within the context of a larger economic, social, cultural and immigration framework that would be narratives about Chicago and Midwestern history in the late 19th century. The recent digitization of historic newspapers, government records and library archives has revealed much more about the Charnley family than we ever thought possible.

Artifacts from 2010 and 2015 Archaeological Digs

The basement tour center area also would be a good place to do an exhibition of

household artifacts that were unearthed when Dr. Rebecca Graff and students from DePaul University and Lake Forest College conducted archaeological digs behind Charnley-Persky House in 2010 and 2015, respectively. The common household items found in a 19th century midden behind the house include a wide variety of both local and international food products, china, earthenware, bottles containing patented products, and personal products such as medicines, tooth brushes, and perfume bottles. Over the years Dr. Graff has had her students clean, catalog, photograph and research the items with an eye toward developing a social, business, and economic history of people who lived in the Gold Coast area.

- ***Virtual Tours***

Utilizing the newly developed digital building model, 360 degree photography, and digital video of the house, SAH could offer virtual tours of the Charnley-Persky House through a web-based platform that could be accessed from the SAH website.

- ***Tour Options***

A variety in the types of tours offered could be developed without increasing the overall number of tours. For example, in addition to architecture and design, tours could focus on the social history of the house and its occupants, the house's place in the development of the city of Chicago, or technical conservation issues relating to the house. Additionally, pre-arranged group tours could cater to the specific interests of the people attending the tours. This is already done with the charrette tours for architecture students and the sketch tours, but could be expanded upon.

- ***Access to Information***

Technology is expanding and evolving at a rapid rate and information is readily available to people with a simple search on their smart phones. SAH should strive to make the correct information about the Charnley-Persky House available to those that want to learn more. A smart phone app could be developed and made available to visitors that walk by the house at times when tours are not being offered. The app could provide a brief history of the house and general information about the architecture and design. An alternative to an app, which needs to be downloaded to a phone or tablet, would be to provide a quick response (QR) code somewhere on the exterior of the house that visitors could scan with their mobile phones and be taken to a website with information about the house. For less tech savvy tourists, informational pamphlets could be made available outside the house.

- **Enhanced Tour Center**

For those that do enter the house for tours, the Tour Center could be enhanced to provide additional information about the house. Informational exhibits as well as archival artifacts, including items found during the archaeological digs could be displayed in the Tour Center for visitors to view before or after tours of the house (See *Exhibitions*).

Accessibility

Accessibility is a concern at the Charnley-Persky House. Currently, there is no accessible entry or path through the house. When group tours are booked it is communicated ahead of time to visitors of the level of mobility required for individuals to participate on a tour the house. Occasionally there are people that are only able to tour the first floor. Twenty-five to thirty-five percent of tours are specifically for seniors, and on these tours there is always someone that is not physically able to go upstairs to the second floor. Individuals that have no mobility outside of a wheelchair are unable to enter the house.

Previous studies have been completed to explore ideas for making the house more accessible, including a study to add an elevator on the east side of the house, which was done by architect John Eifler for Seymour Persky. Harboe Architects has not reviewed any previous studies; however, we have studied the current conditions at the house and have not identified a design solution for an elevator that would not negatively impact the historic integrity of the house. It may be possible to make only the first floor of the house accessible with a stair climber. This may prove to be difficult given that there are stairs outside the house to access the main door and then again inside the vestibule to get to the first floor level. Accessibility at the Charnley-Persky House requires further study to explore all possible solutions. In the meantime, SAH should continue to make tour groups aware of the level of mobility required for tour participants and attendees for special events.



7

RECOMMENDATIONS & POLICIES

RECOMMENDATIONS

The following recommendations outline what is required to preserve and maintain the Charnley-Perksy House. All recommendations strive to retain and preserve as much original building fabric as possible. The recommendations are divided into three categories: Priorities/Immediate Needs; Recommended Future Work; and Recommended Maintenance. In addition to recommendations for ongoing maintenance, a checklist for cyclical maintenance is included in this chapter. The checklist will also be presented to SAH as an Excel spreadsheet that can be edited and updated as repairs are completed.

Priorities/Immediate Needs

There are a number of issues at the Charnley-Perksy House that require immediate attention. These issues generally relate to water infiltration and deterioration of materials and will require stabilization, repair and replacement of existing building materials and elements. It is recommended that the following projects be carried out as soon as possible to ensure the continued operation of the house and safety of its occupants.

- ***Roof repairs***

Repairs should be made where water is leaking through the roof at the southeast corner of the skylight into the house. It is recommended that SAH hire a qualified roofing contractor to perform the work.

- ***Skylight repairs***

Repairs should be made where wind blown water is leaking through the skylight into the house. It is recommended that SAH hire a qualified contractor to perform the work.

- ***New hydraulic arms for roof hatch***

It is recommended that SAH replace the non-functional arms on the roof hatch with new hydraulic arms. This will make access to the roof easier for contractors to make inspections and repairs as needed.

- ***Address water issues in south wall***

There is moisture in the south wall on the third floor that is causing damage to the plaster. This issue requires further investigation to determine how moisture is getting into the wall and how to resolve the issue. This may require making a small opening in the plaster wall to observe the concealed conditions. There

should also be inspections of the roof above the south wall and the brick and mortar joints on the exterior wall to look for possible locations where water may be infiltrating the wall.

- ***Repair buckled floor in Library***

The floor in the Library is buckled due to a major water leak in 2014. The floor should be repaired. Buckled sections of the floor may need to be replaced with new sections that match the wood species, color, grain, and finish of the existing adjacent floor. The floor in this area has been refinished multiple times and there is concern that it will not be able to be machine sanded again. This will require further consultation with a qualified floor restoration contractor to determine the best method for restoring the floor without replacing it.

- ***Further structural investigation of staircase***

The staircase that runs between the second and third floor has experienced noticeable deflection. Further investigation is recommended to determine how the stair is attached and the condition of the underlying structure. This will likely require a small inspection opening. See *Structural Recommendations* on page 237.

- ***Address water backflow***

The backflow of water through the second floor toilet and sink caused significant water damage to the house in 2014. See *Building and Systems Discussion and Recommendations* beginning on page 238 for recommended solutions for this issue.

- ***Address lighting and public safety issues***

Additional lighting is needed at the Charnley-Persky House. It is recommended that interior and exterior lighting plans be developed and implemented, particularly with regard to public safety. Lighting needs and current light levels should be assessed by a qualified lighting designer. All lighting solutions should be developed in collaboration with Harboe Architects in order to successfully increase lighting levels while also respecting the historic integrity of the house. In addition to addressing lighting, exit signs should be installed and fire extinguishers added where required. All public safety requirements should be reviewed and implemented to bring the house into compliance with city codes (See *Building and Systems Discussion and Recommendations* beginning on page 238).

- ***Restoration of art glass windows and doors***

The lead comes are significantly deteriorated on the art glass casement windows to each side of the front door on the Astor Street façade as well as the art glass doors at the balcony. These doors also often get stuck and are difficult to open and close. It is recommended that the windows and doors be assessed and restored by an experienced art glass conservator.

Recommended Future Work

The following recommended projects do not require immediate attention, but should be addressed in the near future. This work addresses the repair of damaged and missing elements, worn finishes, and deteriorated materials, as well as general improvements and upgrades to the house's systems.

- ***Restore wood floors***

The finish on the wood floors throughout the house is worn and there are several significant scratches. It is recommended that the floors be refinished. There are some areas in the house in which the wood floor has been sanded and refinished multiple times throughout the life of the house and the flooring is too thin to be machine sanded again. These floors should be cleaned, polished and maintained. If restoration is determined to be necessary, these floors may need to be refinished by hand by a qualified flooring restoration contractor.

- ***Restore historic plaster finishes***

The textured plaster finish does not match the historic plaster finish identified by Robert Furhoff in 1987 and concurred by Building Conservation Associates' 2016 report (See Appendix). There are also several areas throughout the house in which the finish plaster is chipped or damaged. Starting with areas with the most plaster damage, such as the first floor alcoves and hall, SAH should consider re-plastering the walls and ceilings in the house to match the original finishes, textures, and colors identified in the finishes analyses. This could be completed in phases.

- ***Restore windows***

With the exception of the windows that had to be recreated as part of the 1987 restoration, the wood window frames and sashes in the house are original. The sashes were retrofitted in the 1980s with insulated glass units. Several of the seals on the insulated glass units have broken causing the fogging on the glass. There are also a couple windows that have cracked glass panes. Air infiltration

is also an issue during winter months. It is recommended that the windows be restored, replacing damaged elements and improving operability. The option of adding storm windows to improve energy efficiency should be investigated. SAH should consult a qualified window restoration contractor to assess and complete this work.

- ***Upgrade data/phone systems***

Internet and phone service and equipment in the house are outdated. It is recommended that SAH consult with its IT systems manager to discuss options for upgrading these systems throughout the house.

- ***Digital development of 3D model***

It is recommended that SAH work with local architecture students (IIT or UIC) to further develop and utilize the digital 3D model that was created through laser scanning the house. The model could possibly be further developed for purposes of interpretation as well as a tool for long term maintenance of architectural elements and materials.

Recommended Maintenance

The following recommendations address ongoing routine maintenance issues in the house.

- ***Repair limestone***

There are some cracks in the limestone that need to be sealed to keep water out and prevent further damage. There are also previous patches that do not match. These patches should be cut out and replaced with mortar patches or stone dutchmen that match the surrounding limestone.

- ***Repair fretted wood panels at balcony***

There is some delamination of the fretted wood panels at the balcony that is likely caused by water infiltration. Select repairs should be made where the panels are damaged and repainted to match the adjacent wood surfaces.

- ***Repair/replace ornamental copper squares on cornice***

Several of the ornamental copper squares have come loose or have fallen off of the cornice. All salvaged squares should be reattached to the cornice. Missing elements should be replaced with new squares that match the material, size and proportions of the existing squares.

- ***Repair and clean iron grills at basement windows***

Many of the iron grills at the basement windows have corrosion on them. The grills should be stripped, corrosion removed, and repainted to prevent future corrosion.

- ***Paint exterior wood elements***

All exterior wood elements including windows, doors, frames, soffits, columns, and other balcony elements should be painted on a regular cycle to prevent damage and rot.

- ***Replace missing brick***

Replace the missing brick on the east façade.

- ***Repair metal vent***

Repair the damaged metal vent on the east façade.

- ***Repair wood floor***

There is a hole in the wood floor in the Butler's Pantry. The hole should be infilled with new flooring to match the existing floor.

- ***Maintain tile hearths***

There are tiles on the fireplace hearths throughout the house that are cracked and fragile. SAH currently has stanchions and ropes surrounding the hearths to keep foot traffic away from them, which should be continued. It is recommended that the tiles be monitored every six months to assess their condition. Cracked but stable tiles can be left in place. If the cracks get worse or tiles break, it is recommended that a qualified tile conservator assess the conditions and provide SAH with restoration options. Original tiles should be preserved wherever possible.

- ***Replace carpets***

The carpeting in the offices on the second and third floors is worn and should be replaced.

- ***Touch-up finishes***

There are several small nicks, scratches, and chips on the wood trim, plaster surfaces, and wood doors that should be touched up to match the existing finish on the adjacent surface. More significant plaster damage will require replacement of larger areas of plaster. See *Recommended Future Work*.

Structural Recommendations

Although the overall condition of the building structure at this time appears to be good, further investigation and structural condition assessment of the building is recommended to focus on the noted conditions within this report and to verify the structural integrity and adequacy of the building structure for its ongoing occupancy and use as follows:

Investigate the typical floor framing at the 1st and 2nd floors as follows:

- Cut a small opening in the ceiling at the underside of each floor to determine if there is a north/south spanning intermediate support beam and verify the floor framing. Perform a structural condition assessment.
- Perform a structural review of the framing to determine if it is structurally adequate for loads imposed on it due to the ongoing occupancy and use.

Investigate the atrium structure further as follows:

- Cut a small opening at the interface of the walls and ceilings at the underside of the 2nd and 3rd floors around the perimeter of the atrium to determine if there are interior bearing walls, brick masonry and/or wood studs, which supports the atrium floor structures. Perform a structural condition assessment.
- Cut a small opening in the ceiling at the underside of the 2nd and 3rd floors to determine the framing of the atrium floor structures. Perform a structural condition assessment.
- Perform a structural review of the atrium floor structures to determine if they are structurally adequate for the loads imposed on it due to the ongoing occupancy and use.
- Review the laser scan point cloud model and/or perform an elevation survey to assess the magnitude and pattern of the downward vertical movements.
- Assess and determine the cause of the downward vertical movements.

Investigate the main staircase further as follows:

- Perform exploratory demolition at the underside of the stairs directly below the 2nd and 3rd floors to determine the framing of the stair structure. Perform a structural condition assessment.
- Determine if the stair reinforcements indicated in the 1988 restorations was implemented.
- Perform a structural review of the stair structures to determine if they are structurally adequate for the loads imposed on it due to the ongoing occupancy and use.
- Review the laser scan point cloud model and/or perform an elevation survey to assess the magnitude and pattern of the downward vertical movements.
- Assess and determine the cause of the downward vertical movements.

Building and System Improvement Discussion and Recommendations

Electrical

The electrical power distribution system is in good condition and does not necessarily need any intervention. Given the lack of spare circuit breaker capacity in the main panel, we would recommend a sub-panel be installed off this main panel with additional circuit breakers to allow for easier expansion. This would not need to be done until the first system expansion requirement.

Exit signs should be designed for this building to provide the proper level of code required egress signage. These signs will need to be illuminated and will need to be complete with a 90-minute backup battery or other means to maintain operation for 90-minutes in the event of a loss of power. These signs should be carefully coordinated for location and aesthetic with the Chicago Building Department to minimize the impact on the historic interiors. In lieu of a traditional battery unit at each fixture we recommend that a central battery unit (UPS) be considered. This could be installed as part of the emergency lighting upgraded system to help minimize cost and impact on interior materials.

An emergency lighting system should be designed for the building. In lieu of battery wall pack units, we recommend consideration of a central battery unit (UPS) that would feed power into the lighting circuits in the path of egress. Depending on how the building is currently wired this method could be fairly easy to install and as a worst case the wiring would need to be adjusted or additional battery capacity added to support unneeded fixtures on a particular circuit. In either case, the benefit is that no additional light fixtures would be required and the existing fixtures in the halls, stairs and toilet rooms could act as the required emergency lighting.

The only other electrical item that we can recommend is continued replacement of low efficacy lamps with high efficacy lamps. This can easily be accomplished in closed fixtures where the lamp source is not readily visible. In fixtures with exposed lamps, there are replacement A-base lamps now available that look very similar to Edison style lamps. These lamps should be considered as they can reduce electrical use by each lamp by as much as 80% over a traditional incandescent lamp.

Fire Protection

We recommend maintaining the existing fire alarm system as operational since it provides an important life safety feature. These devices should be tested regularly to ensure they are fully operational and compliant.

New fire extinguishers should be installed throughout the house to bring the quantity, location and size up to meet code requirements. Currently there is

one extinguisher in the Basement Kitchen, on the first floor in the Butler's Pantry, and one on the third floor in the north storage room (below the attic mounted air conditioning equipment). These extinguishers are all dry chemical type units which is acceptable but they are only 2.5 lb. units in lieu of the 5 lb. units needed for compliance. We recommend a new 5 lb. extinguisher be added on each floor including the basement, an additional extinguisher should be installed in the boiler room. Given the layout of the north and south rooms around the central staircase, it might be advisable to install two extinguishers per floor which would provide for more robust protection. Regardless of these recommendations the life safety inspectors will weigh in where they want them so we recommend walking through the building with that inspector prior to finalizing the quantity and location to ensure that all required locations are covered. A plan for maintaining the extinguishers should also be developed so that they are checked and certified as required. A certified fire protection company can assist with the acquisition and maintenance of the extinguishers.

Plumbing

Given the past sanitary and domestic water flooding in the second floor north toilet room we recommend that steps be taken to mitigate the risk of future issues. These steps should include:

- Regular cleaning of the sanitary and storm pipes leaving the building to ensure that no tree roots or other debris is causing slow waste flow.
- Consideration of storm water system revisions to eliminate the connection of the interior downspouts to the existing sanitary piping inside the house. This would require the interior storm piping to be intercepted at the basement ceiling and routing these pipes overhead to the NE corner of the basement where a dedicated storm water pipe exits the building. Confirmation of the capacity of this existing pipe must be made. All suspended storm piping would also need to be insulated.
- Elimination of the cold chase that exists in the NE corner of the house from the attic down to the second floor toilet room. This could require gaining access to the chases and air stopping of the space to prevent the free movement of cold air down from the attic. If domestic water piping is found to be installed in this outside wall chase it should be rerouted. If the second floor plumbing fixture piping is intimately connected to this chase in any way then steps should be taken to provide a physical and thermal separation of the two interstitial spaces.

The existing water heater is nine years old and while it is in good condition it is approaching the end of its useful life. We recommend monitoring of the water heater and replacement of it with a similar unit at the time of failure. Consideration

could be given to reducing the size of the water heater at that time if usage patterns support that downsizing.

The only other item on the plumbing that could be appreciably improved would be reduction of water use through more water efficient plumbing fixtures and faucets. We do not necessarily recommend fixture replacement except where the faucets are the wrong size and cause water to splash on adjacent wood and plaster surfaces. Individual fixtures can be improved through modification of their internal components such as low flow aerators on faucets and water efficient upgrades to toilets. Both reduction of hot and cold water use will save operating costs through reduced water bills and water heating costs.

Other plumbing equipment such as sump pumps and sewage ejectors should be monitored and replaced in kind when they fail.

Mechanical

The current mechanical system equipment, except for the roof mounted condensing units, has generally reached or exceeded its expected useful life. This includes the boiler, pumps, zone controls, and heat pump air handlers.

Heating

Due to the concern of the loss of the heating system in the winter which would necessitate an emergency repair or replacement, the boiler in particular should be targeted in near term capital budgets for replacement or upgrade as part of a larger renovation project. The replacement boiler should be a volume boiler system that can handle the variations in start-up temperature of a cast iron radiation system. We recommend that the single boiler be replaced with at a minimum of two boilers of 50% capacity each which will provide for a more resilient system should one boiler need to be repaired. If space and budget allowed three boilers each sized for 50% would give 100% redundancy for maximum system reliability. These boiler should be installed in a primary/secondary piping format to allow the boilers to operate at their peak efficiency and the radiator loop to be operated with an independently derived optimum temperature. The pumping would be done with a variable speed pump so that as little flow would be provided as is necessary to meet the current demand of operating radiators. Evaluation of the existing combustion air methodology should be made at the time of boiler replacement. A system that includes either direct connection to the exterior or an improved method of interior air should be implemented to get rid of the wall opening from the boiler room into the path of basement egress.

The current boiler zoning is proving to be ineffective to help maintain an even and acceptable temperature throughout the building. We recommend that

thermostatic zone control valves (Danfoss Valves) be installed on each radiator. This will involve the replacement of the current radiator manual valve with this replacement valve and either a local or remote control actuator, depending on the location and type of radiator. The boiler would also be provided with an updated controller that in addition to activating the boiler on a call from the worst case zone, would also provide for temperature reset of the secondary water based on the outside air temperature. This control method will use less energy and provide for more localized control of the radiators so it would be less likely to result in uneven heating temperatures in the building. Most if not all piping changes would be in the boiler room so this solution, other than the local radiator valve replacement will be minimally impactful on the basement and other areas where piping is routed.

Cooling

The cooling system is less of a concern to the building should it fail unexpectedly but loss of this system would be very hard on staff and guests and could be potentially damaging to historic building fabric. Therefore this system should also be included in any near term capital budget for replacement or upgrade as part of a larger renovation project. To enhance serviceability of the interior equipment, some consideration should be given to relocation of the current attic mount heat pumps with units installed in the storage room immediately below the current attic access. This would allow for reasonable access to the equipment for filter changes as well as regular maintenance that is not possible with the current equipment location. Placement of these units at this location would be reasonably easy given the duct connections would all be directly above. In discussions with staff the idea of losing this storage space did not seem to be a major issue.

The replacement system could take many forms including a geothermal system, but the most cost effective solution is to provide a similar version of the current system. This would require new roof mounted units since there would be a new refrigerant required, but by installing matching equipment, maximum efficiency can be achieved with the least impact on the building. Consideration should also be given to maintaining this unit as an air source heat pump so that it could provide some supplemental heated airflow and also be easily fitted with central humidifiers so that winter humidification can be improved. By operating this system in a reduced fan mode in the winter, relative humidity can be elevated and some of the stratification issues due to the large central staircase can be mitigated.

It has been established through testing that the duct system needs to be sealed to prevent loss of conditioned air into the attic and interstitial spaces. This will enhance the system operation especially in severe weather. The method of sealing this ductwork should be investigated further with a preliminary recommendation of a

product such as Aeroseal that is sprayed into the ducts and can seal openings as large as 5/8". Other methods of sealing the ducts are largely too invasive to be considered as they would require removal of walls and ceilings to access ducts in place.

Building

The building envelope is in generally good condition with fairly low infiltration rates and good performing walls and window assemblies. There is always room for improving these aspects of the envelope though so consideration should be given to reducing infiltration through improvements to the window seals. While improvements to the insulated glass panes installed in the 80's could slightly improve their performance, given the limited useful life of these types of replacement glazing units, we instead recommend selective replacement as glazing units fail. Provided the glass visibility and color can be maintained, these glazing units could include low-E coatings and argon gas fill, but only if they don't present an aesthetic change.

As discussed in the plumbing section, chases that house piping or that intersect with plumbing fixture chases should be isolated so that any cold infiltration air doesn't cause freezing issues at these fixtures.

The roof assembly and attic should be addressed to create a semi-tempered attic space by adding additional insulation to the roof deck and removing insulation at the attic floor level. This change in conjunction with improvements to the duct leakage should greatly improve the HVAC system operation and also help to lessen the stratification that is occurring in the building between the first and third floors. Additionally sealing of the attic space to the outside to lessen infiltration at the skylight will also improve the overall comfort of the building and reduce operating costs of the HVAC system.

Budget Pricing for Recommended Work

The purpose of developing budget pricing for recommended work at the Charnley-Persky House is to provide the Society of Architectural Historians (SAH) with a conceptual understanding of the costs required to both conduct ongoing maintenance and carry out future restoration projects. Given the historic significance of the house, it is important that SAH be financially prepared for both long term restoration work as well as short term repairs. The estimated budgets provided will allow SAH to successfully raise the funds necessary for future restoration projects and establish reserves for routine maintenance. SAH should also consider developing a fund for unforeseen repairs that may be necessary for the 125 year old house. Having a fundraising plan in place based on the cost estimates provided will allow SAH to successfully plan for the future use and care of the house.

The following budget pricing consists of rough estimates developed by Berglund Construction, a general contractor specializing in restoration, for recommended rehabilitation and maintenance work at the Charnley-Persky House. These estimates were based on the conceptual scope of work inferred from the recommendations summarized in the previous sections of this chapter. Without bid documents (construction drawings and specifications), only conceptual cost estimates could be developed. Because they are rough estimates, the numbers may vary from actual costs required to complete the work and are intended only for the purpose of providing the SAH with a general idea of budgets required for fundraising for future projects at the house. For all recommended work items listed below, the SAH should request multiple competitive bids from qualified contractors when the time comes to complete each project. For any proposed work, the SAH should carry a contingency of twenty percent (20%).

1. **Roof Repairs at Southeast Corner of Skylight:** Work includes all necessary safe access and allowance for a roofer/sheet metal tradesperson to perform repairs over a 2-day period.
Budget Value: \$5,000
2. **Skylight Repairs:** Provide necessary safe access and glazier/sheet metal tradesperson for a period of one day to execute repairs to the skylight. This work includes sheet metal flashing repairs and replacement of sealant in skylight.
Budget Value: \$3,000
3. **New Hydraulic Arm at Roof Hatch:** Work scope includes roof hatch retrofit and installation of hydraulic arm to assist operation of hatch.
Budget Value: \$1,500

4. **South Wall Moisture Issue:** Includes provisions to erect the appropriate enclosure and creating an opening in the existing plaster wall to facilitate investigation work. Subsequent to the investigation work being completed, and once the issue is resolved, the wall will be re-plastered and repainted, restoring the areas disturbed. Any necessary repair work will be completed at an additional cost to be determined.
Budget Value: \$10,000
5. **Repair Buckled Floor in Library:** Work includes erecting the necessary enclosure to execute repairs/replacement of 100 SF of tongue and groove wood flooring, and refinishing of the entire library wood floor.
Budget Value: \$10,000
6. **Staircase Structural Investigation:** Work scope includes cutting a small opening in the plaster at the 2nd and 3rd floor locations, review of existing structural conditions, and performing necessary repairs to restore the opening including required plaster and paint repairs.
Budget Value: \$9,000
7. **Address Water Backflow:** Work scope includes reworking of the storm and sanitary sewer to eliminate the combined sewer in the building. This work would include redirecting the existing northwest and southwest storm drains to the northeast corner of the building where the storm drain is already split from the sanitary sewer. It would also include insulation of all horizontal storm piping, and any necessary wall and ceiling patches and painting.
Budget Value: \$22,000
8. **Restore Wood Floors:** Work includes refinishing of all wood floors located throughout the house on the 1st through 3rd levels. Work is based upon performing refinishing work in phases that would be isolated utilizing the necessary enclosures and ventilation considerations.
Budget Value: \$45,000
9. **First Floor Plaster Repair/Replacement & Paint:** Work includes removing existing wood trim as necessary to fully remove all existing in-place plaster and replace to match original finish including finish painting and wood trim reinstallation. Also included is an allowance of \$20,000 to address any miscellaneous or electrical work required.
Budget Value: \$285,000

10. **Second Floor Plaster Repair/Replacement & Paint:** Same work scope as Item 9 above.
Budget Value: \$275,000
11. **Third Floor Plaster Repair/Replacement & Paint:** Same work scope as Items 9 and 10 above.
Budget Value: \$275,000
12. **Restore Windows:** Work includes performing necessary repairs to 44 wood windows (excludes art glass windows which are priced separately in item 13) and includes wood Dutchman, re-glazing, perimeter sealant replacement, replacement of broken and failed glass, repainting, and necessary adjustment to provide a fully functional wood window assembly. Not all windows need the same level of work. The windows that get stuck may just require adjustments to the weights and chains. Windows in which the insulated glass units (IGU) are cracked or have failed will require replacement of the IGUs.
Budget Value: \$90,000 (full restoration of all 44 windows)
13. **Restore Balcony Doors & Art Glass:** At the entrance door side lites, work includes removing existing art glass, restoring temporary infill while the art glass assembly would be transported to an art glass studio for re-caming. During that period, the necessary repairs to side door would be performed. At the balcony doors, perform the same work as noted above.
Budget Value: \$30,000
14. **Upgrade Data/Phone Systems:** Work scope and budget pricing to be provided at a future date. It is recommended that the SAH request pricing for this item from its IT provider.
Budget Value: TBD
15. **Improve Lighting:** Work scope and budget pricing to be provided following a lighting study of the house.
Budget Value: TBD
16. **Repair Limestone:** Work scope includes performing limestone crack repairs at (12) locations and limestone patch repairs at (2) locations on exterior of house.
Budget Value: \$3,000
17. **Repair Fretted Wood Panels at Balcony:** Work scope includes an allowance of skilled finish carpenter for (3) days to perform repairs. Also includes \$3,500 for

custom woodwork replacement materials.

Budget Value: \$6,500

18. **Repair/Replace Ornamental Copper Squares on Cornice:** Work includes performing repairs at (20) locations. Also included is an allowance of \$2,500 to create or locate the proper stamp for ornamentation. Also included are monies for a man-lift access.

Budget Value: \$17,500

19. **Repair/Clean Iron Grills at Basement Windows:** Work includes (12) locations of existing cast iron grills where we have included a budget of \$750 at each location to perform repairs and recoating of finish.

Budget Value: \$9,000

20. **Replace Missing Brick:** Work includes removing/replacing (1) brick (Chicago Common) on the east elevation of the house.

Budget Value: \$250

21. **Repair Metal Vent:** Work includes repairing metal vent located on east elevation.

Budget Value: \$750

22. **Repair Wood Floor:** Work includes repairing hole in floor in butler's pantry.

Budget Value: \$3,500

23. **Replace Carpets:** Work includes replacing carpets at the following locations: 2nd Floor Office Room 201, 2nd Office Room 209, 3rd Floor Office Room 201, and 3rd Floor Office Room 208. We have included an allowance of \$45/ SY.

Budget Value: \$6,500

24. **Touch-up Finishes:** Work includes providing necessary skilled tradespeople to perform miscellaneous touch-up work, perform repainting, plastering and wood refinishing throughout the house. We have included a budget of \$10,000 for the 1st floor and \$7,500 each for the 2nd and 3rd floors.

Budget Value: \$30,000

25. **Fire Protection and MEP:** Work includes the following:

Fire Protection

Provide five new 5 lb fire extinguishers (one per floor plus one in boiler room)

Budget Value: \$500

Install emergency lighting and exit signs throughout the building per required Chicago Building code. To be part of future lighting study.

Budget Value: TBD

Plumbing

Reroute plumbing in northeast corner of the house and associated infiltration measures recommended to prevent freeze potential of piping.

Budget Value: \$7,800

Install new water heater to replace aging unit.

Budget Value: \$1,200

Water reduction technology through fixture modification (aerators, low volume flush kits, etc.)

Budget Value: \$500

Mechanical Systems

New high efficiency boilers (3 at 50%) along with sequencing controls, new pumps, and boiler room piping changes.

Budget Value: \$45,000

Modification to system to enhance pump zone control and resolve zone issues.

Budget Value: \$5,000

Addition of thermostatic zone valves on each radiator.

Budget Value: \$7,500

New air handlers for air conditioning relocated into storage room immediately below current location complete with new roof mounted condensing units.

Budget Value: \$15,000

Air duct sealing with Aeroseal.

Budget Value: \$5,000

Miscellaneous supporting controls and other AC work.

Budget Value: \$5,000

Cyclical Inspection and Maintenance Checklist

The following cyclical inspection and maintenance checklist is designed to allow SAH to routinely inspect building elements and materials as well as track ongoing maintenance at the Charnley-Persky House. General routine maintenance that may be necessary on an annual basis includes touch-up painting (both interior and exterior), touch-ups of the finish on wood trim and moldings, plaster repairs and patches, floor cleaning, carpet cleaning, cleaning of tile and grout, window cleaning, and HVAC systems cleaning and maintenance.

In a historic structure, such as the Charnley-Persky House, routine visual inspection of the building's condition is crucial to its long-term care and maintenance. Inspections should be carried out on an annual, semi-annual, or more frequent schedule depending on the building element or material being examined. An inspection frequency chart is provided below to help determine the regularity of inspections.

INSPECTION FREQUENCY CHART		
Feature	Minimum Inspection Frequency	Season
Roof	Annually	Spring or fall; every 5 years by roofer
Chimneys	Annually	Fall, prior to heating season; every 5 years by mason
Roof Drainage	6 months; more frequently as needed	Before and after wet season, during heavy rain
Exterior Walls and Porches	Annually	Spring, prior to summer/fall painting season
Windows	Annually	Spring, prior to summer/fall painting season
Foundation and Grade	Annually	Spring or during wet season
Building Perimeter	Annually	Winter, after leaves have dropped off trees
Entryways	Annually; heavily used entries may merit greater frequency	Spring, prior to summer/fall painting season
Doors	6 months; heavily used entry doors may merit greater frequency	Spring and fall; prior to heating/cooling seasons
Tile Fireplace Hearths	6 months	Before and after busiest tour season
Attic	4 months, or after a major storm	Before, during and after wet season
Basement	4 months, or after a major storm	Before, during and after wet season

Charnley-Persky House Cyclical Maintenance Checklist

Building Feature	Material(s)	Location	Description of Condition(s)	Date of Inspection	Maintenance Action Required (If Applicable)	Date Work Completed	Photo Number(s)
EXTERIOR							
Roof							
Covering	Copper						
Flashing	Metal						
Gutters	Copper						
Cornice	Copper						
Parapet Wall	Brick						
Chimneys	Brick						
Skylight	Copper Glass						
Mechanical Equipment	Metal						
North Facade							
Exterior Wall	Brick Limestone						
Windows	Wood sash and frame Glass panes Limestone sills Metal grills (basement)						
South Facade							
Exterior Wall	Brick Limestone						
Windows	Wood sash & frame Glass panes Limestone sills						
Door	Wood Glass panes Bronze hardware						
East Facade							
Exterior Wall	Brick						
Window	Wood sash & frame Glass panes Limestone sill						
Door	Wood door & frame Glass panes Bronze hardware						
West Façade							
Exterior Wall	Brick Limestone						

Charnley-Persky House Cyclical Maintenance Checklist

Building Feature	Material(s)	Location	Description of Condition(s)	Date of Inspection	Maintenance Action Required (If Applicable)	Date Work Completed	Photo Number(s)
Windows	Wood sash & frame Glass panes Lead cames Limestone sill						
Door	Wood door & frame Glass panes Bronze hardware						

Balcony							
Columns	Painted wood						
Fretted Panels	Painted wood						
Railing	Painted wood						
Cornice	Painted wood						
Decking	Painted wood						
Doors	Wood door & frame Lead cames Glass Bronze hardware						

INTERIOR							
Basement							
Floors	Ceramic tile Vinyl tile Concrete						
Walls	Masonry Painted plaster						
Ceiling	Painted plaster Exposed wood joists						
Millwork	Wood trim Wood cabinets						
Doors	Wood doors & frames Bronze hardware						
Windows	Wood sashes & frames Glass Bronze hardware						
Light Fixtures	Glass Brass						
Plumbing Fixtures	Porcelain Concrete						
Mechanical Equipment	Metal						
Electrical Equipment	Metal Wires						

Charnley-Persky House Cyclical Maintenance Checklist

Building Feature	Material(s)	Location	Description of Condition(s)	Date of Inspection	Maintenance Action Required (If Applicable)	Date Work Completed	Photo Number(s)
First Floor							
Floors	Wood						
Walls	Painted Plaster						
Ceiling	Painted Plaster						
Millwork	Wood trim Wood cabinets						
Doors	Wood doors & frames Bronze hardware						
Windows	Wood sashes & frames Glass Bronze hardware						
Fireplaces	Wood mantel Mosaic tile Ceramic tile Marble						
Light Fixtures	Glass Brass						
Mechanical Equipment	Metal floor grills						
Plumbing Fixtures	Metal sink						
Second Floor							
Floors	Wood						
Walls	Painted Plaster						
Ceiling	Painted Plaster						
Millwork	Wood trim Wood cabinets						
Doors	Wood doors & frames Bronze hardware						
Windows	Wood sashes & frames Glass Bronze hardware						
Fireplaces	Wood mantel Ceramic tile						
Light Fixtures	Glass Brass						
Plumbing Fixtures	Porcelain						
Third Floor							
Floors	Wood						
Walls	Painted Plaster						
Ceiling	Painted Plaster						

Charnley-Persky House Cyclical Maintenance Checklist

Building Feature	Material(s)	Location	Description of Condition(s)	Date of Inspection	Maintenance Action Required (If Applicable)	Date Work Completed	Photo Number(s)
Millwork	Wood trim Wood cabinets						
Doors	Wood doors & frames Bronze hardware						
Windows	Wood sashes & frames Glass Bronze hardware						
Fireplace	Wood mantel Ceramic tile						
Light Fixtures	Glass Brass						
Plumbing Fixtures	Metal sink						
Skylight	Wood frame Wired glass						
Stairs							
Treads	Wood						
Risers	Wood						
Stringers	Wood						
Railings	Wood						
Newel Posts	Wood						
Balusters	Wood						
Fretted Panels	Wood						
Walls	Painted Plaster						

Typical Maintenance Conditions

The following is a list of typical conditions that may be observed during the cyclical maintenance inspection:

Exterior Inspection

Roof

- Punctures in copper roof
- Joints or seams open or broken
- Flashing is loose, corroded or broken
- Uncaulked openings at flashing
- Ponding of water on flat portion of roof
- Leaking inside building
- plugged drain pipe
- clogged gutters
- broken seams in gutter
- broken, cracked or missing cornice elements
- damaged soffit

Exterior Wall

- Loose or missing mortar joints
- Cracked brick or stone
- Staining on stone or brick
- Spalling stone and/or brick
- Efflorescence on brick
- Cracking/splitting/rotting of wood elements
- Missing wood elements
- Peeling, cracking or alligatoring paint

Fenestration

- Door alignment
- Deterioration of door/window elements
- Worn finish on doors/windows
- Proper operation of hardware
- Proper operation of window sashes
- Loose/damaged weatherstripping
- Deterioration of wood framing
- Cracked glass
- Broken seal/fogged window on IG units
- Deteriorated comes on leaded glass windows/doors
- Corrosion on iron grills on basement windows

Balcony

- Cracked/peeling paint on wood surfaces
- Cracked columns
- Cracked/damaged wood decking
- Damaged wood fretwork and ornament
- Wood rot/termite infestation
- Mold and fungus growth

Interior Inspection

Masonry Foundation Walls (where visible)

- Cracks
- Leaning
- Bulges
- Loose mortar joints
- Spalling stone/brick
- Staining on stone/brick
- Moisture on wall

Ceramic tile floors

- missing/loose grout
- loose joints
- split or cracked tiles
- missing tiles

Wood floors

- Cracks/damaged wood boards
- Squeaking
- Worn/faded finish
- Scratches

Carpets

- Frayed edges
- Damaged areas
- Stains
- Worn areas

Plaster walls

- Cracks
- Bulges
- Loose/damaged plaster
- Chipped/Peeling/blistering paint
- Dampness/mildew/mold stains

Millwork

(Includes wood trim, moldings, baseboard, wainscot, crown molding, door/window casings, and built-in cabinets)

- Cracks
- Worn finish
- Chipped/gouged
- Scratches
- Separated joints
- Splits
- Stains

Stairs

- Loose railing/balusters/newel posts
- Gaps between treads, risers, stringers
- Stair pulling away from wall
- Scratches
- Splits
- Worn finishes
- Worn runner
- Broken/damaged spindles
- Damage to ornamental panels

Interior Doors

- Scratches/gouges
- Missing bead trim
- Worn finishes
- Door alignment
- Functioning hardware
- Proper operation of locks and hinges
- Cracks/splits in panels

POLICIES, STRATEGIES & PROCEDURES

The following policies, strategies, and procedures identify what needs to be done to retain the significance of the Charnley-Persky House into the foreseeable future. They are intended to provide SAH with guidance to successfully sustain and conserve the house, raise standards of care and management, find appropriate uses, and develop potential for access and community benefit.

Follow the Secretary of Interior Standards

All future work at the Charnley-Persky House should follow the *Secretary of Interior Standards for Rehabilitation*. These Standards include:

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

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

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Maintain the house to prevent future deterioration

Proper maintenance of a historic building is crucial to its ongoing usability and sustainability. In order to maintain the Charnley-Persky House and prevent future deterioration, SAH should perform routine maintenance as outlined in the cyclical inspection and maintenance checklist and follow the recommended inspection frequency chart included in this Conservation Management Plan.

Prioritize repairs and treatments

Some repairs may be more critical to preventing costly damage to the house and jeopardizing the safety of its occupants. Repairs to the exterior envelope that prevent water infiltration as well as structural repairs should be the first priorities. Repairs and treatments that affect user comfort, such as HVAC and electrical upgrades, window restoration, lighting upgrades, and the installation of additional wall insulation, should be considered as secondary priorities. Restoration treatments that only address aesthetic issues that will not lead to irreparable damage should be considered last. These treatments include the restoration of plaster walls, wood trim and millwork, and wood flooring.

Appropriate uses

Any proposed future uses at the Charnley-Persky House should be compatible with the current use and configuration of the house. No major modifications should be made to the exterior or interior primary and secondary preservation zones of the house for new uses. Significant modifications to the house would negatively impact its historic integrity and potentially jeopardize its National Landmark status.

Decision making

It is important that all decisions made about the maintenance, repair, and restoration of the house are carefully and strategically deliberated. This includes prioritizing repairs and treatments; considering costs, budgets and fundraising; thinking about future use of the house; involving stakeholders; and determining if the changes will have a positive impact on the day-to-day operations and historic integrity of the house. SAH should develop a plan with guidelines for how decisions that affect the short and long term care and maintenance of the Charnley-Persky

House are determined in order to be certain all decisions are being made in the best interest of the house.

Work within available resources

SAH should develop a budget based on the estimated costs determined for the recommended work in the Conservation Management Plan and on fundraising goals and expectations. As much as possible, SAH should adhere to the budget developed for repair and restoration work. A contingency should also be established for unexpected emergency repairs.

Manage information and archives

A plan should be developed to manage information and archives relating to the Charnley-Persky House. The archives should be organized in a central location with a detailed, categorized, and easily searchable list of items that are included. Digital information should also be managed in categorized file folders and backed up on more than one system in order to prevent the loss of digital material.

Planning for disasters

SAH should develop a disaster plan. This should include both a plan to prevent damage to the house from substantial rain, wind, fire, and other potentially devastating events, as well as a plan for moving forward after a disaster occurs. This plan should include emergency contact information for all staff as well as the insurance company; contact information for roofers, masons, plumbers, HVAC, window/glass repair, and disaster clean-up specialists; defined paths of egress from the house; locations of fire extinguishers; location of water service shut-off; location of circuit breakers; and detailed plans for how to handle all potential disaster scenarios. This plan should also include a checklist for routine inspection of smoke detectors, fire extinguishers, carbon monoxide detectors, security systems, and other preventative devices. There should also be a member of the staff that is assigned to checking on the house during or shortly after severe weather occurs to make sure no leaking, flooding, or damage has occurred.

Security for the house

The Charnley-Persky House currently has a security system installed. As noted above, this system should be routinely inspected to insure that it is working properly. It is important that the security system be activated every evening when the last staff member leaves. Making sure all exterior doors and windows (in unoccupied rooms) are securely locked at all times is also imperative. SAH may also want to designate a neighbor that is around outside of normal business hours to keep general watch

of the house and notify SAH staff (and police/fire department) if any suspicious or potentially dangerous situations are occurring in or around the house.

Comply with regulations (local, state, federal)

The Charnley-Persky House is a City of Chicago Landmark, is listed on the National Register of Historic Places, and is a National Historic Landmark. As a City of Chicago Landmark there are regulations in place that protect the exterior of the house from significant alterations or additions. All substantial exterior work (excluding minor repairs) is reviewed by the Historic Preservation Division staff as well as the Commission on Chicago Landmarks and either approved or denied. There are no state or federal regulations that would affect the house; however, any considerable alterations or additions could result in the Charnley-Persky House being delisted from the National Register of Historic Places and having its National Historic Landmark status revoked. Although SAH has and continues to be a good steward of the house, all staff and board members should be aware of these regulations.

Managing visitors to the house

As discussed in the Programming chapter, tours of the Charnley-Persky House can be disruptive to staff, but they also provide revenue and an exceptional opportunity for visitors to see and learn about this magnificent work of architecture. SAH should assess its current tour program and develop options for improving visitor experience while also maintaining a successful work environment. Some suggestions for enhancing visitor experience are listed in Chapter 6 or this Conservation Management Plan.



8

BIBLIOGRAPHY

BIBLIOGRAPHY

"Among Architects and Builders." *Chicago Daily Tribune*, July 5, 1891, 14.

Ancestry.com. *1880 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc, 2010. Original data: Tenth Census of the United States, 1880. (NARA microfilm publication T9, 1,454 rolls). Records of the Bureau of the Census, Record Group 29. National Archives, Washington, D.C.

Ancestry.com. *Reports of Deaths of American Citizens Abroad, 1835-1974* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2010. Original record: National Archives and Records Administration (NARA); Washington, D.C.; General Records of the Department of State; Record Group: RG59-Entry 205; Box Number: 1527; Box Description: 1930-1939 Switzerland Ca - Ku

Ancestry.com. *U.S., Consular Registration Certificates, 1907-1918* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2013. Original records: Consular Registration Certificates, compiled 1907–1918. ARC ID: 1244186. General Records of the Department of State, 1763–2002, Record Group 59. National Archives at Washington, D.C.

"Architect to be Buried Today in Graceland." *Chicago Daily Tribune*, April 16, 1924, 10.

Architectural Record, vol. 1, no. 1 (July-September 1891).

Barton, Timothy V. *Charnley House Historical Research Report*, February 1987.

Bender, Thomas. "A Great American Life." *Grand Street*, vol. 7, No. 3 (Spring 1988): 186-193.

Bluestone, Daniel. *Constructing Chicago*. New Haven and London: Yale University Press, 1991.

Brooks, H. Allen. "Frank Lloyd Wright – Towards a Maturity of Style (1887-1893)." *AA Files*, no. 2 (July 1982): 44-49.

Bukro, Casey. "Throwing Charnley House Into the Landmark Arena." *Chicago Tribune*, May 21, 1972.

Coffin, Charles H. "Louis H. Sullivan: Artist Among Architects, American Among Americans." *The Architectural Annual*, 2nd Edition, Kelsey, Albert ed. (1901).

Chambers, J. Henry. *Cyclical Maintenance for Historic Buildings*. Washington, DC: Office of Archaeology and Historic Preservation, National Park Service, U.S. Department of the Interior, 1976.

"Chicago Real Estate Sales in Detail for Week." *Chicago Daily Tribune*, November 12, 1911.

Condit, Carl W. *The Chicago School of Architecture: A History of Commercial and Public Building in the Chicago Area, 1875-1925*. Chicago: University of Chicago Press, 1964.

Conservation Management Plans: A Guide. London: Heritage Lottery Fund.

Encyclopedia of Chicago Online. Chicago Historical Society. Accessed October 15, 2016.

Ferree, Barr. *Artistic Domestic Architecture In America*. 1895, 456.

Fink, John. "Keeping Astor Street Golden." *Chicago Tribune*, May 20, 1973.

Furhoff, Robert. *Investigation of Interior Finishes, The Charnley House*. Chicago, Illinois, March 1987.

Gapp, Paul. "A high-rise boom dims the Gold Coast's luster." *Chicago Tribune*, August 25, 1974.

Gapp, Paul. "Builders knock on Astor Street's historic doors." *Chicago Tribune*, July 18, 1976.

Gapp, Paul. "Institute is Born: Skidmore Owings Will Sponsor Chicago Center." *Chicago Tribune*, October 5, 1986.

Gebhard, David. "Louis Sullivan and George Grant Elmslie." *Journal of the Society of Architectural Historians*, vol. 19 (May 1960): 62-68.

Guideline: Conservation Management Plans. Department of Environment and Heritage Protection, State of Queensland, Australia, 2015.

Harrington, Elaine, Richard Longstreth, Pauline Saliga, Elizabeth Sippel, and Paul Sprague. "James Charnley House National Historic Landmark Nomination." September 10, 1997.

Hitchcock, Henry Russell. *In the Nature of Materials: The Buildings of Frank Lloyd Wright 1887-1941*. New York: Duell, Sloan and Pearce, 1942.

Hotchkiss, George W. *Industrial Chicago: The Lumber Interests*. Chicago: Goodspeed Publishing Company, 1894, 452-453.

Hutchinson, Louise. "Architectural Landmark's Owner Is Hostess to Busloads: Adler Home in Astor Street is Open House." *Chicago Tribune*, February 21, 1965.

Interview with John Eifler, March 24, 2017.

Interview with John Vinci, July 21, 2016.

Interview with Pauline Saliga and William Tyre, June 29, 2016.

Interview with Robert Furhoff, August 18, 2016.

Interview with Timothy Samuelson, November 29, 2016.

"James Charnley House." *Drawings, Photographs, Written Historical and Descriptive Data*, HABS No. ILL-1009, Historic American Building Survey, National Park Service, Department of the Interior, 1964.

Jones, Wilbert, Kathleen Willis Morton, and Maureen O'Brien. *Chicago's Gold Coast*. Charleston: Arcadia Publishing, 2012, 9-15.

Kamin, Blair. "Seymour H. Persky, architectural preservationist, dies at 92." *Chicago Tribune*, March 23, 2015.

Landis, Dylan. "Old Gold Coast: Long-hidden Charnley House opens for a view into collaboration between Sullivan, Wright." *Chicago Tribune*, October 23, 1988.

Larson, Gerald R. and Roula Mouroudellis Geraniotis. "Toward a Better Understanding of the Evolution of the Iron Skeleton Frame in Chicago." *Journal of the Society of Architectural Historians*, Vol. 46 (March 1987): 39-48.

Longstreth, Richard. *The Charnley House: Louis Sullivan, Frank Lloyd Wright, and the Making of Chicago's Gold Coast*. Chicago: University of Chicago Press, 2004.

Manson, Grant Carpenter. *Frank Lloyd Wright to 1910: The First Golden Age*. New York: Van Nostrand Reinhold Company, 1958.

Markoutsas, Elaine. "The charms of Charnley." *Chicago Tribune*, May 16, 1975.

Miller, Donald L. *City of the Century: The Epic of Chicago and the Making of America*. New York: Simon and Schuster, 1996.

Morgan, Keith. "Charnley-Perksy House: Architectural History and the Society." *Journal of the Society of Architectural Historians*, vol. 54, no. 3 (September 1995): 276-277.

Morrison, Hugh. *Louis Sullivan: Prophet of Modern Architecture*. New York: W. W. Norton & Company, 1935.

Nickel, Richard and Aaron Siskind, with John Vinci and Ward Miller. *The Complete Architecture of Adler & Sullivan*. Chicago: The Richard Nickel Committee, 2010.

Page, Eleanor. "Everything looks Wright for their future benefit." *Chicago Tribune*, February 19, 1975.

Park, Sharon C. *Preservation Brief 47: Maintaining the Exteriors of Small and Medium Size Historic Buildings*. Washington, DC: Heritage Preservation Services, National Park Service, June 2007.

"Potter Palmer: His Grand House on the North Side." *Chicago Daily Tribune*, February 22, 1882.

Progressive Architecture, vol. 4 (1989): 80.

Rodriguez, Meredith. "Students dig for architectural treasures in Gold Coast." *Chicago Tribune*, July 28, 2015.

Saliga, Pauline. "Charnley-Persky House Designated a National Historic Landmark," *Newsletter of the Society of Architectural Historians*, vol. XLII, no. 6 (December 1998): 2.

Spencer, Robert C. "Brick Architecture in and About Chicago." *The Brickbuilder*, vol. 12, no. 9 (September 1903).

Small, Alex. "Old Mansions Pass and With Them an Epoch." *Chicago Daily Tribune*, January 10, 1954.

Talmadge, Thomas E. "The Chicago School." *The Architectural Review*, vol. XV, no. 4 (April 1908).

"The Charnley House." *Chicago Tribune*, February 16, 1964.

The Charnley House. Chicago: Skidmore, Owings & Merrill Foundation, May 1986.

The Inland Architect and News Record, vol. XVIII, no. 1 (August 1891).

Twombly, Robert. *Louis Sullivan: His Life and Work*. New York: Viking Penguin Inc., 1986, 233.

"Who wants to save Astor?" *Chicago Tribune*, May 20, 1973.

Wright, Frank Lloyd. *An Autobiography*. New York: Duell, Sloan and Pearce, 1943.

Yale University Obituary Record of Graduates Deceased During the Year Ending July 1, 1928. Yale University: New Haven, 1928, 143-144.

Historic Images and Drawings from the following sources:

Chicago History Museum

Library of Congress

Oak Park Public Library

Ryerson and Burnham Archives, Art Institute of Chicago

Skidmore, Owings & Merrill Project Files

Society of Architectural Historians/Charnley-Persky House Archives

A black and white photograph of a staircase. On the left, a door is partially open, showing a silver doorknob. The staircase has several steps with dark, textured treads. A white handrail runs along the right side of the stairs. To the right of the stairs, a hallway leads away, with a door at the end. The walls are light-colored, and the overall scene is well-lit.

PHOTOGRAPHY

INTERIOR FINISHES REPORT

BLOWER DOOR INSPECTION REPORT

TEMPERATURE & HUMIDITY STUDY GRAPHS

9

APPENDIX A



Figure 1 - Looking southeast at the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 2 - West facade of the Chamley-Persky House (Leslie Schwartz, 2016).



Figure 3 - Detail of the west balcony on the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 4 - North facade of the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 5 - North side of the Charnley-Persky House looking south (Leslie Schwartz, 2016).

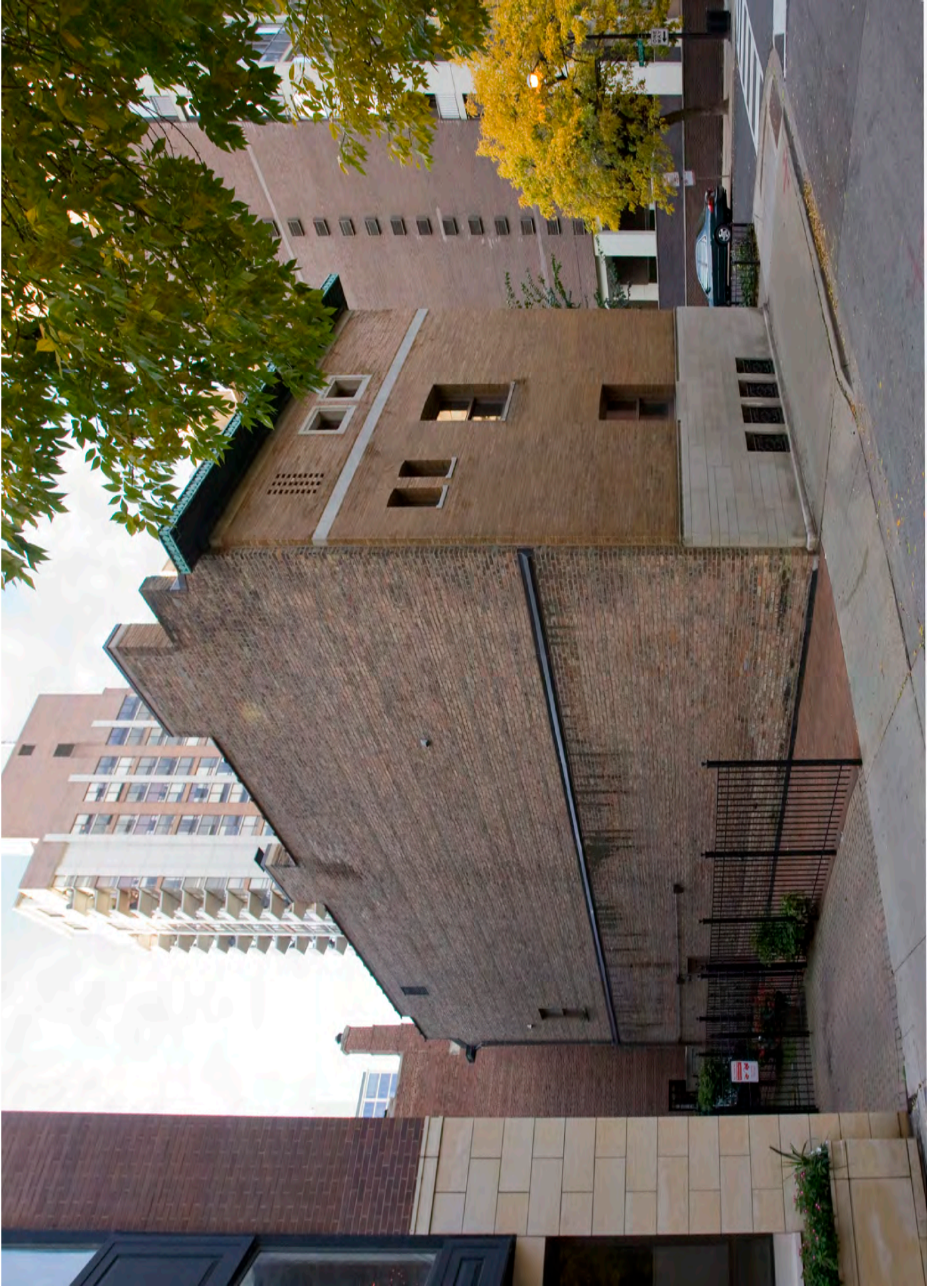


Figure 6 - View of the east side of the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 7 - View of the southwest side of the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 8 - View of the southwest side of the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 9 - View of the main entrance on the west side of the Charney-Persky House (Leslie Schwartz, 2016).



Figure 10 - Detail of the front door of the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 11 - Looking down into the courtyard on the south side of the Charnley-Persky House (Leslie Schwartz, 2016).



Figure 12 - In the courtyard looking east (Leslie Schwartz, 2016).



Figure 13 - Basement windows on the west side of the Charney-Persky House (Leslie Schwartz, 2016).



Figure 14 - On the balcony looking south (Leslie Schwartz, 2016).



Figure 15 - Basement storage room looking north (Leslie Schwartz, 2016).



Figure 16 - Basement corridor looking north (Leslie Schwartz, 2016).



Figure 17 - Servant stairs from the basement to first floor (Leslie Schwartz, 2016).



Figure 18 - Tour center/original kitchen looking east (Leslie Schwartz, 2016).



Figure 19 - Tour center/original kitchen looking southeast (Leslie Schwartz, 2016).



Figure 20 - Kitchen looking south (Leslie Schwartz, 2016).



Figure 21 - Detail of dumbwaiter in the kitchen (Leslie Schwartz, 2016).



Figure 22 - Basement vault (Leslie Schwartz, 2016).



Figure 23 - Library looking southeast (Leslie Schwartz, 2016).



Figure 24 - Detail of Library fireplace (Leslie Schwartz, 2016).



Figure 25 - Library cabinets and decorative end post (Leslie Schwartz, 2016).



Figure 26 - First floor hall looking northeast (Leslie Schwartz, 2016).



Figure 27 - Fireplace in the first floor hall (Leslie Schwartz, 2016).



Figure 28 - Door from hall to vestibule (Leslie Schwartz, 2016).



Figure 29 - First floor hall looking east at stair (Leslie Schwartz, 2016).



Figure 30 - First floor hall looking northeast at stair (Leslie Schwartz, 2016).



Figure 31 - First floor hall looking north toward Library(Leslie Schwartz, 2016).



Figure 32 - First floor hall looking southwest at alcove (Leslie Schwartz, 2016).



Figure 33 - Dining Room looking south (Leslie Schwartz, 2016).



Figure 34 - Dining Room fireplace(Leslie Schwartz, 2016).



Figure 35 - Dining Room looking north (Leslie Schwartz, 2016).



Figure 36 - Butler's Pantry looking south (Leslie Schwartz, 2016).



Figure 37 - Servant's Stair at first floor landing (Leslie Schwartz, 2016).

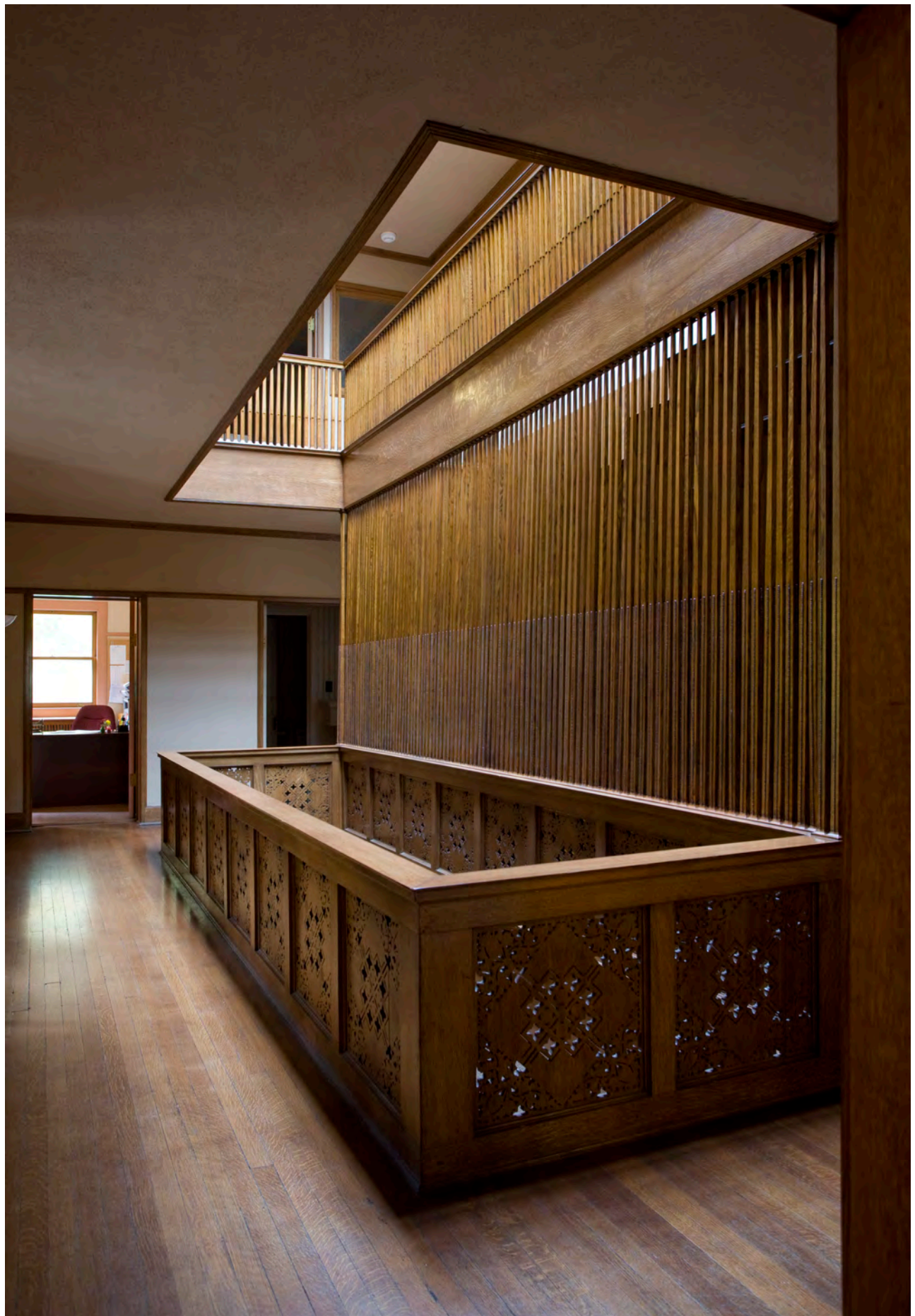


Figure 38 - Second floor stair hall looking northeast (Leslie Schwartz, 2016).



Figure 39 - Second floor stair hall looking south (Leslie Schwartz, 2016).

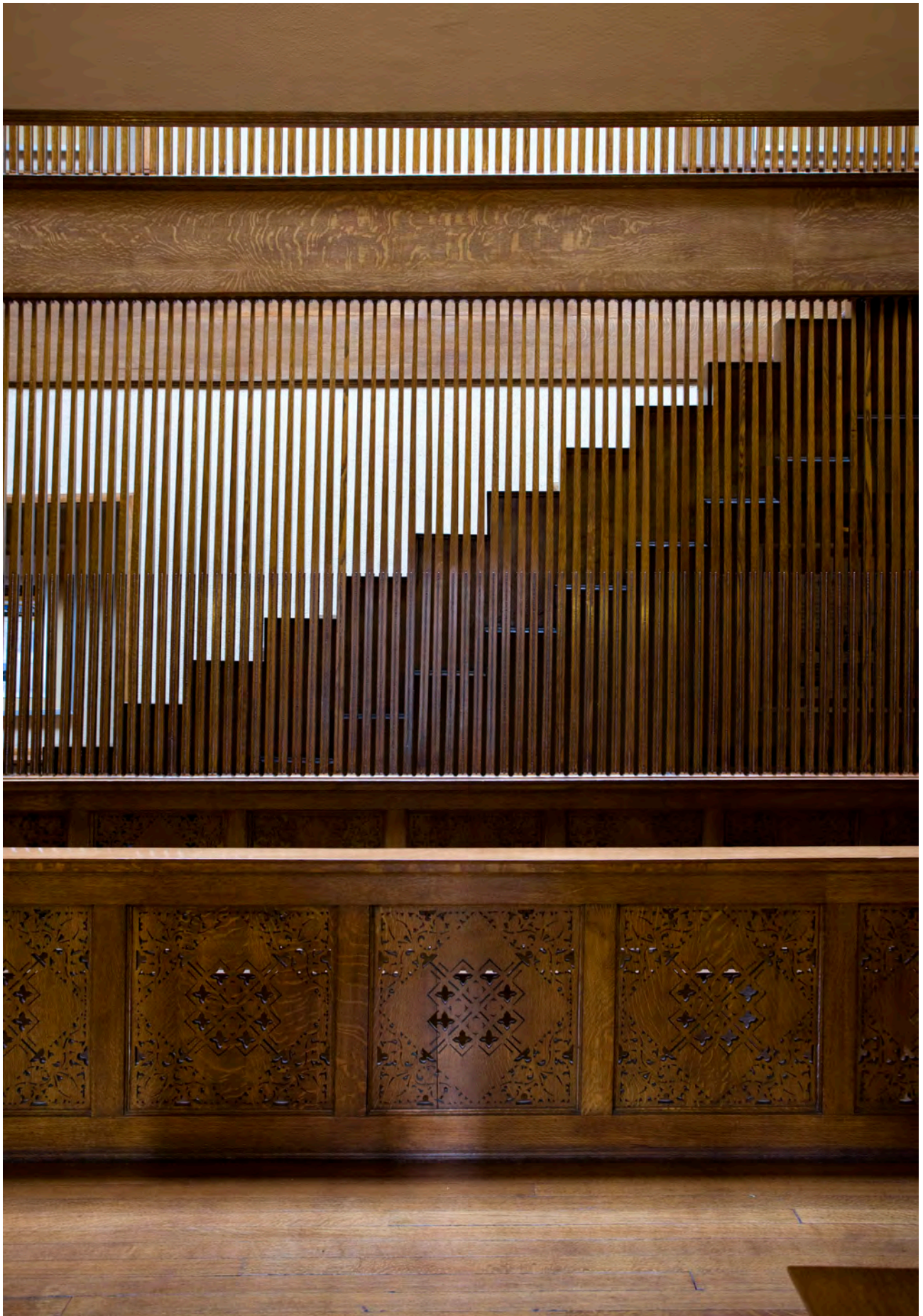


Figure 40 - Second floor stair hall looking east at wood stair screen(Leslie Schwartz, 2016).



Figure 41 - Second floor north office fireplace (Leslie Schwartz, 2016).



Figure 42 - Second floor south office looking southeast (Leslie Schwartz, 2016).



Figure 43 - Second floor south office fireplace (Leslie Schwartz, 2016).



Figure 44 - Second floor bathroom (Leslie Schwartz, 2016).



Figure 45 - Third floor hall looking north (Leslie Schwartz, 2016).



Figure 46 - Looking down to the first floor hall from the third floor (Leslie Schwartz, 2016).



Figure 47 - Third floor south office looking southwest (Leslie Schwartz, 2016).



Figure 48 - Fireplace in third floor north office (Leslie Schwartz, 2016).



Figure 49 - Window in third floor storage room (Leslie Schwartz, 2016).



Figure 50 - Third floor landing in the servant stair (Leslie Schwartz, 2016).

Charnley-Persky House

Chicago, Illinois



Interior Architectural Finishes: A Review of Previous Findings

October 2016



BUILDING CONSERVATION ASSOCIATES INC.

Charnley-Persky House

Chicago, Illinois

Interior Architectural Finishes: Review of Previous Findings

Prepared For

Harboe Architects, PC
140 S. Dearborn Street
Chicago, IL

Prepared By

Building Conservation Associates, Inc.
242 Cherry Street
Philadelphia, PA 19106

BCA Team

Dorothy Krotzer
Kerry Lenehan

October 2016



BUILDING CONSERVATION ASSOCIATES INC.

CONTENTS

1.0 INTRODUCTION	1
2.0 METHODOLOGY	2
3.0 SUMMARY OF FINDINGS	4
3.1 Main Hallway & Living Room Walls	4
3.2 Entrance Vestibule Walls	16
3.3 Back Service Stair Walls	20
3.4 Second Floor Exterior Balcony Wood Trim & Column.....	24
4.0 CONCLUSIONS & RECOMMENDATIONS FOR FURTHER STUDY	30

APPENDICES

Appendix A: Paint Sample List and Locations

Appendix B: Paint Sample Stratigraphies and Photomicrographs

Appendix C: Robert Furnhoff Report, March 1987. "Investigation of Interior Finishes. The Charnley House, ca. 1891."

I.0 INTRODUCTION

At the request of Harboe Architects, Building Conservation Associates, Inc. (BCA) has prepared a select review and preliminary verification of the previous finishes findings for the Charnley-Persky House. Designed by Louis Sullivan and Frank Lloyd Wright, the Charnley-Persky House is located in the Gold Coast neighborhood of Chicago, Illinois. It is a National Historic Landmark and currently serves as headquarters of the Society of Architectural Historians.

This study is part of a larger project being undertaken by Harboe Architects to create a Conservation Master Plan for the Charnley-Persky House. The goals of this study are two-fold. The first is to review a 1987 finishes investigation performed by Robert Furhoff. The second goal is to verify a select portion of Furhoff's original color scheme conclusions through cross-section microscopy and bulk sample laboratory analysis. Samples used in the verification process were taken from two sources: a site visit in August 2016 by BCA and, from the archived collection of bulk sample material Bob Furhoff took from the Charnley-Persky House in 1986-87 for use in his finishes investigation. The Society of Architectural Historians houses this archived collection in the Charnley-Persky House and specific requested samples were sent to the BCA Philadelphia office.

The following report summarizes the findings of this preliminary verification review. It is not intended to be a full interior finishes investigation and analysis. However, it does provide insight into the original decorative treatments through the information presented in the Furhoff study and the selected samples analyzed by BCA. Following the introductory information regarding the study methodology and site, the report discusses the findings of the selective comparative analysis and then makes recommendations for future research and investigation. Appendices include: a list of paint samples examined as part of this study (both those removed *in situ* by BCA and those taken from the archived collection); floor plans annotated with the sample location; paint layer stratigraphy sheets; and, Bob Furhoff's original report. Unless otherwise noted, all photographs are by BCA.

All mounted cross-sections have been labeled and permanently housed and will be archived at BCA's Philadelphia office unless otherwise requested by the client. Bulk sample material from the archived collection will be sent back to the Society of Architectural Historians. All work required for the execution of this study was performed by Kerry Lenehan, BCA Conservator, with assistance from Dorothy Krotzer, Director of BCA's Philadelphia office. Samples were taken on August 18, 2016, archived sample material was sent to BCA in September 2016, and laboratory analysis was performed in September and October 2016.

2.0 METHODOLOGY

Following a review of varied historical documentation sent by Harboe Architects and Bob Furhoff's written report, a one-day site visit was made by BCA. The original goal and intent of this study was to verify Furhoff's conclusions regarding the building's original finish types and color schemes by comparing his findings to a current analysis of new samples. However, upon examination of the present condition of the interior during the site visit, it was concluded that little extant original material remains in the building (or at least is not readily apparent), thereby making a complete verification of Furhoff's findings in a short amount of time difficult.

The house underwent a massive renovation in 1987 by Skidmore, Owings & Merrill after Furhoff completed his investigation. Based on the construction drawings alone, it can be assumed that a significant amount of original plaster has been skim coated over, patched, and/or completely replastered on new lath. While the drawings show what was supposed to have happened, it is impossible to know which portions of the work were indeed carried out and in what capacity without a full documentation of where historic and non-historic fabric exist. See *4.0 Conclusions & Recommendations for Further Study* portion of this report for further discussion.

Using the Furhoff report as a guide, twelve samples were taken during the BCA site visit from areas that were believed to potentially contain original finishes. Most of these samples were taken from less significant areas of the house such as bedroom closets and the service stair hall, for example. See Appendix A for Sample List and Locations. Due to significant replastering and repairs over time, in conjunction with a lack of documentation or previous research, a short site visit was not enough time to locate and determine which areas — walls and ceilings in particular — have truly retained their original finishes.

After returning to the office, the existence of the Furhoff archived collection of bulk sample material was brought to BCA's attention. An inventory list of the approximately 130 samples that Furhoff took with location notes transcribed from his sample envelopes was sent, and from that, a request for specific samples for further laboratory analysis was made by BCA. Samples from the archived collection were chosen for further laboratory and comparative analysis based on any or a combination of the following criteria and whether they:

1. corresponded with the samples BCA had taken *in situ*
2. represented a significant decorative treatment
3. represented a principle space or key room

Once the requested bulk samples arrived and were examined, a handful were identified and selected for cross-section analysis. Four groupings of samples were examined: Hallway & Living Room Walls, Entrance Vestibule Walls, Back Service Stair Walls and Second Floor Exterior Balcony Column & Trim. The decision was made to focus on the plaster wall surfaces in the principle spaces in order to understand their original texture and color as best as possible as the plaster wall surfaces are a significant feature of the interior. In addition, it was determined that two other elements or areas could be examined by comparing cross-sections and color matches from both the Furhoff samples and the BCA samples. These include the back service stair hall walls and exterior wood elements from the second floor balcony. Samples with the prefix CPH- were taken by BCA and samples labeled CP- are from the archived collection.

Seventeen samples in total (7 from the BCA 2016 on-site visit and 12 from the Furhoff 1987 archived collection) were selected and then mounted in a commercial polyester/methacrylate resin polymerized with a methyl ethyl ketone peroxide catalyst (Bioplast®). Embedded samples

were sectioned on a Leco® VC-50 micro-saw for microscopic examination. The sectioned samples were dry-polished using a series of fine Micromesh® polishing clothes ranging from 6,000 to 12,000 grit. Sectioned samples were observed under a Nikon 50i compound microscope in both visible light filtered through a daylight correction filter and ultraviolet light. The ultraviolet light was generated by a mercury illumination system filtered through a violet filter cube (EF4 V-2A Ex400/40 Dm430 Bar 450).

Photomicrographs of representative samples were taken using a 5 mega pixel Nikon DigiSight color digital camera system and are included in this report to illustrate specific observations. All photomicrographs are included in Appendix B.

Stratigraphies of the cross-sections were then deciphered, compared, and significant layers were identified. When necessary, raw, uncut bulk samples were manipulated in order to expose the identified significant paint layers for color matching and Furhoff report verification purposes. As necessary, the exposed layers were visually matched to the standardized Munsell color system, as well as the commercial Benjamin Moore color system.

Study Notes

1. It is important to note that the precise locations from where Furhoff took his samples are not documented. The only information regarding his sample locations is in the generalized notes and descriptions that he wrote on the sample envelopes. There are no photographs or annotated floor plans detailing sample locations. This study assumes that the information Furhoff wrote on his envelopes, and subsequently, the transcribed information included on the annotated list of bulk fragment archived samples is accurate and that the physical samples represent the spaces sampled.

2. Secondly, keep in mind that cross-sections under the microscope often do not show the true color of the target paint layer; exposures in natural light must always be used for color matching. Furthermore, the target layer may not appear the same color from sample to sample in the photomicrographs due to lighting and the digital photomicroscopy process.

3.0 SUMMARY OF FINDINGS

The following summary of findings is organized by location: Hallway & Living Room Walls; Entrance Vestibule Walls; Back Service Stair Walls; and, Second Floor Exterior Balcony Wood Trim & Column. Each grouping of past and present samples is able to tell a slightly different “story” through their comparative analysis. The information gleaned through laboratory analysis of the cross-sections and bulk samples was, in some cases, able to verify Furhoff’s findings and, in other cases, raised questions regarding Furhoff’s findings and prompted the need for further study.

The comparative analysis of each grouping of samples by location is organized in the same manner in the sub-sections below. First, a relevant description of Furhoff’s report and findings is summarized. Second, BCA’s analyses and findings are explained. Last, a summary and conclusions about the sample groupings is given.

3.1 Main Hallway & Living Room Walls

The sand float plaster texture and color in the main interior spaces of the living room, dining room, and first-, second- and third-floor main hallways is the most significant decorative treatment in the Charnley-Persky House. This treatment has been documented by BCA in other Frank Lloyd Wright buildings including Unity Temple and the Robie House. It is therefore of utmost importance to fully understand how this finish was originally interpreted.

Summary of Robert Furhoff Findings

Furhoff reports that a white sand float plaster finish was used on all of the walls and ceilings in the house, except for the second floor bedrooms. At the time of his report, “most plaster surfaces” were original to the house and not a result of the major 1927 alteration. This is no longer the case after the 1987 renovation, and so care should be taken to document where any original plaster surfaces still remain.

He goes on to summarize that the early finishes were “calcimine...applied by top coating the previous calcimine layer.” In architectural applications, calcimines can be considered to be glue distempers and the two terms have widely been used interchangeably when describing traditional architectural paints. Glue distempers are paints bound by animal glue and are the most common traditional American house paint that dry solely by evaporation of the solvent (water). Glue distempers were inexpensive, could be applied quickly and could hide substrates well in one coat. Many color pigments that do not handle well or produce bright enough tints in oil-based systems do well in distempers, as the animal glue distemper binder is not subject to the yellowing that can occur in oil paints over time.¹

Glue distempers have the advantage of easy reversibility because they remain soluble in hot water. Traditionally, a previous “calcimine” layer would have been removed before a new one was applied in order to achieve the best quality finish. Fortunately for Furhoff, this was not practiced at the Charnley-Persky house, which, in turn, preserved evidence of the original color in the areas he investigated and sampled prior to the 1987 renovation.

¹ Morgan W. Phillips, “A Survey of Paint Technology. The Composition and Properties of Paints.” In *Paint in America: The Colors of Historic Buildings*, Roger W. Moss, ed. Washington, DC: National Trust for Historic Preservation, 1994, 240-1.

With respect to the living room, dining room, and first-, second-, and third-floor main hallway and stairs, Furhoff concluded, “The full wall surface, wall frieze area and ceilings are all treated the same. The plaster has no sealer or prime coat. Treatment is calcimine.” The color is described as a “light brownish pink” and he matched it to Munsell 7.5YR 7.5/3 and the now-discontinued commercial Benjamin Moore CB-87.

Typically, the identification of paint binder is done through a combination of fluorescence microscopy, instrumental analysis such as FTIR or GC-MS, and on occasion, fluorochrome staining. Furhoff did not perform this level of analysis in his 1987 study, so it is difficult to know what the determination that the original paints are distempers is based on. Because this type of more comprehensive analysis has not been performed on the original finishes at the Charnley-Persky House, it should be made clear that the type of paint used originally is not known. Further analysis using the technologies listed above would be required in order to confirm the type of original paint used. See *4.0 Conclusions & Recommendations for Further Study* section.

Summary of BCA Findings

Because it was determined during the site visit that identifying and sampling from areas that retained original fabric was proving more difficult than anticipated, only one first floor main hallway sample was taken in the hopes it could be used to compare or verify Furhoff’s findings (sample CPH-5). Upon receipt of the archived bulk sample collection inventory list, the decision was made to focus on the walls of the main interior spaces; other bulk samples were requested for comparative cross-section analysis including those representing the first floor entrance vestibule, hallway, alcoves, living room, as well as second and third floor main hallways. It was decided to exclude examination of the dining room in this study. Too many renovations had been done in that room at various points that it would have proven difficult to fully understand from where, exactly, the archived samples had been taken and if they truly had representative original material.

Sample CPH-5, taken by BCA during the site visit, is not representative of the original wall finish. The photomicrograph of the cross-section shows a plaster substrate that looks nothing like that seen in the cross-sections of the archived samples that contain original material; the plaster of the new sample is smoother and without distinct sand grains (Figures 1 & 2). Furthermore, there are very few paint campaigns or layer sequences, so it can be assumed that the area from where CPH-5 was taken is an area of replaced plaster.

Using only the transcribed location notes from the archived bulk sample collection inventory list, nine corresponding wall samples were selected to compare to CPH-5 and to each other. These samples were embedded for cross-section analysis and exposures were made to identify the earliest paint layers.

Due to lack of knowledge regarding existing conditions and location of original plaster, the ceilings were not sampled during the BCA site visit, so therefore Furhoff’s conclusion that the ceilings were treated in the same manner as the walls could not be verified in this study.

Living Room

Sample CP-B-4-d, from the living room, was selected for its accompanying note on the inventory list stating it is a good example of the “first calcimine layer” and was taken from “behind molded trim”. The cross-section photomicrograph of CP-B-4-d (Figures 3 & 4) confirms the presence of

an original light brownish pink finish that is translucent in appearance and is likely the layer identified as a calcimine by Furhoff. This bulk sample is a good example of the original color, but not the original texture because it was small and taken from a smooth corner behind a molding where there was a thicker paint accumulation but the sand float plaster texture was not prominent.

According to the Furhoff sample envelope notes, sample CP-B-4h was taken from the south living room wall at the dado level. The original light brownish pink distemper layer is seen in cross-section and its characteristics are identical to the other representative wall cross-sections, discussed below (Figure 5).

A color match of the living room bulk samples confirms Furhoff's match to a light brownish pink color. This sample is matched to Munsell 7.5YR 8/3 and a commercial match to Benjamin Moore HC-54 Jumel Peachtone (Figure 6).



Figure 1. Sample CPH-5 (first floor hallway, 100x, visible light). This sample does not contain original material and was taken from an area where the original plaster has been replaced. The composition of the plaster substrate appears different than the other samples seen in cross-section that were taken from the archived collection and contains only two layers of modern paint.

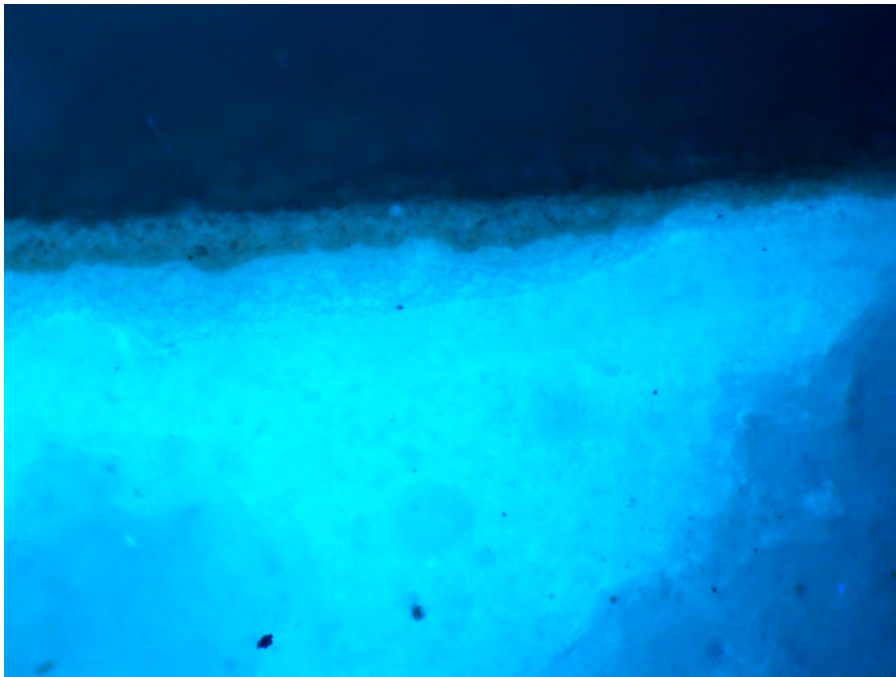


Figure 2. Sample CPH-5 (first floor hallway, 100x, ultraviolet light).

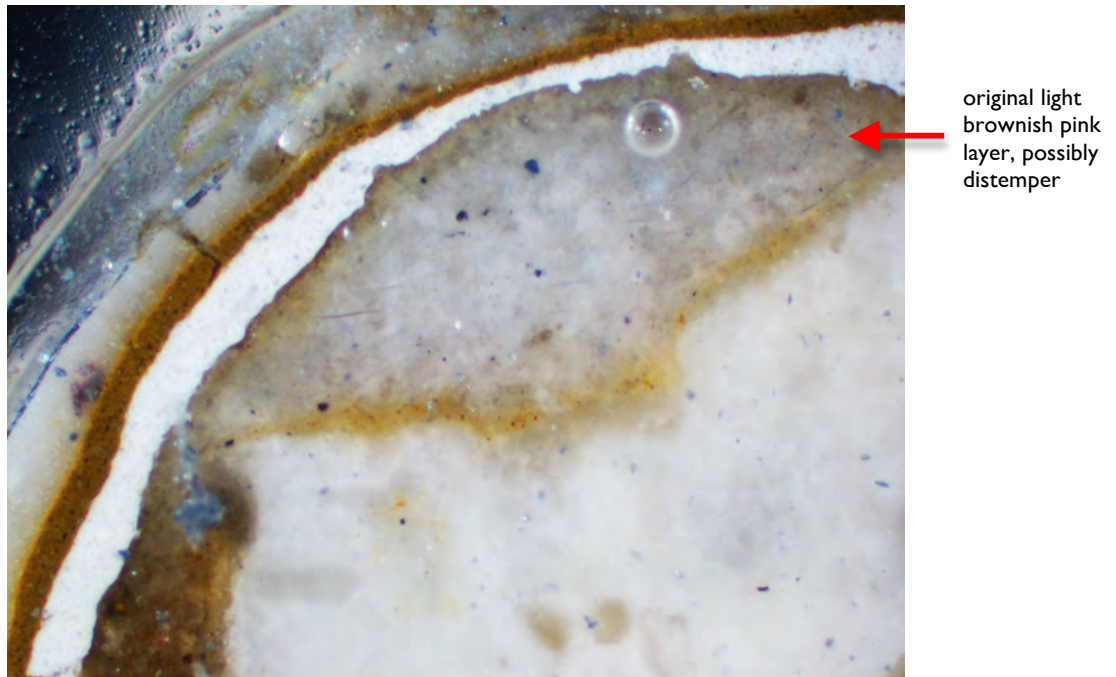


Figure 3. Sample CP-B-4-d (living room, 50x, visible light). In cross-section the original possible distemper color does not look like the light brownish pink described by Furhoff and verified by BCA. Distempers are also prone to soiling over time and appear soft or pillowy in appearance in cross-section, as opposed to oil paints, which have more clearly delineated boundaries.

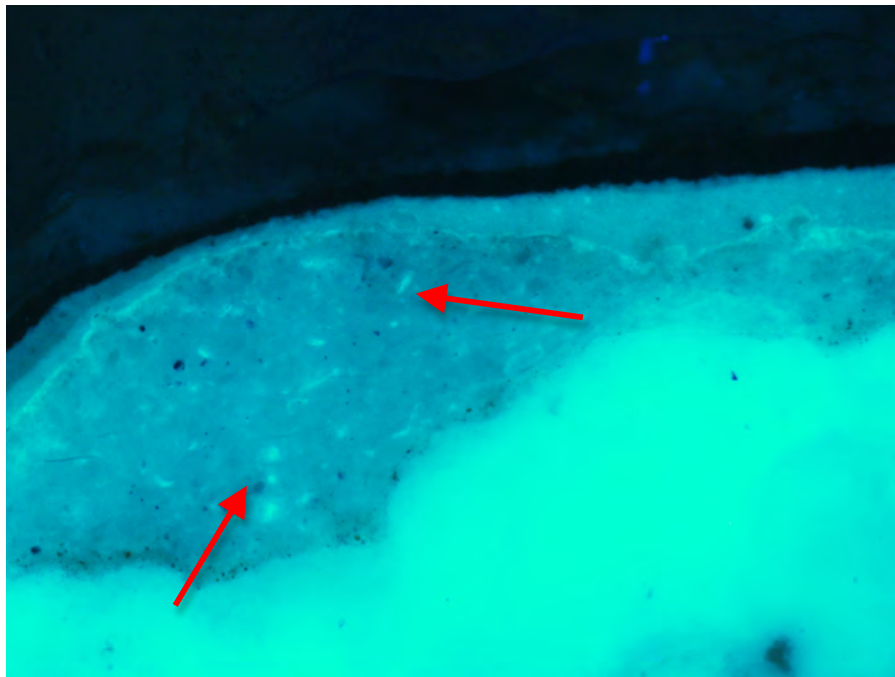


Figure 4. Sample CP-B-4-d (living room, 50x, ultraviolet light). The arrows point to small flecks in the original layer auto-fluoresce under UV light, which may be signs of the proteineaceous glue binder in the paint system.

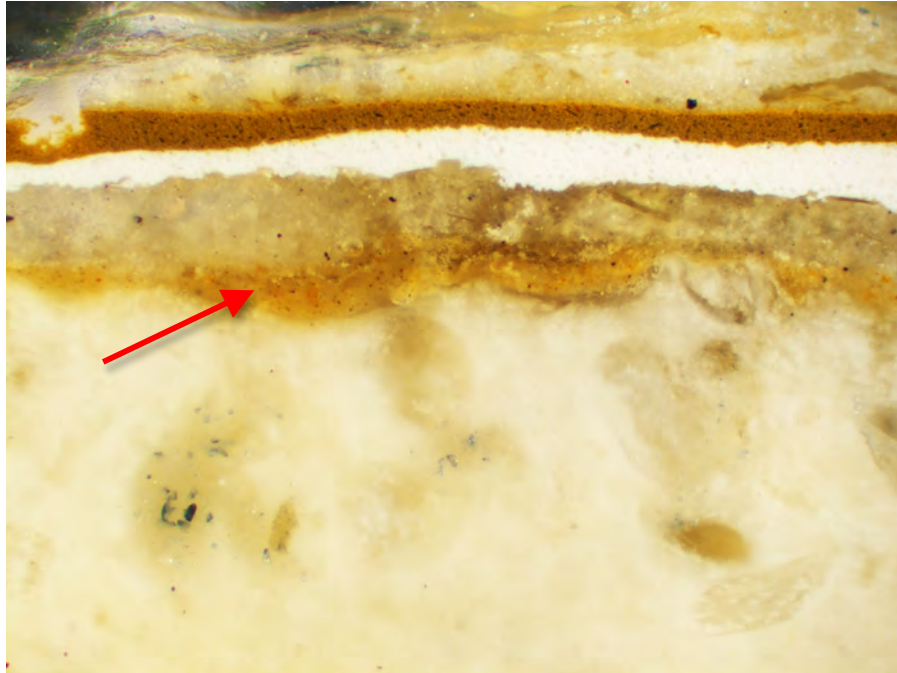


Figure 5. Sample CP-B-4h, south living room wall, dado level (50x, visible light). The arrow is pointing to the original light brownish pink layer, suspected to be a calcimine or distemper.

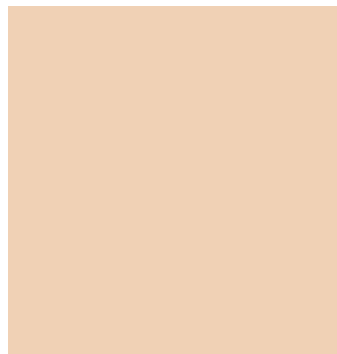


Figure 6. Benjamin Moore HC-54 Jumel Peachtone, an approximate color match of the original distemper color used on the living room and main first-, second- and third-floor hallway walls. (Please use the actual color chip to see the color, this is a digital reproduction)

1st Floor Hallway & Alcoves

Samples CP-B-2-b (1st floor hallway, inset arch over cabinet), CP-B-2-c (1st floor hallway), and CP-B-3-c (1st floor alcove wall) from the archived bulk sample collection were embedded and examined in cross-section. These samples, again, show the same original light brownish pink translucent layer applied on a sand float plaster finish with distinct and protruding sand grains (Figures 7, 8, 9). A soft, chalky dark red layer is consistently observed as the second decorative campaign. Because the distempers are soft and chalky, when subjected to exposures, remnants of the later layers can be easily left behind or connected to the targeted original layer. In the case of these samples, the dark red was difficult to completely remove, thereby making the exposed appearance look more pink than the actual color would have been, as it is on sample CP-B-4-d.

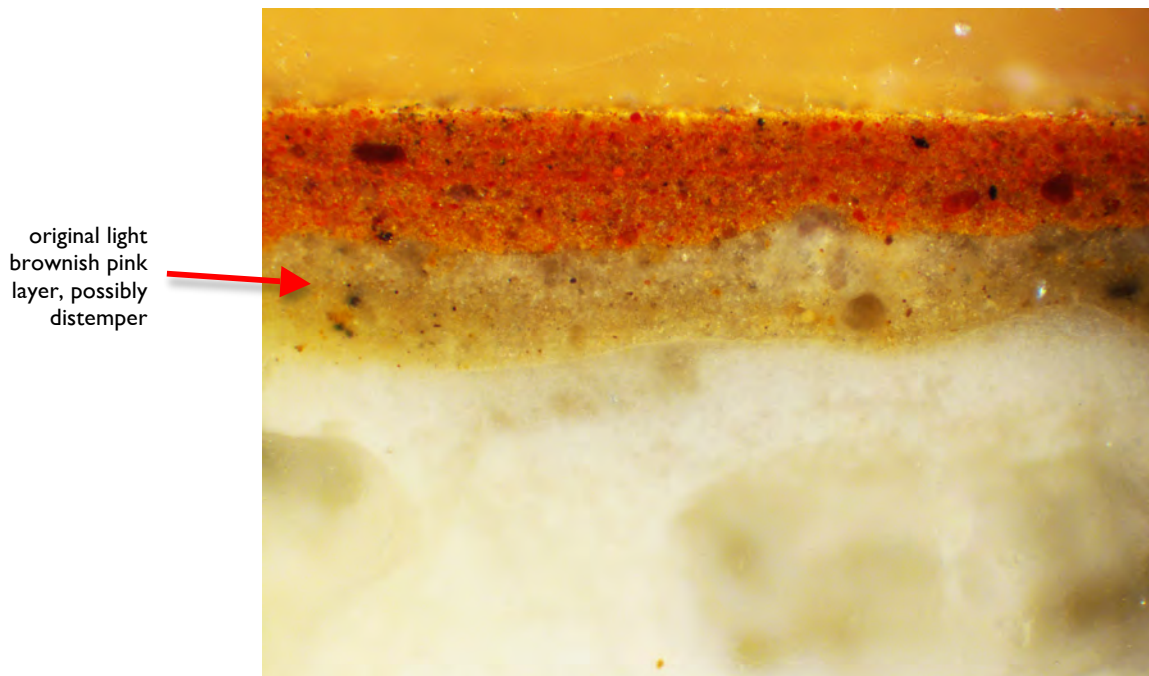


Figure 7. Sample CP-B-2-b, 1st floor hallway arch over cabinet (100x, visible light). The original translucent layer was painted directly on the finish plaster.

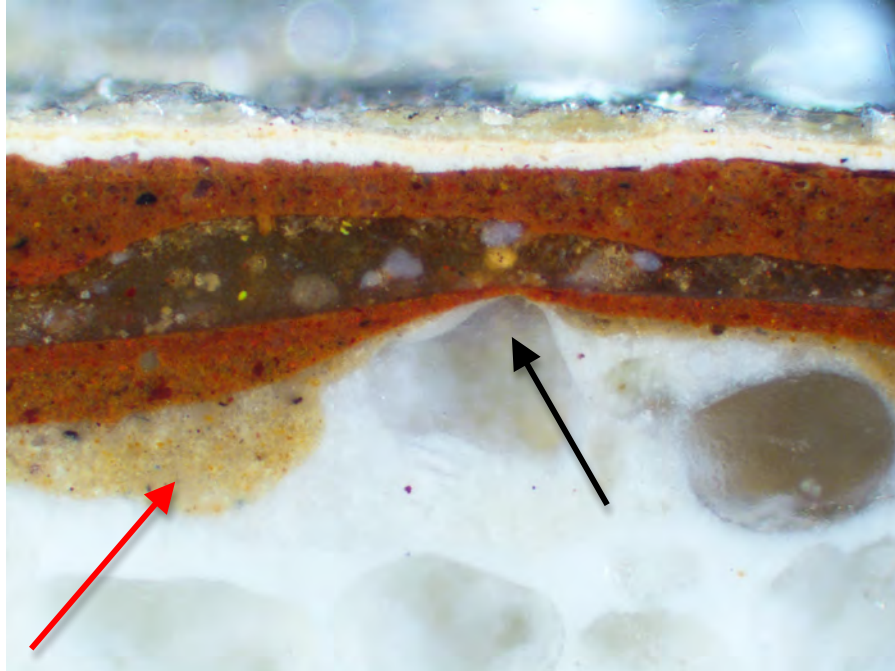


Figure 8. Sample CP-B-2-c, 1st floor hallway (50x, visible light). This is a good example of the uneven sand float plaster finish with protruding sand grains in cross-section. Similar to the Entrance Vestibule samples discussed in the next section, there is more paint accumulation in the “valleys” between the sand grains (where the red arrow is pointing) than where the grains protrude (black arrow). In those areas where the grains protrude, there is little to zero finish.

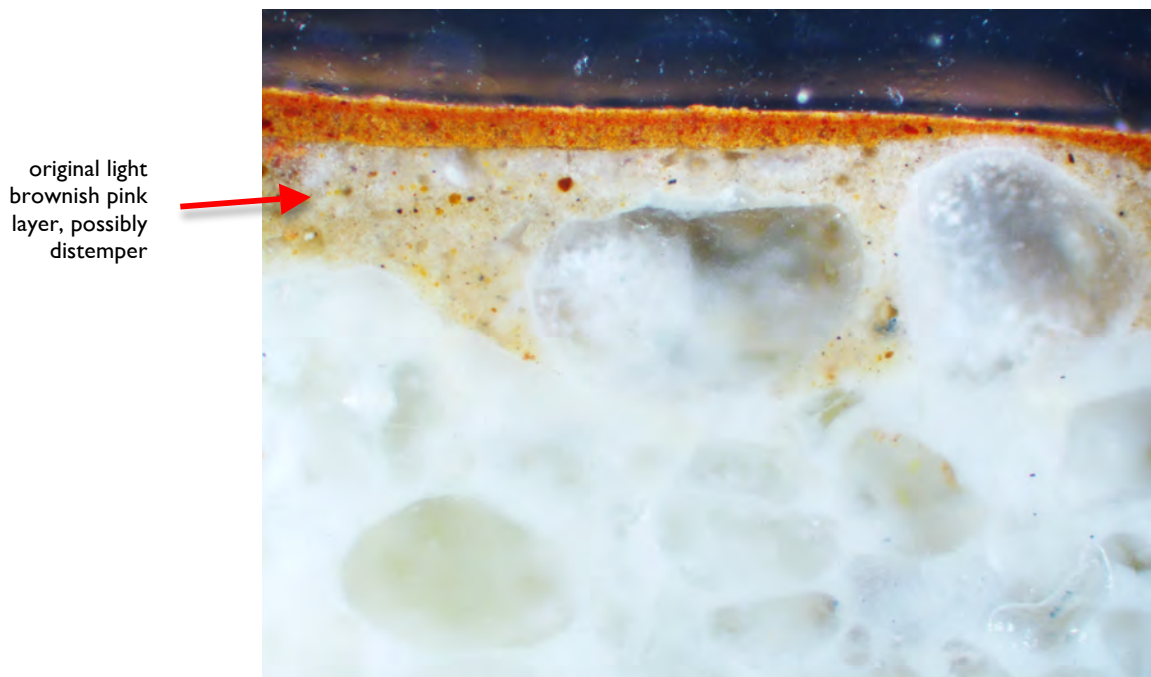


Figure 9. Sample CP-B-3-c, 1st floor alcove wall (50x, visible light). Again, the original light brownish pink layer surrounds the individual protruding grains of sand.

2nd Floor Hallway

One archived bulk collection sample from the second floor hallway wall was embedded in cross-section for comparative purposes (Figure 10). CP-C-1-g was chosen from the inventory because “good sample of cal [sic.] color” was annotated on the list. Furhoff must have taken this from higher up on the wall closer to the ceiling because “above trim/frieze” is also written on the sample envelope. Similar to sample CP-B-4-d that Furhoff took from behind a piece of trim in the living room, this sample has a more smooth plaster texture but is a good representative of the original color. It seems to have been taken from a corner or behind a trim because the sand float plaster finish is not as apparent. The color matches the other samples.

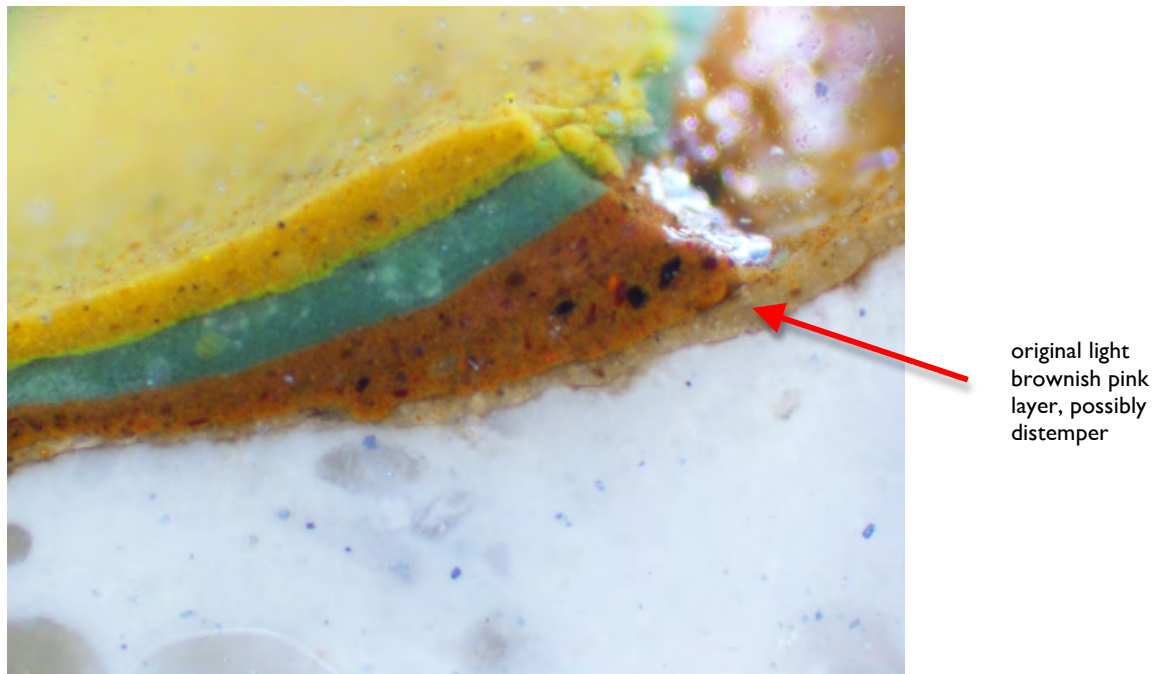
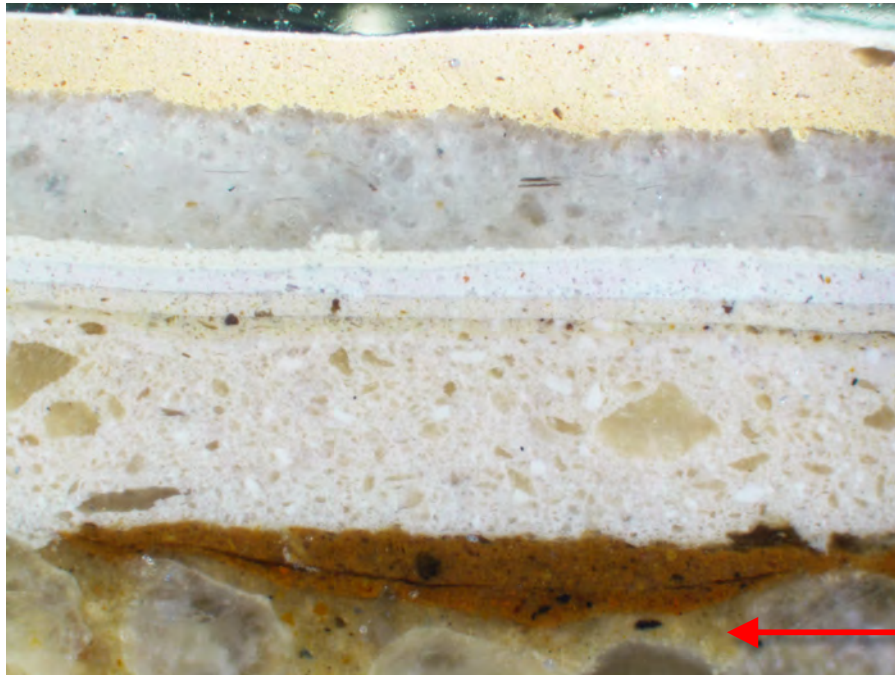


Figure 10. Sample CP-C-1-g, second floor alcove wall “above trim” (50x, visible light). In this portion of the cross-section the texture is smoother and the grains of sand do not protrude as much as seen in other samples. This is most likely because it was behind a trim or from a smoother corner.

3rd Floor Hallway

Samples CP-D-1-g (third floor hallway wall, above frieze trim), CP-D-1-d (third floor hallway wall from behind cornice molding), and CP-D-2-b (third floor hallway alcove wall) again show consistency in their original decorative scheme. The light brownish pink translucent layer is observed in and around the sand grains in the sand float plaster finish (Figures 11, 12, 13).



original light
brownish pink
layer, possibly
distemper

Figure 11. Sample CP-D-1-g, 3rd floor hallway wall above frieze trim (50x, visible light).

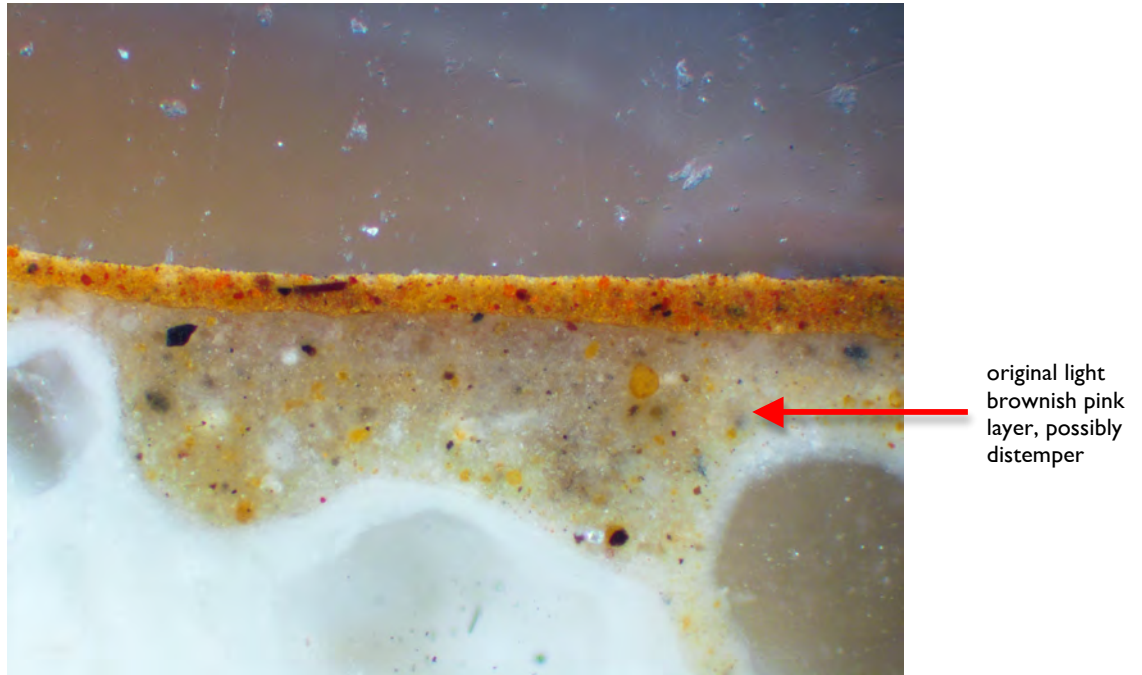


Figure 12. Sample CP-D-1-d, 3rd floor hallway wall (100x, visible light).

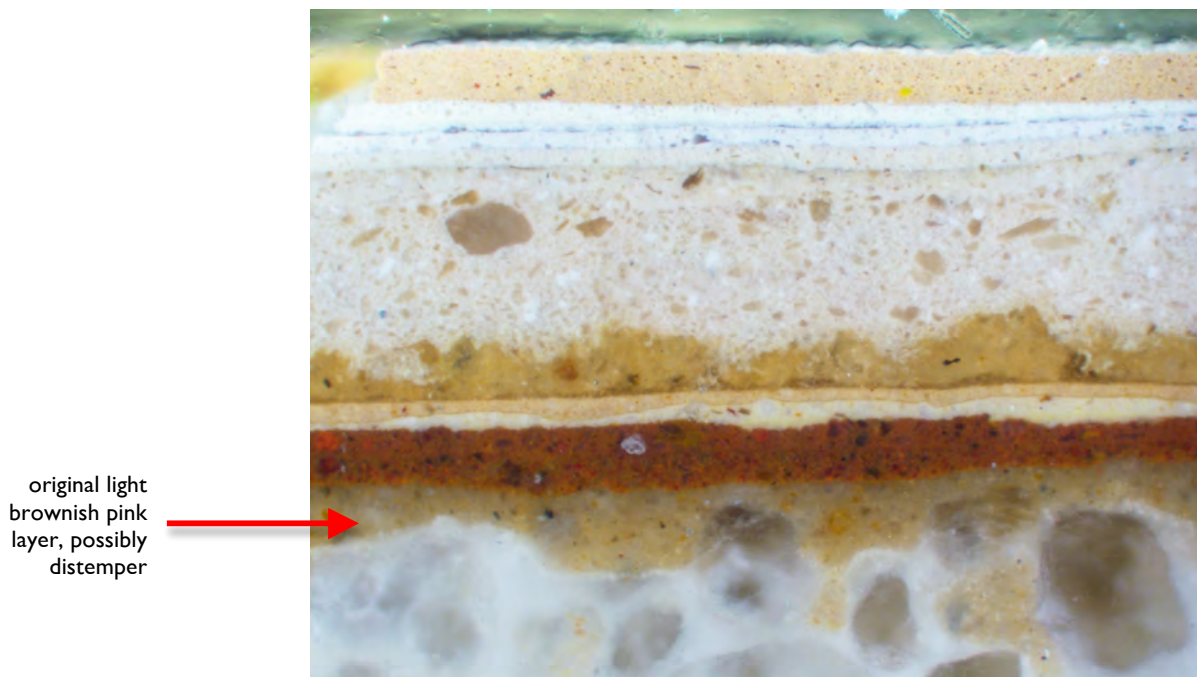


Figure 13. Sample CP-D-2-b, 3rd floor hallway alcove wall (50x, visible light).

Summary

In summary, the original layers of the chosen samples from the archived collection exhibit similar characteristics in both cross-section and in bulk sample exposure. The light brownish pink colored-paint that Furhoff found can be verified in all of these samples. We must take into account that we do not know the exact locations of where these samples were taken and have to assume that the general notes Furhoff wrote on his sample envelopes are accurate and are what the analysis is based upon.

A more specific analysis of the sand float plaster textures and compositions should be conducted. If the wall and ceiling textures were in any way different depending upon location it would most likely have been an intentional design decision on the part of Frank Lloyd Wright. It was beyond the scope of this study to examine all of the relevant bulk samples in the archived collections and no ceiling samples were examined. However, except the smoother-surfaced plaster samples that came from behind a trim element, the samples that were selected in this preliminary study seem to exhibit similar textures (Figure 14).



Figure 14. Examples of the original sand float plaster texture. The sand grains are much finer than that of the plaster currently on the walls today. On the left, sample CP-B-3-c from the first floor alcove wall. On the right, sample CP-B-4h from the living room. The left portion of CP-B-4h in the red box was exposed to reveal the original light brownish pink color under a later layer of a cream-colored off-white paint that was not seen in the other analyzed cross-sections.

3.2 Entrance Vestibule Walls

The entrance vestibule serves as the main entrance into the house from Astor Street. Woodwork is the focus in this space, with wood panels covering more than three quarters of the height on each plaster wall surface. Two elaborately carved doors, one with glass sidelite surrounds, take the stage as the decorative focal pieces in the space. While the vestibule and its impressive craftsmanship is the first impression one has upon entering the Charnley-Persky House, it also functions as a buffer between the outside elements and the main interior space. It was designed to not only provide a formidable first impression, but to also wear well and take the brunt of temperature shifts between interior and exterior environment as well as dirt and pollution accumulation from the street outside. The original plaster wall finish in the entrance vestibule appears to also serve a dual note of utilitarian functionality and decoration.

Summary of Robert Furhoff Findings

Furhoff reports that the original finish of the walls and ceiling in the entrance vestibule was “a transparent resin finish.” He goes on to summarize, “Plaster has no primer but is treated with a thick coating of shellac or spirit varnish of a good amber color. Coating is not absorbed by the plaster and has a high gloss finish. This surface treatment contained considerable soiling, indicating its exposure for a period of time.” Again, no instrumental analysis was performed, so we do not know if the resinous layer is shellac, varnish, or something else.

Furhoff color matched the resinous layer of this original decorative scheme to a dark orange yellow, Munsell 10YR 6/8. However, he is quick to note: “A transparent color can not [sic.] be represented by an opaque paint film. The color appearance of the finished wall varies due to the coating thickness over the irregular sand float texture. The color sample submitted would approximate the darkest concentration of the coating; but the general surface would appear lighter.”

A cross-section analysis of the corresponding entrance vestibule wall sample from the archived sample collection was not performed. However, visual analysis of the archived sample in its bulk form both under the microscope and with the eye confirms Furhoff’s report conclusions (Figure 15). Furhoff had exposed the original layer by removing the later paint layers. The texture of the plaster can clearly be seen as well the thin, uneven application of the resinous layer.

Summary of BCA Findings

BCA analysis confirms Furhoff’s findings. A layer of a clear honey-colored resin was applied directly to the sand coat finish plaster. Figure 16 is an exposure of sample CPH-6, showing the later paint layers removed and earliest finish layer revealed. When visually compared to Furhoff’s exposed sample, the color and texture of the sand float plaster layer with transparent resin finish is nearly identical. Overall, the resinous application was thin, but photomicrographs of sample CPH-6 in cross-section (Figures 17 & 18) show greater accumulation of the resin in the valleys between the sand grains. There is barely any resin on the tops of the protruding sand grains. Analysis of the cross-section under ultraviolet light did not reveal any significant auto-fluorescing of the original resinous layer (Figure 18); further research and instrumental analysis would therefore need to be performed in order to identify the component material of the resinous layer.

As Furhoff noted, this is a difficult finish to color match because it is a thin, transparent coating. Attention should be paid to the overall effect of application this coating has on the sand float finish plaster. While quite unusual, this finish serves both utilitarian and decorative purposes. Perhaps the same varnish/resin that was used to coat the wood paneling and moldings was simply extended onto the plaster wall and ceiling above and the plaster walls and ceiling were essentially treated like wood. It therefore would have created a unity of color and gloss within the vestibule while also providing visual interest as a result of the play of light over the irregularity of the resin over and in between the sand grains. Because the resin dried hard and clear, it also would have given the plaster a layer of protection that a different, more common plaster finish layer may have not been able to provide in such a space. The use of calcimine or a distemper in this space, for example, would have soiled and deteriorated much more quickly from intermittent exposure to the outdoor elements. Because this resinous layer was clear, it may not have been intended to be seen altogether, and could perhaps have been intended as simply a prep layer for an “un-conditioned” semi-exterior space.

Ceiling samples were not taken during the BCA site visit, so therefore Furhoff’s conclusion that the ceilings were treated in the same manner as the walls could not be verified in this study.



Figures 15 and 16. Figure 15, left, sample CP-B-1-b from the archived bulk sample collection. The sample was sent to BCA in this form in the sample envelope; therefore it can be assumed that Bob Furhoff most likely exposed the original surface. Figure 16, right, sample CPH-6, taken by BCA during the site visit with subsequent exposure performed in the laboratory. The texture of the sand float plaster is clearly seen, with small protruding sand grains creating a rough, uneven surface finish. As expected, the translucent resin shows thicker accumulations in the “valleys” between neighboring sand grains and was spread thinner across the tops of the grains. This finish is difficult to color match overall because a translucent finish cannot be represented by an opaque paint film.

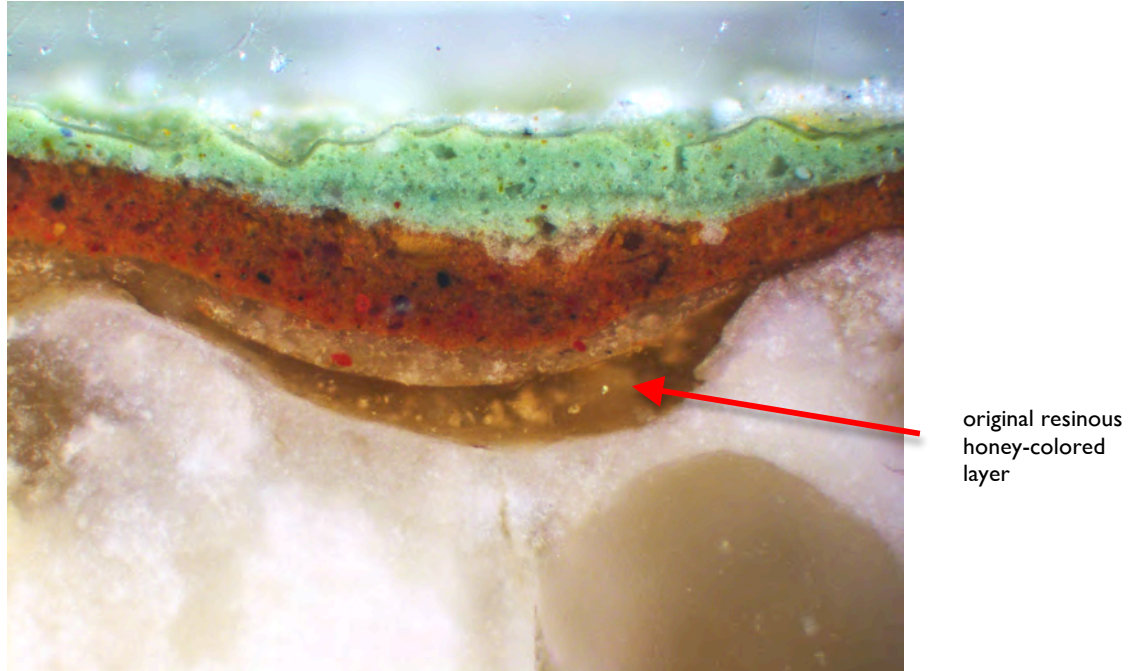


Figure 17. Sample CPH-6 (100x, visible light). The original resinous honey-colored layer is noted, applied directly to the sand float plaster finish. Overall application was thin; the resin gathered in the valleys between sand grains and barely covered the top-most protruding parts of the sand grains.

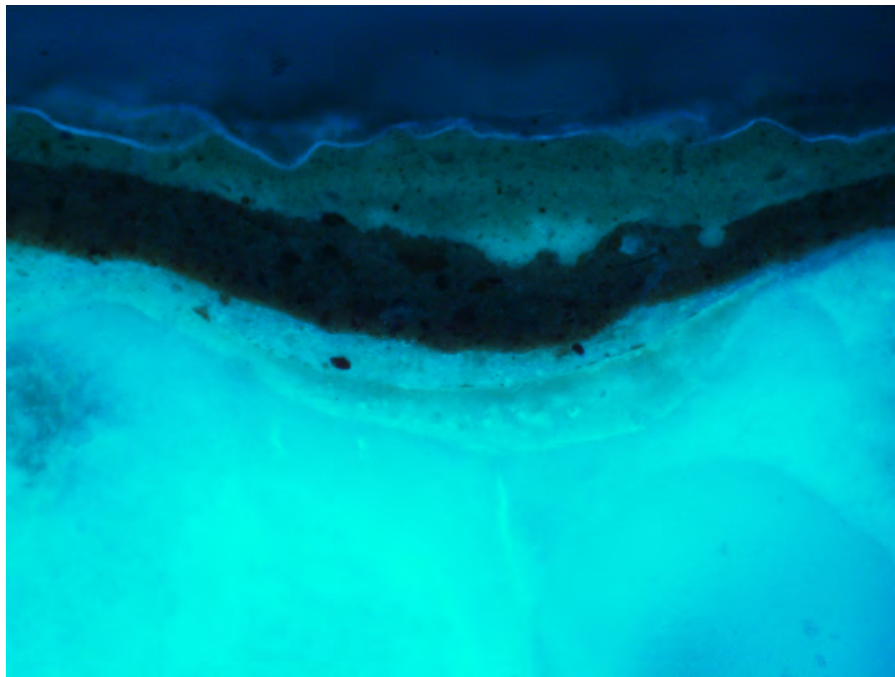


Figure 18. Sample CPH-6 (100x, ultraviolet light). UV light does not reveal any significant auto-fluorescing of the original resinous layer. Further instrumental analysis would need to be performed in order to fully understand the layer's chemical makeup and probable material.

3.3 Back Service Stair Walls

Summary of Robert Furhoff Findings

Furhoff concluded that the walls and ceilings of the basement and service stairs on the first, second and third floors were treated the same. They were painted a “satin gloss oil base paint in light yellowish brown”. He matched the color to Munsell 10YR 6.75/5 and the commercial color Devoe 2D56C Stitchery. Unfortunately Stitchery is a discontinued color from the Devoe paint line and a sample for comparative matching purposes could not be procured. These walls were a flat, smooth plaster and not textured like the main interior spaces noted in Sections 3.1 and 3.2, above.

Summary of BCA Findings

Sample CPH-3 from the first floor service stair wall nearest to the pantry was compared to a chosen sample from the bulk sample archived collection. The only back service stair hall wall sample listed on the archived collection list is one taken from the basement: CP-E-2. So, the comparison of cross-sections and bulk samples is between a sample taken from the first floor service stair wall and the basement service stair wall.

Cross-section analysis and bulk sample exposures conclude that Bob Furhoff's color identification was similar, but slightly more yellow, than BCA's color match. The cross-sections of samples CPH-3 (Figure 20) and CP-E-2 (Figure 21) show many similarities in their paint layer sequencing. The original color is the first layer, a light yellowish brown oil-based paint. A thin translucent brown layer is visible immediately below this original color and on top of the plaster substrate. In ultraviolet light this layer auto-fluoresces and is even more prominent (Figures 22 and 23). Exposures of both bulk samples reveal that the layer was indeed a translucent preparation or size layer and not a finish layer. One possibility is that the thin layer was glue for wallpaper and that these spaces could have been papered. Other, more prominent rooms with smooth plaster used paper and it was a typical finish treatment of the times.

Because the Devoe Stitchery 2D56C commercial color Furhoff matched his samples to has been discontinued, a color chip could not be obtained that would allow for color match comparison. The Munsell values he gave are not standard Munsell color chip colors either, but rather an approximation between two standard Munsell colors. Therefore, a new color match was performed in order to get a sense of the original color using the commercial Benjamin Moore color system and the closest standard Munsell values.

The samples were matched to Munsell 10YR 6/6 and Benjamin Moore HC-41 Richmond Gold (Figure 19). Based on the Munsell values Furhoff gave, the approximate color he specified is lighter and more yellow than the color BCA found, which is slightly darker and browner.

As predicted, the plaster surfaces of the service stairs were not treated in the same manner as the main hallways, living spaces and entry vestibule. Whereas those spaces exhibit the more textured and visually interesting sand float plaster finish, the back service stair walls were finished with a smooth plaster finish coat and oil-based paint. This would be expected in a non-public and utilitarian area that could have been easily cleaned.

Because BCA sample CPH-3 matches archived sample CP-E-2 in both cross-section and bulk, it can be concluded that the sampled plaster area on the first floor service hall has been neither repaired nor replaced and that it is an area of existing original fabric.

Ceiling samples were not taken during the BCA site visit, so therefore Furhoff's conclusion that the basement ceilings were painted the same color as the walls could not be verified.

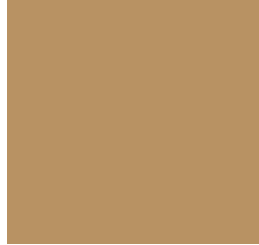


Figure 19. Benjamin Moore HC-41 Richmond Gold, an approximate color match of the original color of the back service stair hall walls. (Please use the actual color chip to see the color, this is a digital reproduction)

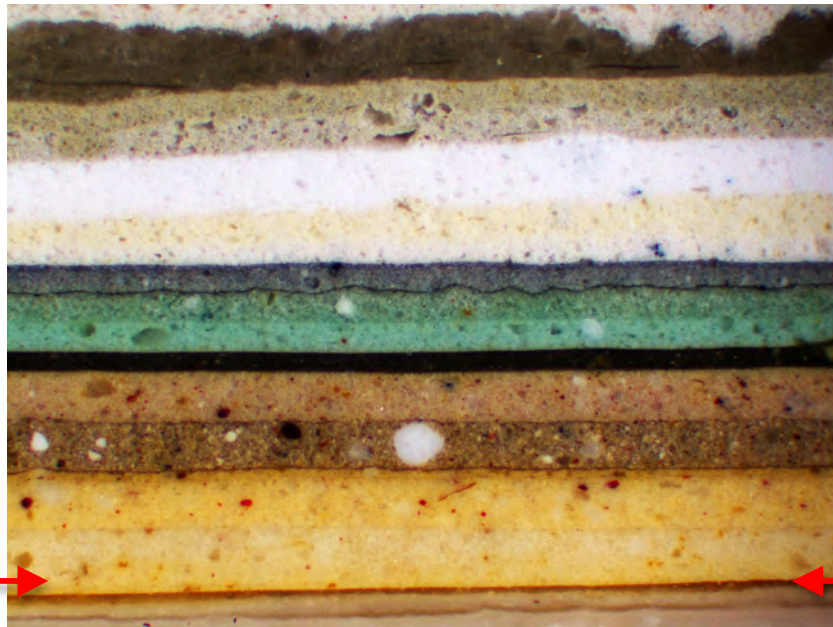


Figure 20. Sample CPH-3 (100x, visible light). The original light yellowish brown color in the first floor service stair hall is noted, as well as an original thin translucent preparation size layer. A color similar to the original paint color scheme was repeated three more times in the building's early history.

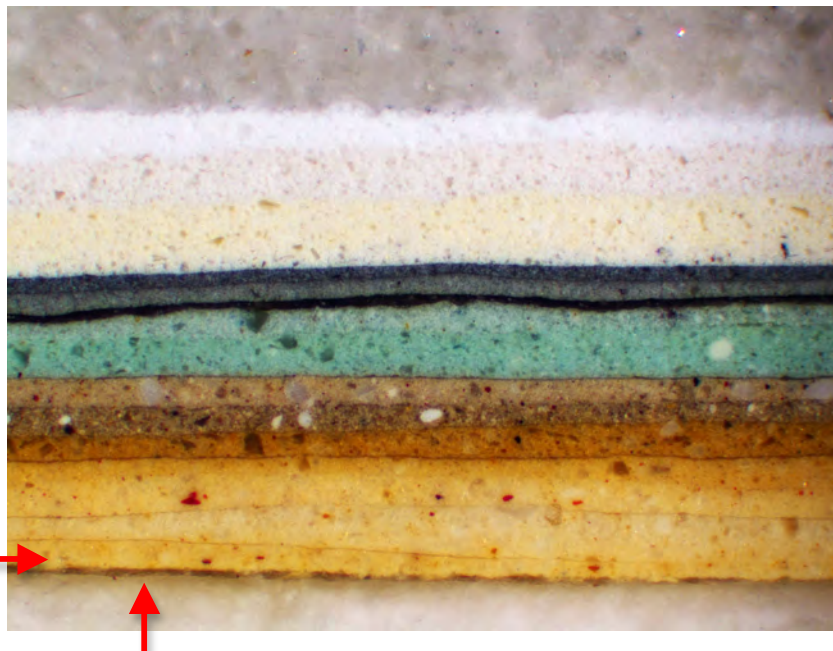


Figure 21. Sample CP-E-2 (100x, visible light). The basement service stair wall was originally treated the same as the walls on the first floor, above. While not as uniform as sample CPH-3, a thin translucent brown preparatory size layer can be seen under the paint layer and above the plaster.

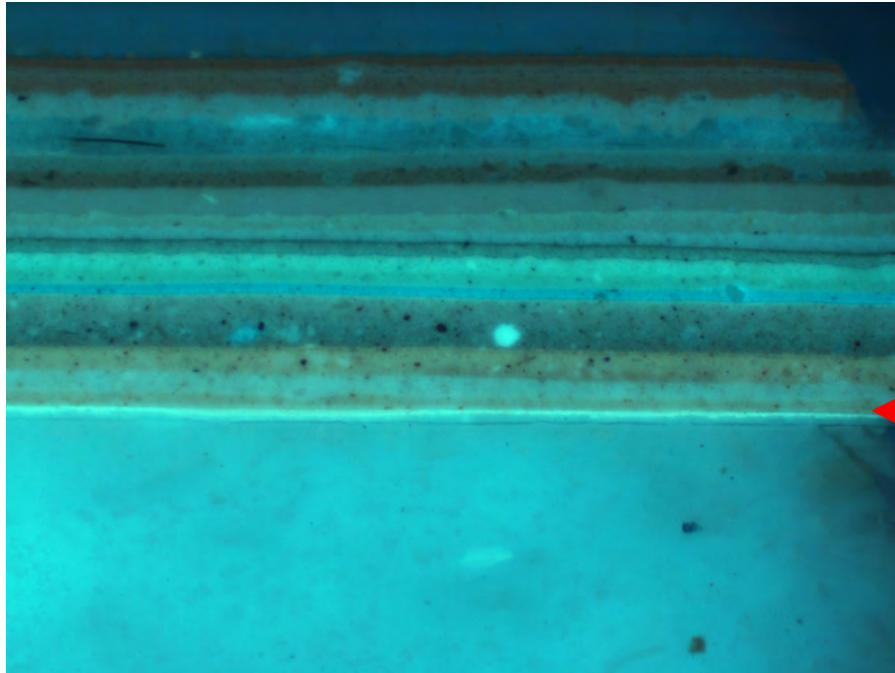


Figure 22. Sample CPH-3 (50x, ultraviolet light). A thin uniform layer is visible below the original light yellowish brown oil paint; it auto-fluoresces a bright green white. Further examination of the bulk sample through exposures revealed that this layer was a translucent size preparation layer and not a finish layer.

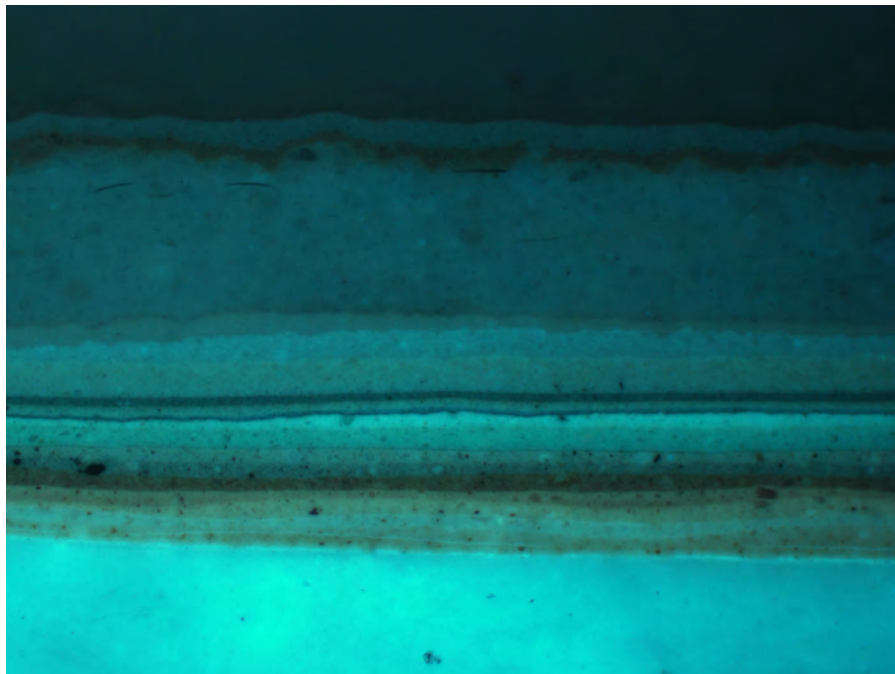


Figure 23. Sample CP-E-2 (50x, ultraviolet light). While not as uniform or apparent as the sample taken from the first floor service stair wall, above, this cross-section taken from the archived collection also shows the early preparation size layer auto-fluorescing in UV light.

3.4 Second Floor Exterior Balcony Wood Trim & Column

Furhoff did not specifically study the second floor balcony exterior wood elements or discuss them in his report. However, upon BCA's site visit, an original exterior wood column from the second floor balcony that has been stored in a basement closet was brought to our attention and sampled (Figure 24). Despite exclusion from his report, exterior wood trim balcony elements were also found in the archived collection of Furhoff bulk samples (Figure 25). This section of the report is therefore not intended to be verification of Furhoff findings, but a summary of the analysis performed on these new samples.

Summary of BCA Findings

After cross-section and bulk sample analysis, it does not appear these two balcony wood elements were originally treated in a similar manner and were, in fact, painted two different colors. Unfortunately, we do not know where exactly the wood trim Furhoff collected came from. He wrote "Exterior Balcony" in pencil on the piece of wood itself, but we do not know whether it was a window trim, door surround, or something else. Further investigation should be conducted on any other remaining original exterior wood bulk samples as well as original pieces of exterior trim remaining *in situ* to see whether they verify the results or colors of these two samples and to understand the balcony's originally appearance.

Trim

A cross-section of sample CP-F-I-2 shows that the original paint layer was a salmon pink color with traces of an off-white primer (Figure 27). Exposure of the bulk sample confirms the cross-section layer sequencing to reveal the original salmon color (Figure 26).



Figures 24 and 25. Left, original second floor balcony exterior wood column being stored in basement closet, sample CPH-4. Right, second floor balcony exterior wood trim from Furhoff archived sample collection, specific location unknown, sample CP-F-I-2.



Figure 26. Sample CP-F-I-2 bulk sample exposure revealing the original salmon color of the exterior wood trim element.

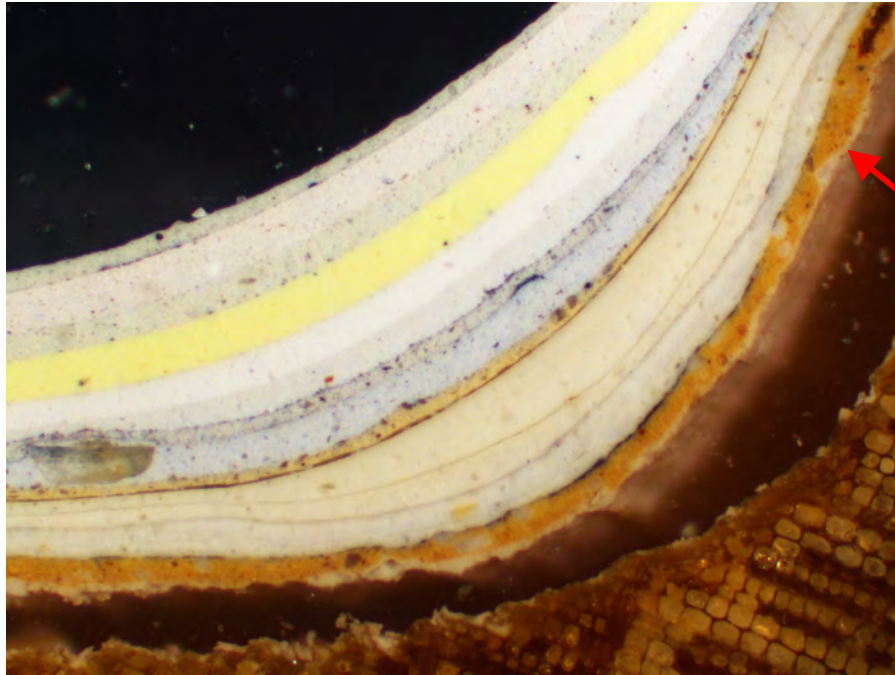


Figure 27. Sample CP-F-I-2 (50x, visible light). The original salmon pink oil-based paint and off-white primer layers are noted. Dirt layers are highly visible in this cross-section, which would make sense because it was an exterior element prone to higher levels of dirt and pollution.

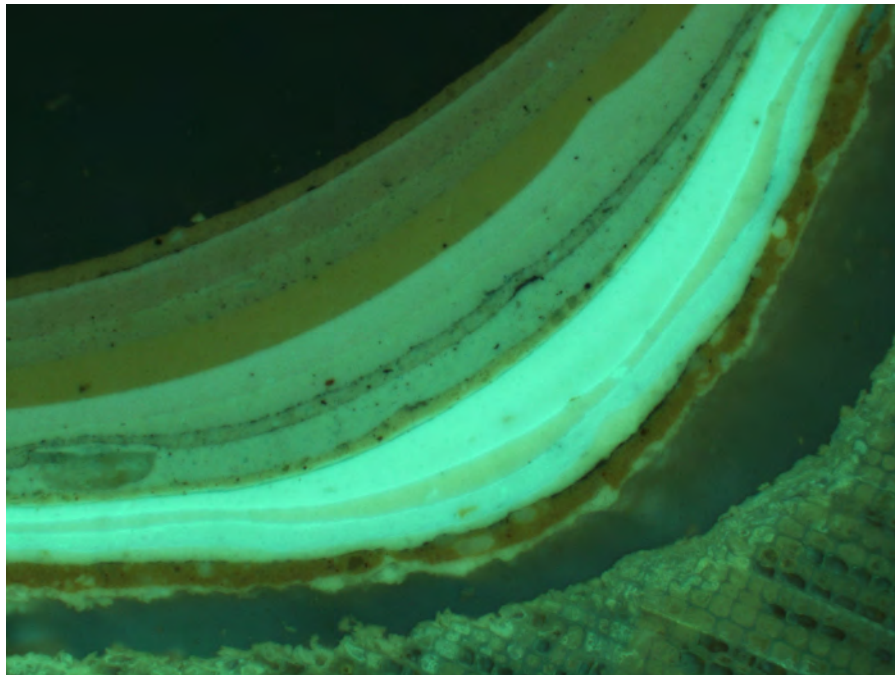


Figure 28. Sample CP-F-I-2 (50x, ultraviolet light). UV light helps aid in further layer distinction throughout the cross-section layer sequencing. No auto-fluorescence of importance is noted on the wood substrate itself or in the original paint layers.

Column

Sample CPH-4 was taken from the exterior column that is currently being stored in the basement closet. The cross-section photomicrograph shows numerous layers of earth-toned painted finishes. The original layer is thin and brown (Figure 30). An attempt to reveal the original color and finish through an exposure of the column bulk sample proved difficult because the original layer is so thin and the wood substrate was extremely soft and deteriorated. The original brown paint most likely served as a protective layer that added a richer color that would have been a slightly darker brown than the wood. The original layer could also be confirmed in the bulk sample when turned on its side to see the paint layer sequencing. Examination of the column itself confirms remnants of the original thin brown paint immediately on top of the wood substrate (Figure 29).



Figure 29. Inside the red circle, remnants of a thin brown layer can be observed immediately on top of the wood substrate on the balcony column. This evidence corroborates with the cross-section layering sequencing as well as the bulk sample exposure observations in the laboratory of corresponding sample CPH-4.

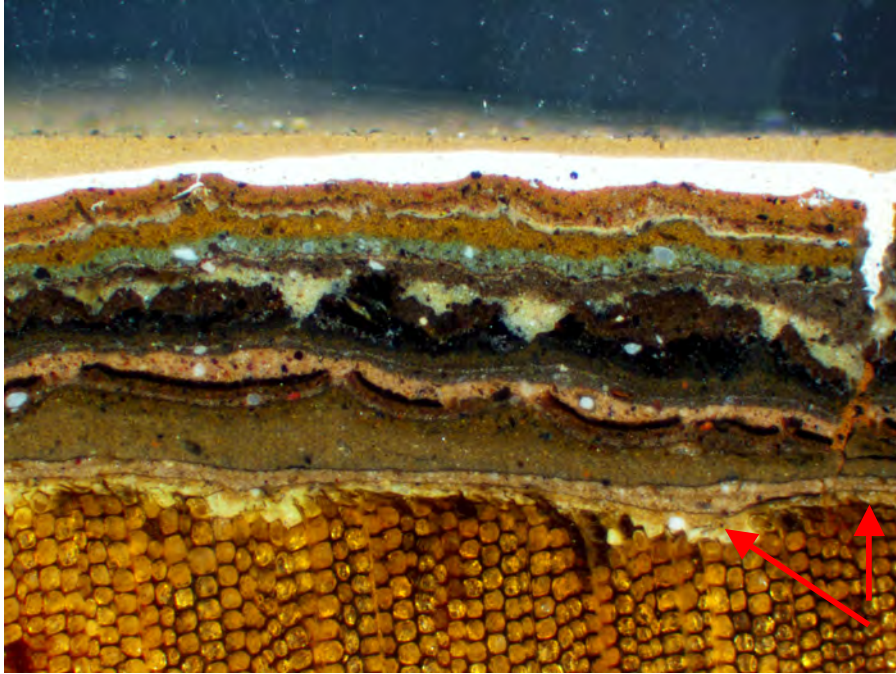


Figure 30. Sample CPH-4 (50x, visible light). The original layer is a thin, light brown.

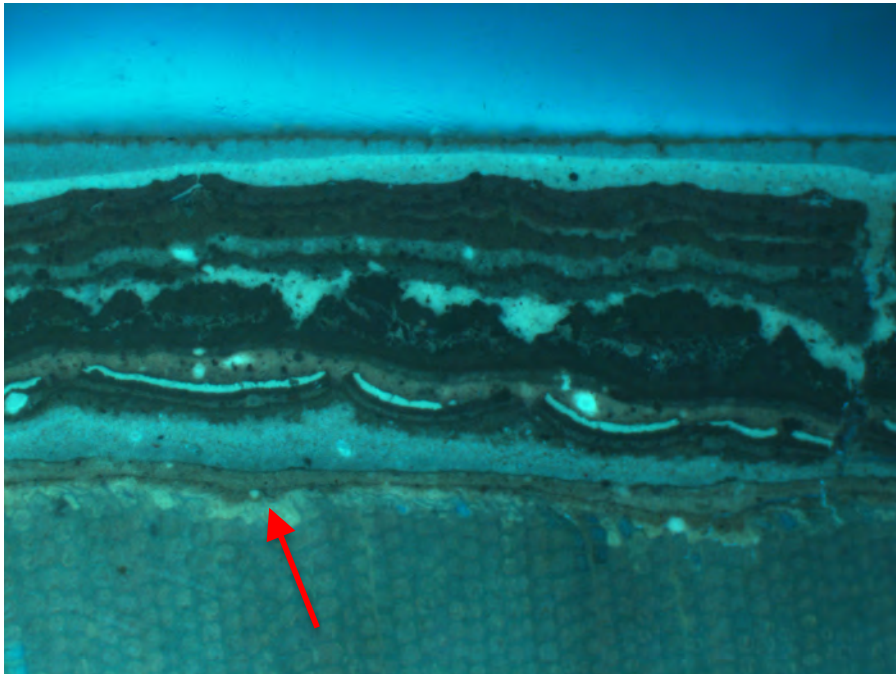


Figure 31. Sample CPH-4 (50x, ultraviolet light). The bottom-most portion of the original paint layer exhibits a slight auto-fluorescence. It could simply be the oils from the original paint layer but further instrumental analysis would have to be conducted in order to fully understand the material makeup of that layer. The wood substrate below this layer was unusually soft and deteriorated upon sample manipulation in the laboratory by scalpel during attempts at exposure to reveal the original layer.

4.0 CONCLUSIONS & RECOMMENDATIONS FOR FURTHER STUDY

Preliminary examination of paint samples removed by Robert Furhoff in 1986-87, in combination with examination of new samples removed by BCA, has revealed some information about the original finishes of the Charnley-Persky House. The following are a few conclusions and useful takeaways from this comparative analysis:

- Wall color in the living room and main stairway hall was a light brownish pink.
- Wall texture in these spaces was a fine sand float finish.
- This sand float finish was intentionally not used on all walls in all rooms; other spaces exhibited a smooth plaster finish.

This study has also generated several questions that will need to be answered through further research. BCA recommends the following tasks be performed in order to develop a more comprehensive understanding of the building's original finishes:

1. Document all original plaster and wood fabric remaining in the house and represent graphically on elevation drawings for ease of sampling and investigative purposes.
2. Conduct a full finishes study on all rooms using a combination of Furhoff's archived samples, on-site investigation and sampling and laboratory cross-section analysis.
 - a. Include instrumental/FTIR analysis to understand the chemical components and materials of the original layers, especially the clear resinous layer found on the entrance vestibule walls and the light brownish pink layer found on the living room and main hallway walls, which Furhoff identified as calcimine (distemper).
3. Perform *in situ* exposures to fully understand the original finishes in context, focusing on those areas where the original sand float finish layer texture and color remain.

Interpretation of Sand Float Finish

The sand float plaster finish in the main spaces of the Charnley-Persky House interior is the most important piece in terms of understanding the building's finishes and overall decorative treatment. The current interpretation may not be an accurate representation of what Wright/Sullivan had originally created and installed. Understanding the texture, color and material make-up of the sand float finish as well as possible should be a top priority in the master conservation plan. All of the corresponding bulk samples from the archived collection should be analyzed in addition to any original material that remains *in situ*.

The entrance vestibule samples from this study are probably the best representations of the sand float plaster finish texture. That texture clearly does not match the current interpretation of the main interior hallway, alcove, living and dining room plaster sand float plaster finish. In the current interpretation, the "grains" are too big and lumpy. The actual finish would have used much finer grains of real sand, as seen in the entrance vestibule wall bulk exposed samples.

While the debate will always be out in regards to attributing the design of the Charnley-Persky House to Louis Sullivan, Frank Lloyd Wright, or a combination of both, it is known that Frank Lloyd Wright continued to use the sand float plaster finish with paint in a variety of decorative applications at other buildings throughout his career, including the Robie House and Unity Temple. The finish became a signature piece of Wright interior aesthetic. The Charnley-Persky house is perhaps the earliest remaining example of this decorative treatment and so all efforts should be put into understanding it as well as possible and then implementing an interpretation that better reflects the architects' original intent.

Appendix A

Paint Sample List and Locations

MASTER SAMPLE LIST: CHARNLEY-PERSKY HOUSE

BCA SAMPLES AUGUST 2016

Number	Floor	Room	Element	Location
CPH-1	1st	back stair service hall	door	facing into pantry, door stile lower right
CPH-2		back stair service hall	door	facing stairs
CPH-3		back stair service hall	wall	
CPH-4	2nd	balcony exterior	column	upper portion (housed in storage)
CPH-5	1st	hallway	wall	right of entryway into living room
CPH-6	1st	entry vestibule	wall	north wall, upper left corner above bead board
CPH-7	1st	living room	wall	crack behind bookcase, S wall, left of entryway
CPH-8	2nd	south bedroom	wall	bedroom closet, left of door surround
CPH-9	2nd	north bedroom	wall	bedroom closet, inside right of door surround
CPH-10	2nd	south bedroom	wall	south wall to east of door to stairhall
CPH-11	2nd	south bedroom	wall	north wall to right of door to stairhall, behind door
CPH-12	3rd	linen closet	wall	west wall, north of window

FURHOFF ARCHIVED COLLECTION SAMPLES - cast

Number	Floor	Room	Element	Location
CP-E-2	basement	back stair service hall	wall	
CP-B-2-b	1st	hallway	wall	
CP-B-4h	1st	living room	wall	dado
CP-B-3-c	1st	alcove	wall	
CP-B-2-c	1st	hallway	wall	arch over cabinet
CP-B-4-d	1st	living room	wall	behind molded trim
CP-C-1-g	2nd	hallway	wall	above trim
CP-D-2-b	3rd	hallway	wall	alcove wall
CP-D-1-h	3rd	hallway	wall	wall behind cornice molding
CP-D-1-g	3rd	hallway	wall	wall above frieze trim
CP-F-1-2	2nd	balcony exterior	trim	balcony, original

COMPARE - in cross section & bulk

Floor	Room	Element	Furnhoff	BCA
basement	back stair service hall	wall	CP-E-2	
1st				CPH-3
2nd	balcony exterior	trim	CP-F-1-2	
		column		CPH-4
1st	hallway	wall	CP-B-2-b	CPH-5
	living room	wall	CP-B-4h	
	alcove	wall	CP-B-3-c	
	hallway alcove	wall	CP-B-2-c	
	living room	wall	CP-B-4-d	
2nd	hallway	wall	CP-C-1-g	
3rd	hallway alcove	wall	CP-D-2-b	
	hallway	wall	CP-D-1-h	
	hallway	wall	CP-D-1-g	
1st	entry vestibule	wall	CP-B-1-b	CPH-6a
				CPH-6b

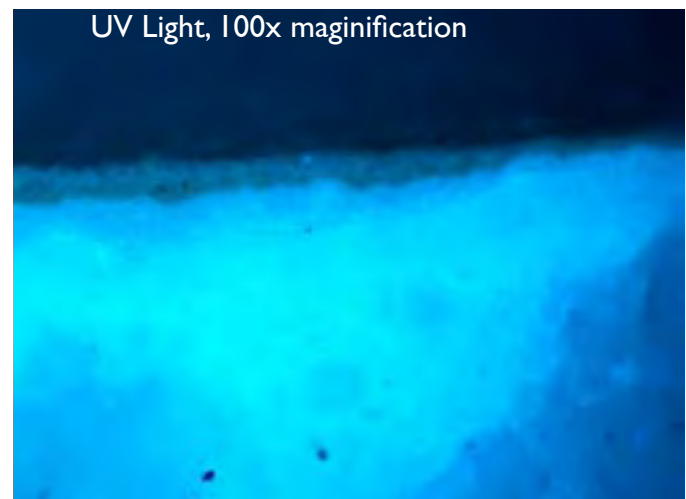
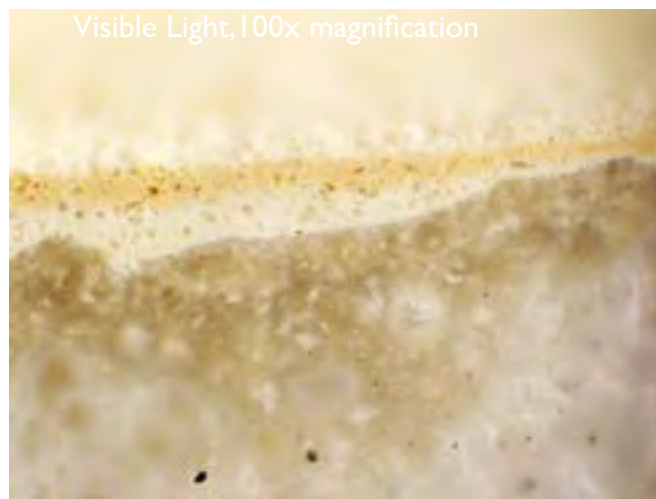
Appendix B

Paint Sample Stratigraphies and Photomicrographs

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CPH-5	ROOM: 1st floor hallway
DATE SAMPLED: August 2016	DATE ANALYZED: September 2016
SAMPLED BY: K. Lenehan	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor hallway wall, right of entryway to living room	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	white	
2	light tan	

LAYER	REFLECTED LIGHT COLOR	NOTES

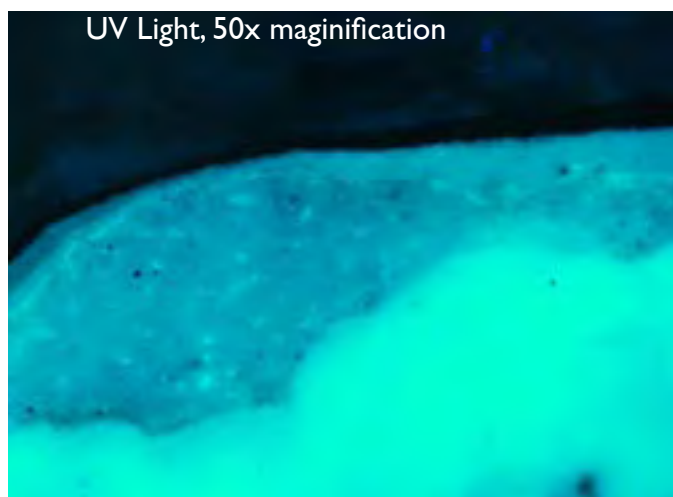
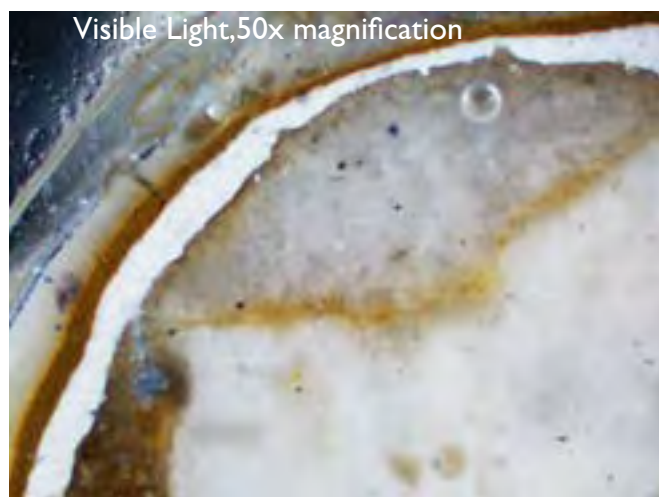
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-B-4-d	ROOM: living room
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor living room wall, behind a molded trim	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	light brownish pink	discoloration on bottom of layer; possible distemper
2	white	
3	dark brown	
4	white	

LAYER	REFLECTED LIGHT COLOR	NOTES

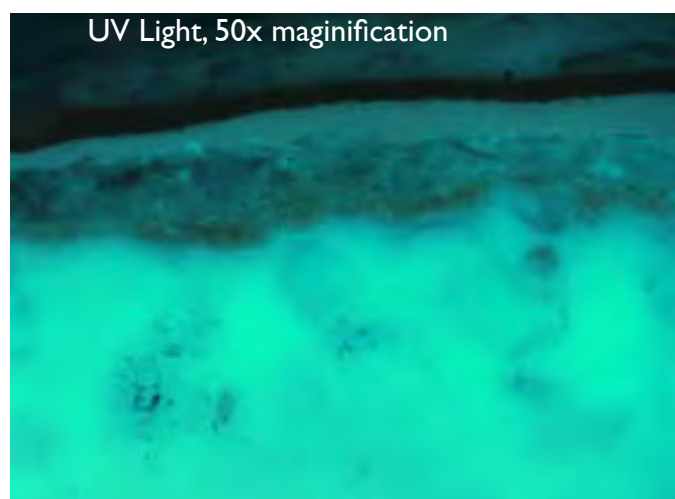
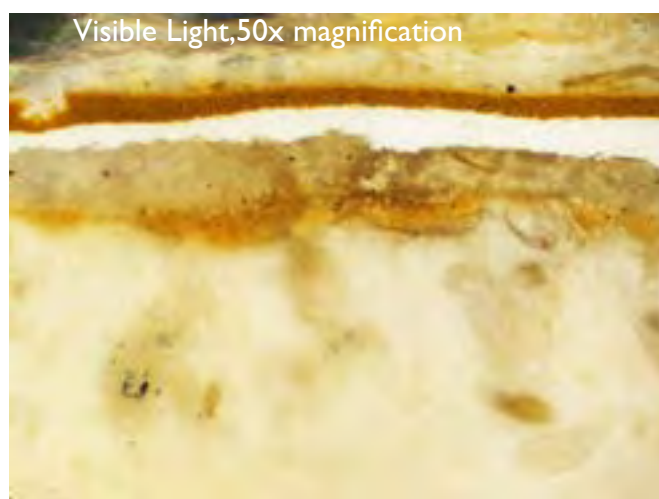
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-B-4h	ROOM: living room
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor living room wall, dado level	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
I	light brownish pink	discoloration on bottom of layer; possible distemper
2	white	
3	dark brown	
4	white	

LAYER	REFLECTED LIGHT COLOR	NOTES

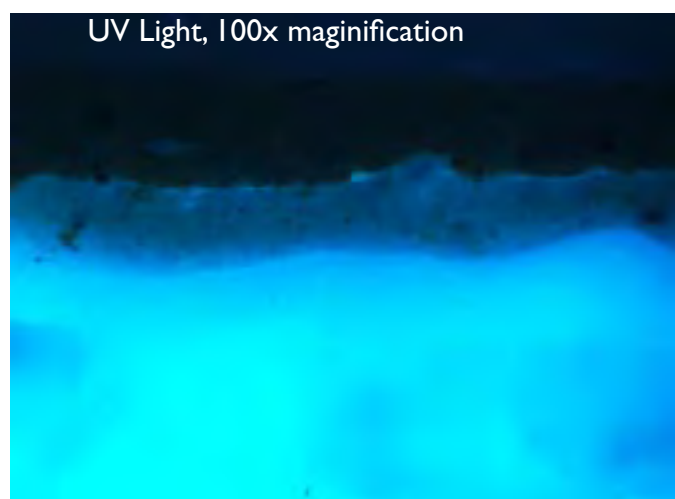
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-B-2-b	ROOM: 1st floor hallway
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor hallway wall; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	light brownish pink	possible distemper
2	orange red	
3	dark red	

LAYER	REFLECTED LIGHT COLOR	NOTES

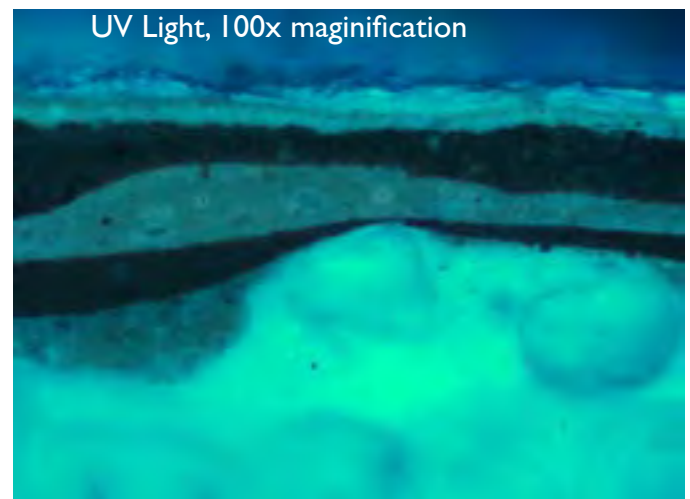
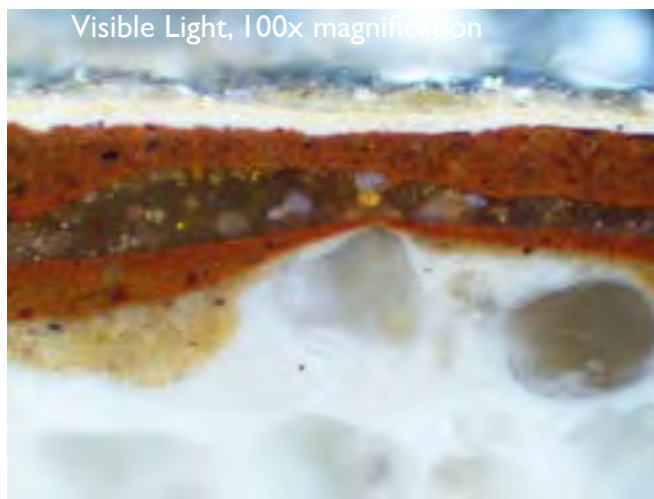
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-B-2-c	ROOM: 1st floor hallway
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor hallway wall, arch over cabinet; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	light brownish pink	possible distemper
2	orange red	
3	dark red	
4	brown	translucent
5	dark red	
6	dark red	
7	white	
8	light tan	

LAYER	REFLECTED LIGHT COLOR	NOTES

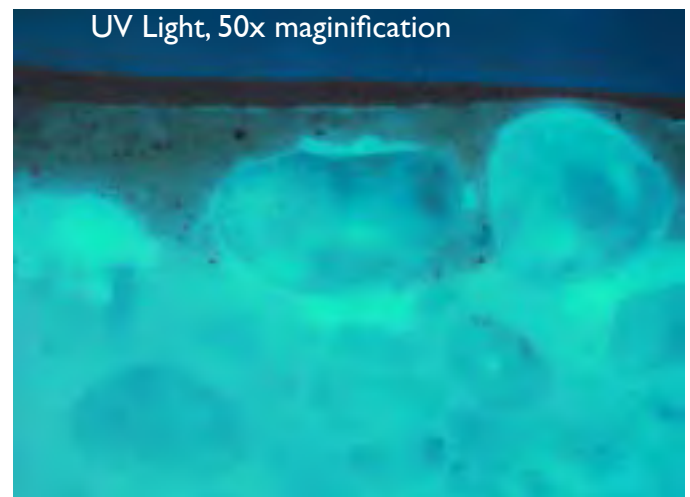
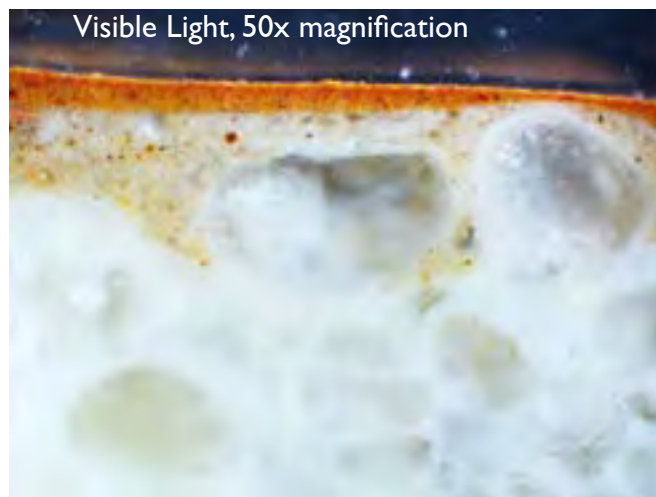
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-B-3-c	ROOM: 1st floor alcove
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor alcove wall; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	light brownish pink	possible distemper
2	orange red	
3	dark red	

LAYER	REFLECTED LIGHT COLOR	NOTES

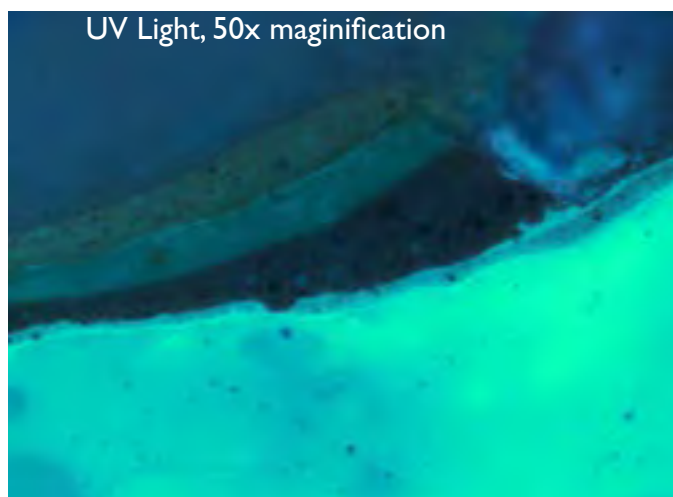
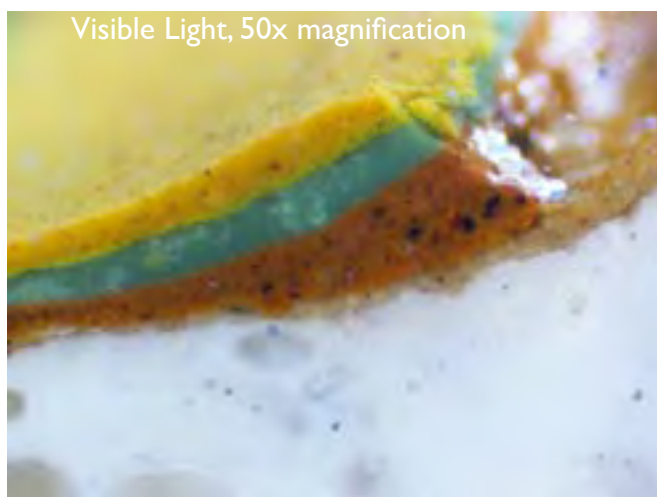
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-C-I-g	ROOM: 2nd floor hallway
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: Second floor hallway wall, above trim; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	light brownish pink	possible distemper
2	orange red	
3	dark red	
4	turquoise blue	
5	yellowish-green	thin
6	yellow	

LAYER	REFLECTED LIGHT COLOR	NOTES

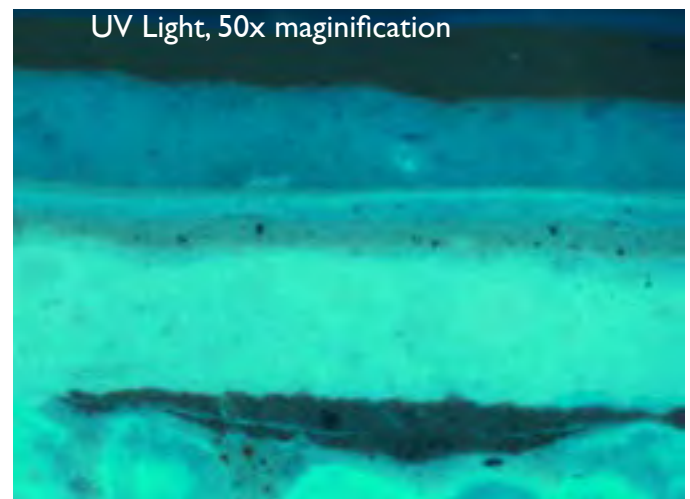
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-D-I-g	ROOM: 3rd floor hallway
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: Third floor hallway wall, above frieze trim; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	light brownish pink	possible distemper
2	orange red	
3	dark red	
4	off-white	
5	off-white	thin
6	white	
7	white	
8	white	thick, translucent
9	tan	

LAYER	REFLECTED LIGHT COLOR	NOTES

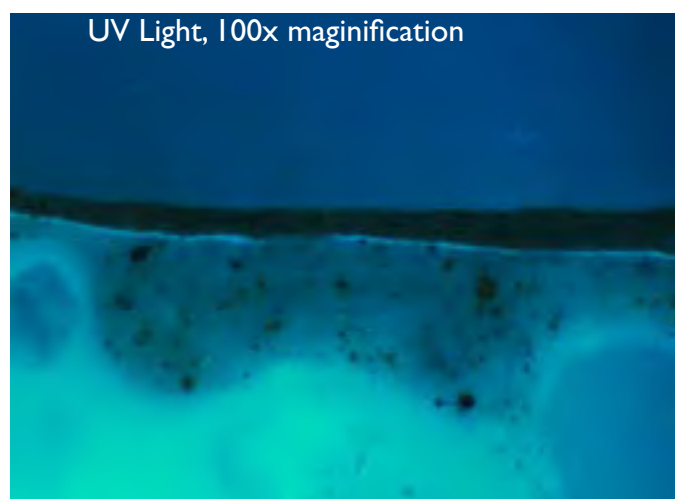
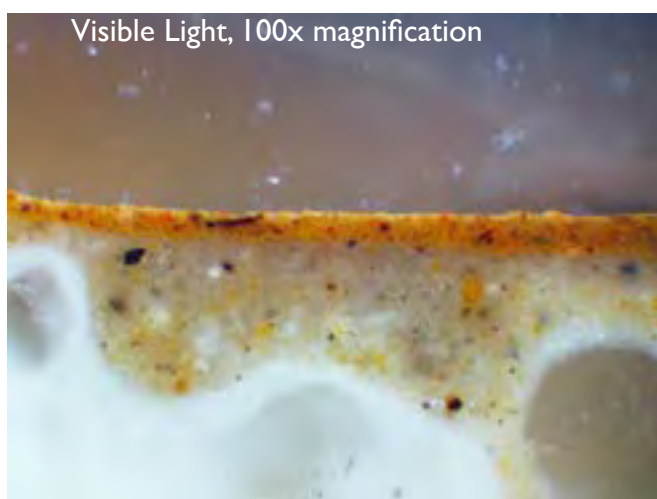
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-D-I-h	ROOM: 3rd floor hallway
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: Third floor hallway wall, wall behind cornice molding; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	light brownish pink	possible distemper
2	orange red	

LAYER	REFLECTED LIGHT COLOR	NOTES

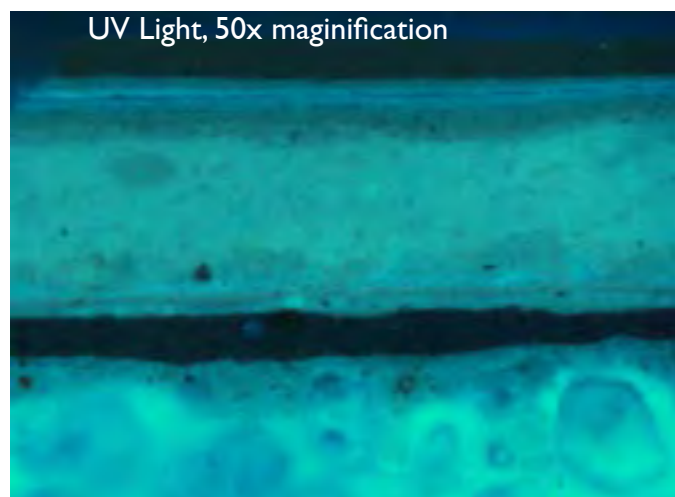
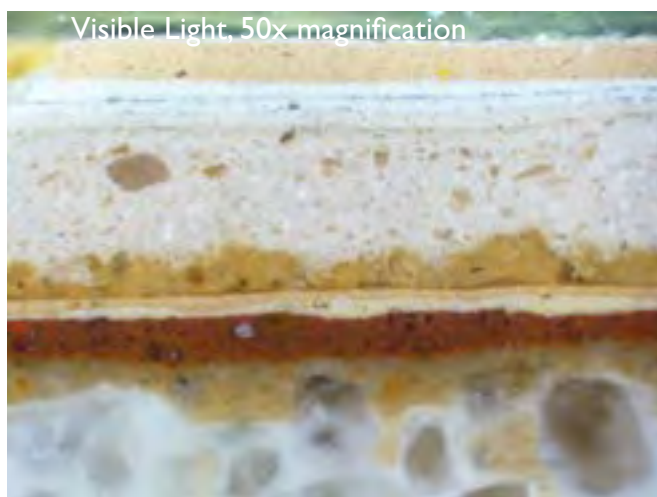
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-D-2-b	ROOM: 3rd floor hallway
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: Third floor alcove hallway wall; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
I	light brownish pink	possible distemper
2	orange red	
3	dark red	
4	white	
5	peach	
6	tan	
7	off-white	thick
8	off-white	
9	white	
10	white	
11	tan	

LAYER	REFLECTED LIGHT COLOR	NOTES

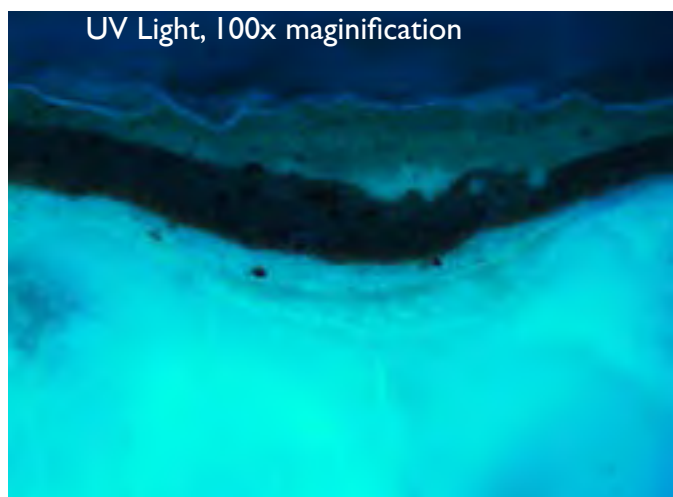
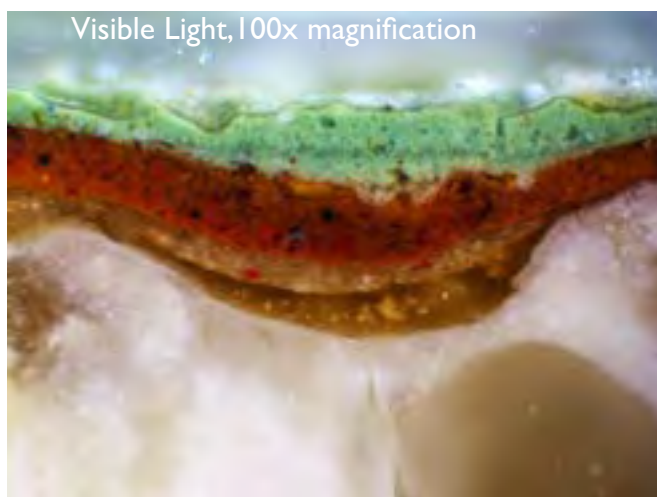
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CPH-6	ROOM: entrance vestibule
DATE SAMPLED: August 2016	DATE ANALYZED: September 2016
SAMPLED BY: D. Krotzer	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor entrance vestibule, north wall, upper left corner above bead board	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	brown	resinous, translucent
2	brown	resinous, translucent
3	orange red	
4	dark red	
5	mint green	
6	mint green	

LAYER	REFLECTED LIGHT COLOR	NOTES

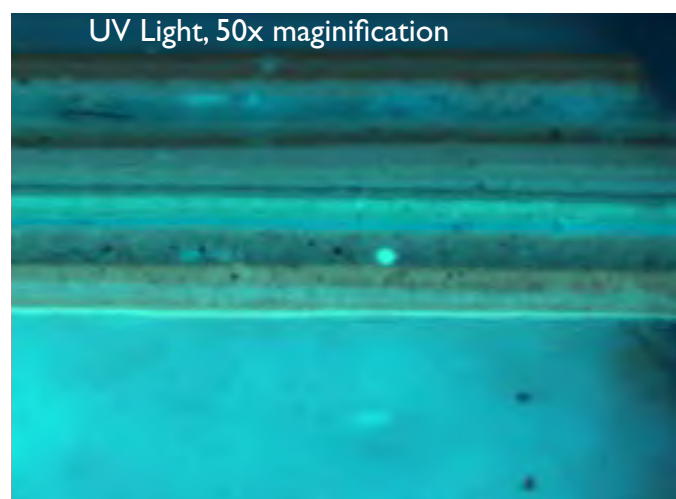
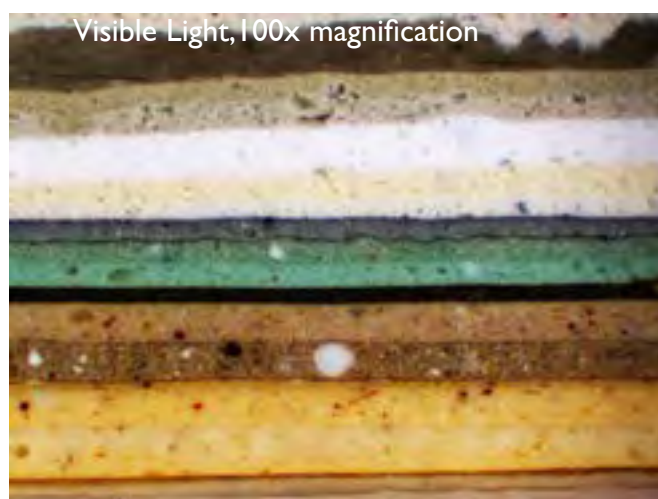
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CPH-3	ROOM: back service stairs
DATE SAMPLED: August 2016	DATE ANALYZED: September 2016
SAMPLED BY: D. Krotzer	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: First floor back service stair hall wall, to right of door into kitchen pantry	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	brown	thin, resinous, translucent
2	light yellow	
3	off-white	
4	light yellow	
5	brown	
6	pinkish tan	
7	mint green	
8	mint green	
9	gray	
10	dark gray	
11	white	
12	off-white	
13	white	

LAYER	REFLECTED LIGHT COLOR	NOTES
14	light gray	
15	light gray	
16	gray	
17	white	
18	peach tan	
19	peach tan	

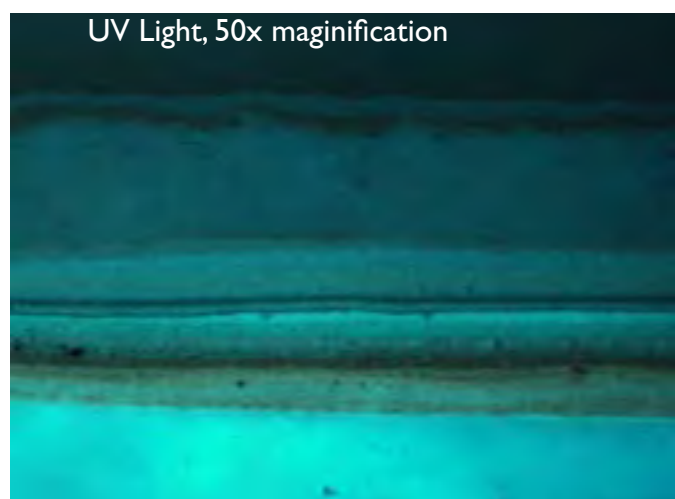
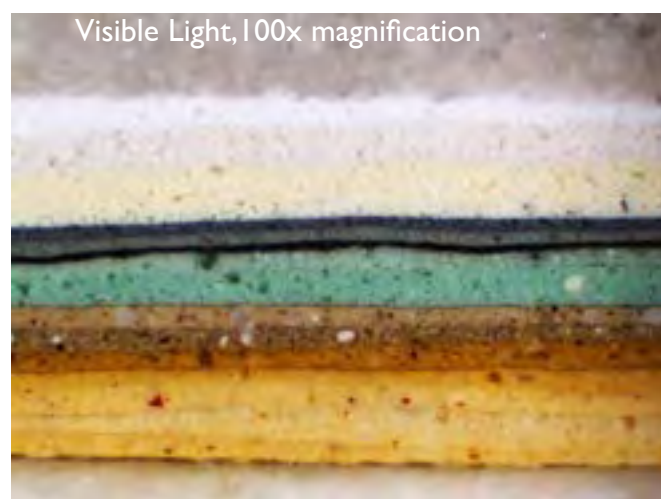
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-E-2	ROOM: back service stairs
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: Basement back stair service hall; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Plaster		
1	brown	v. thin, resinous, translucent
2	light yellow	
3	off-white	
4	light yellow	
5	yellow	
6	light brown	
7	pinkish tan	
8	mint green	
9	mint green	
10	black	thin
11	gray	
12	dark gray	
13	off-white	

// denotes a break in the sample.

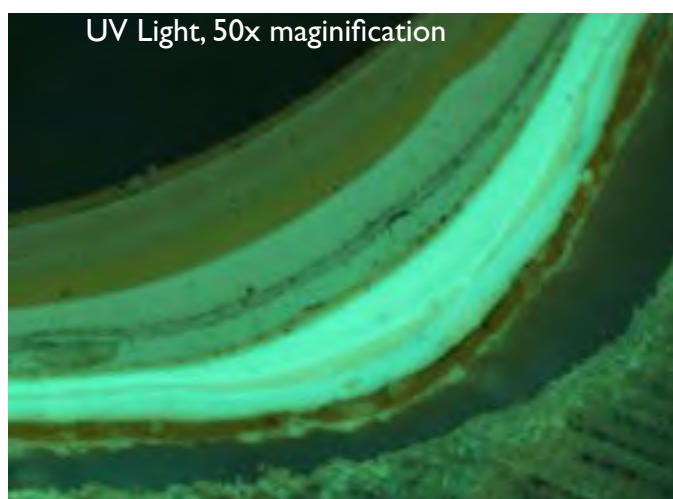
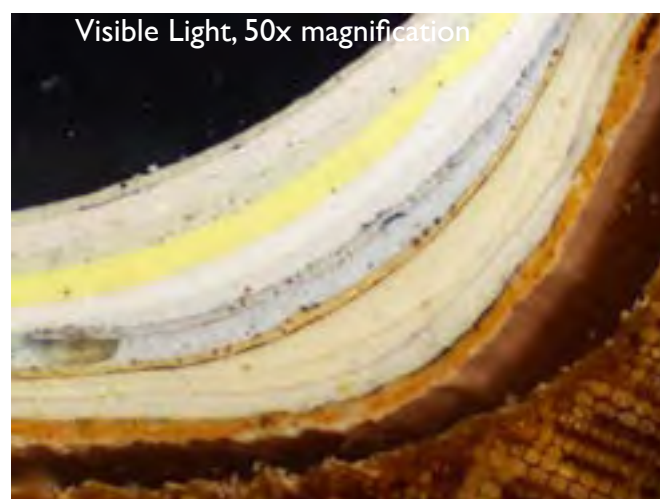
Bold denotes known presentation layer.

LAYER	REFLECTED LIGHT COLOR	NOTES
14	off-white	
15	white	
16	gray	
17	gray	
18	gray	

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CP-F-1-2	ROOM: 2nd floor exterior balcony
DATE SAMPLED: 1987 bulk sample archived collection	DATE ANALYZED: September 2016
SAMPLED BY: B. Furhoff	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: Second floor exterior balcony trim; specific location unknown	



LAYER	REFLECTED LIGHT COLOR	NOTES
Wood		
1	off-white	primer
2	salmon pink	
3	pale light blue	
4	pale light blue	
5	off-white	
6	off-white	
7	glaze	thin brown
8	light pink	
9	light blue	
10	light gray	
11	white	
12	white	
13	lemon yellow	

LAYER	REFLECTED LIGHT COLOR	NOTES
14	light gray	
15	white	
16	white	

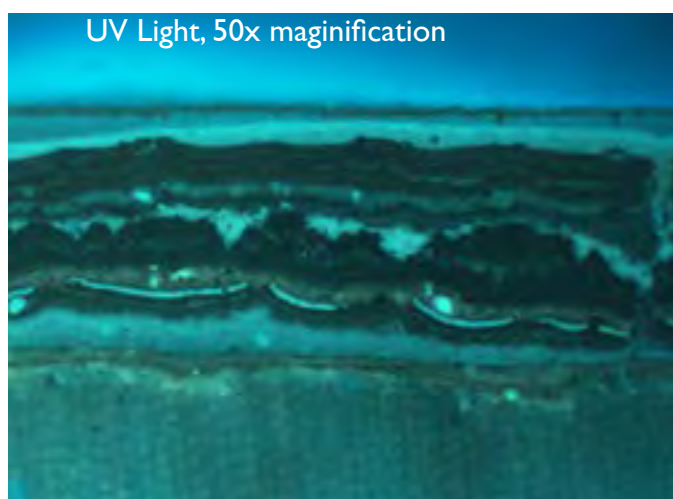
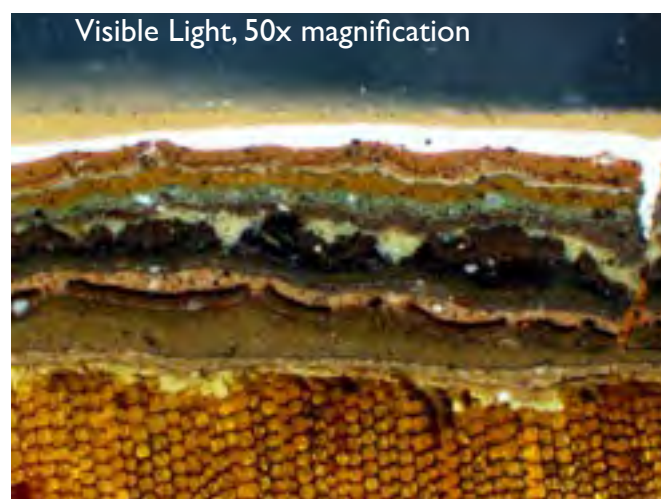
// denotes a break in the sample.

Bold denotes known presentation layer.

Charnley-Persky House

Interior Architectural Finishes: A Review of Previous Findings

SAMPLE #: CPH-4	ROOM: 2nd floor exterior balcony
DATE SAMPLED: August 2016	DATE ANALYZED: September 2016
SAMPLED BY: D. Krotzer	ANALYZED BY: K. Lenehan
MICROSCOPE: Nikon 50i compound fluorescence microscope	CAMERA: Nikon DigiSight
DESCRIPTION: Second floor exterior balcony column; column in basement storage closet	



LAYER	REFLECTED LIGHT COLOR	NOTES
Wood		
1	light brown	
2	pink brown	
3	pink brown	
4	brown	
5	dark brown	
6	gray	
7	dark brown	
8	black	
9	salmon pink	
10	gray	
11	dark brown	
12	black	
13	brown	

LAYER	REFLECTED LIGHT COLOR	NOTES
14	off-white	
15	brown	
16	off-white	
17	off-white	v. thin
18	green	
19	mustard yellow	
20	white	
21	salmon pink	
22	dk reddish pink	
23	white	
24	brown	

// denotes a break in the sample.

Bold denotes known presentation layer.

Appendix C

Robert Furhoff Report
“Investigation of Interior Finishes.
The Charnley House, ca. 1891”
March 1987

INVESTIGATION OF INTERIOR FINISHES
THE CHARNLEY HOUSE ca. 1891
1365 ASTOR ST. CHICAGO, ILLINOIS

MARCH 1987 This research was commissioned by
SKIDMORE, OWINGS & MERRILL FOUNDATION CHICAGO, ILL.

File

CHARNLEY HOUSE

FINISH SCHEDULE

ROOM SCHEDULE

November 18, 1987

NO.	WALL	CEIL.	TRIM
001	P-15	P-15	P-14
002	"	"	"
003	"	"	"
004	"	"	"
005	"	"	"
006	"	"	"
007	P-16	P-17	P-14
008	na	P-17	P-14
201	P-6	P-8	P-4
202	P-8	P-8	P-4
203	P-8	P-8	P-4
204	P-8	P-8	P-4
205	P-6	P-6	P-4
206	P-1	P-1	var
207	na	P-18	P-18
208	P-7	P-7	P-5
209	P-7	P-8	P-5
210	P-9	P-9	P-5
211	P-15	P-15	P-14

NO.	WALL	CEIL.	TRIM
101	P-1	P-1	var.
102	"	"	"
103	"	"	"
104	P-2	P-2	"
105	P-1	P-1	"
106	"	"	"
107	P-3	P-15	P-3
108	P-15	P-15	P-14
301	P-11	P-8	P-10
302	P-13	P-13	P-12
303	P-13	P-13	P-12
304	P-11	P-11	P-10
305	P-1	P-1	var
306	P-1	P-1	P-10
307	P-11	P-11	P-10
308	P-11	P-8	P-10
309	P-11	P-8	P-10
310	P-15	P-15	P-14

	Manufacturer	color	finish
P-1	Benjamin Moore	CB-87	flat
P-2	Tinted amber varnish or shellac to match Munsell 10YR-6/8		
P-3	Pratt & Lambert	0223A Oakleaf Brown	*eggshell
P-4	Special color	Plochere #268	eggshell
P-5	Benjamin Moore	CB-62	eggshell
P-6	Benjamin Moore	CB-16	flat
P-7	Benjamin Moore	GB-107	flat
P-8	Benjamin Moore	CB-5	flat
P-9	Benjamin Moore	CB-16	satin
P-10	Benjamin Moore	OP-94	eggshell
P-11	Pratt & Lambert	Y0289P Peanutshell	flat
P-12	Devoe	290C Allspice	semi-gloss
P-13	Benjamin Moore	CB-60	satin
P-14	Benjamin Moore	CB-54	satin
P-15	Devoe	2D56C Stitchery	flat-eggshell
P-16	Benjamin Moore	CB-3	satin
P-17	Benjamin Moore	CB-41	satin
P-18	outdoor porch		
P-19	Benjamin Moore	gray conc. paint	

* NOTE: Pratt & Lambert eggshell may be shinier than Benjamin Moore's eggshell. P & L paint may require flattening to match other painted woodwork.

INVESTIGATION OF INTERIOR FINISHES
THE CHARNLEY HOUSE ca. 1891
1365 ASTOR ST. CHICAGO, ILLINOIS

OBJECTIVE

Conduct an on site investigation to identify the original interior decorative finishes and paint colors; and identify any subsequent interior alterations to the original design.

METHOD OF PAINT INVESTIGATION

Investigation was conducted by removing samples from different painted surfaces for microscopic inspection. The location and number of samples selected was determined by the varying surfaces of architectural details that may contain color changes within a multi-color decorative scheme. Extensive samples were collected to assure representative samplings and because of the deteriorated condition of the wall and ceiling surfaces.

On the second and third floors, original woodwork paint finishes were found extant behind the door knob back plates.

A binocular microscope with magnification from 10X to 80X was used for viewing the samples and establishing the general sequence of decorative treatments.

IDENTIFICATION OF PAINT COLORS

The complete paint layer sequence of a surface is listed by a general chromochronology. Color names ie; pinkish white or yellow white, used within the chromochronology are general terms used only to distinguish differences between adjacent paint layers and are not intended to be accurate color identifications.

Only the original painted finishes and a few of the second period decoration have been color coded for identification.

Original surfaces that had received subsequent paintings were exposed under the microscope by removing the subsequent paint and visible surface deterioration with a surgeon scalpel. No chemicals were used. Original extant surfaces were inspected for soiling and deterioration. All samples were exposed to diffused natural day light and observed for any color correction.

IDENTIFICATION ON PAINT COLORS CONTINUED

The cleanest and brightest samples were selected for color identification. Color identification was by visually matching the original sample to the Munsell Color System (1) in natural daylight and under controlled color corrected artificial light (2). For record all colors have Munsell notations and color samples. Where no Munsell color sample is available, alternate samples have been submitted for reference (3). These alternate samples are exact matches to the original paint sample. Identified colors are given names according to the National Bureau of Standards, Universal Language & Dictionary of Names (4).

ORIGINAL AND EXISTING CONDITION OF PLASTER SURFACES

A white sand float plaster finish was used for all walls and ceilings in the house, except for the second floor bedrooms which have a smooth plaster finish. Most plaster surfaces are original to the house and not a result of the major 1927 alteration. The only loss of original plaster are the ceilings of the third floor hallway and north bedroom.

Early finishes were calcimine, applied by top coating the previous calcimine layer. The current surface condition is an accumulation of calcimine and, because of its deterioration, a succession of sealers, plaster skim coats, paper, other repair treatments and subsequent decorative finishes. Only bedroom walls were cleaned of calcimine at some period. Though all surfaces are in poor condition with random and irregular layering of coatings, a general sequence of decoration could be identified.

IDENTIFICATION OF ORIGINAL DECORATIVE FINISH OF PLASTER SURFACES

Fortunately the traditional practice in quality calcimine painting to remove old calcimine was not applied in the Charnley House. This has preserved evidence of the original color in the living room, dining room, and the entire three story stairhall.

The bottom most layer was the same color in all spaces and is assumed to be original. There was no trace of any previous finish or color. Had there been a previous calcimine, some residue would have been apparent because of the textured plaster surface.

In the entrance vestibule the original finish was a transparent resin finish. This surface treatment contained considerable soiling, indicating its exposure for a period of time.

The original treatment in the second floor bedrooms can not be determined.

SUBSEQUENT DECORATIVE FINISHES OF PLASTER SURFACES

With the second decorative treatment the living room, dining room and the three story stairwell were each painted a different color. It is not possible to determine if this change from the original color scheme occurred during the Charnley occupancy.

The second color scheme was repeated for approximately four additional decorative sequences. During this period the entrance vestibule was painted to match with the hallway. This repetitive sequence could possibly be the period when the house was rental property.

ORIGINAL AND EXISTING CONDITIONS OF WOODWORK

All woodwork on the first floor and the three story stairwell has always been a clear resin finish.

The fireplace mantels in the three bedrooms were originally a clear resin finish. The remaining woodwork in the bedrooms, closets and bathrooms was originally painted with a low gloss oil base paint. Each of the three bedrooms with their adjoining service areas were painted a different color.

The second floor bedrooms were painted a second time with a color similar to the original. The third floor bedroom did not receive a repeat treatment and contains a more solid original surface.

At the third painting all woodwork including the fireplace mantels were painted a glossy white. With a few exceptions, the glossy white finish was repeated for the subsequent paintings.

Recently the second floor north bedroom woodwork has been stripped and varnished.

SPECIAL NOTE: The backside of the south bedroom fireplace mantel contained a manufacturer's paper label.

THE HENRY DIBBLE CO.

English Ceramic Mosaics, Mantels, Grates and Tiles
Fine special Furniture
Chicago

Factory
194, 196, & 198 So. Clinton St.

Office & Salesroom
266 & 268 Wabash Ave

Mantel No. 10
Order No. 600
name Jas. Charnley

The backside of the north bedroom (2nd. fl.) fireplace mantel contained Charnley's name chalked onto it.

CHARNLEY HOUSE

FOOTNOTES

1. MUNSELL COLOR CO., 2441 N. Calvert St., Baltimore, Maryland 21218. Color system consists of 1568 different colors of opaque pigmented films on cast-coated paper. Munsell Color System identifies color in terms of three attributes - hue, value and chroma $\frac{h}{v/c}$.

2. Artificial light sources assist in refining color matching of paint samples to color system color chips, by observing for any effect of metamerism under changes of illumination. In addition to natural daylight, lamps used were General Electric Chroma 75 for general lab illumination; and quartz halogen fiber-optic illuminator, with a blue daylight filter attached to the microscope, for matching samples under magnification.

3. Alternate color samples are:

- a. Plochere Color System, 1820 Hyperion Ave. Los Angeles, CA.
- b. Benjamin Moore Paint Co., Moor-O-Matic II Universal Color
- c. Pratt & Lamber Paint Co., Calibrated Colors
- d. Pittsburg Paints, DesignaColor System
- e. Devoe & Raynolds Paint Co., The Color Key Program

4. The Inter-Society Color Council (ISCC) and the National Bureau of Standards (NBS) developed the ISCC-NBS method of designating colors and a dictionary of color names; COLOR, UNIVERSAL LANGUAGE AND DICTIONARY OF COLOR NAMES: U.S. Dept. of Commerce, NBS Publication 440.

ORIGINAL DECORATIVE TREATMENT

ENTRANCE VESTIBULE

The ceiling and wall frieze area are treated the same. The plaster has no primer but is treated with a thick coating of shellac or spirit varnish of a good amber color. Coating is not absorbed by the plaster and has a high gloss finish.

NOTE: A transparent color can not be represented by an opaque paint film. The color appearance of the finished wall varies due to the coating thickness over the irregular sand float texture. The color sample submitted would approximate the darkest concentration of the coating; but the general surface would appear lighter.

dark orange yellow

MUNSELL $\frac{10 \text{ YR}}{6/8}$



LIVING & DINING ROOMS

MAIN HALLWAY & STAIRS - FIRST, SECOND AND THIRD FLOORS

The full wall surface, wall frieze area and ceilings are all treated the same. The plaster has no sealer or prime coat. Treatment is calcimine.

light brownish pink

MUNSELL $\frac{7.5 \text{ YR}}{7.5/3}$



sample submitted is
Benjamin Moore CB-87

ORIGINAL DECORATIVE TREATMENT

2ND FLOOR - BEDROOMS

WALLS AND CEILINGS

The original finishes can not be determined.

Considering that all other rooms were a sand float texture surface, these two rooms were prepared for the possible application of paper. Small fragments of wallpaper were found behind the fireplace mantels and one layer of wallpaper exists behind the 1927 alteration in the south room.

A resin finish does occur on the plaster, however there is no telling whether wallpaper had been installed prior to sizing the walls. The sizing would be preparation for calcimine. For a good calcimine job on smooth plaster, the surface requires a gloss oil size coat. In the north room this sizing is its natural yellow color. In the south room the sizing is a pale green color. This treatment can not be considered a finish glaze treatment for the plaster because it is very transparent and there is no basecoating that would hide inequalities from troweling the plaster.

If not original, the calcimine would be an early treatment, see sequence of finishes. The color of the sizing maybe some indication as to the color of the rooms; that the size was tinted approximately the finish calcimine color.

SIZE - NORTH BEDROOM

pale yellow

MUNSELL $\frac{2.5 Y}{8.25/3}$ 

sample submitted is
Plochere 135

SIZE - SOUTH BEDROOM

grayish greenish yellow

MUNSELL $\frac{7.5 Y}{7.5/3}$ 

sample submitted is
~~PPG Paints M3458~~
GLIDDEN 74-59

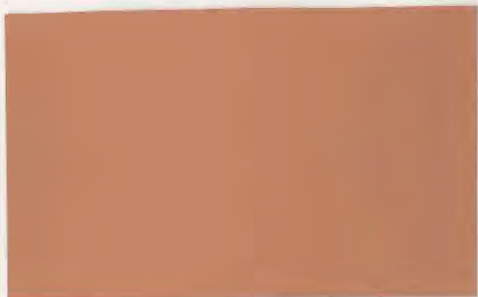
ORIGINAL DECORATIVE TREATMENT

2ND FLOOR - BEDROOMS

WOODWORK - NORTH BEDROOM

moderate yellowish pink

MUNSELL 3.75 YR
6/6



sample submitted is
Plochere 268

WOODWORK - SOUTH BEDROOM

moderate yellowish brown

MUNSELL 8.75 YR
5.75/5



sample submitted is
Benjamin Moore CB-62

NOTE: Because the north room woodwork had been stripped, color identification is from woodwork in the adjoining closet. This color is the same as in the bedroom under the door knob back plates and original finish surviving on the ceiling cornice molding covered by ceiling skim coating.

ORIGINAL DECORATIVE TREATMENT

3RD FLOOR - NORTH BEDROOM

The full wall surface up to the half round ceiling molding was one color of calcimine. The ceiling is unknown. The ceiling molding has a factory finish of high gloss white enamel over gessoed wood.

WALL

grayish yellow

MUNSELL $\frac{1.25 Y}{7.5/4}$

WOODWORK

moderate orange

MUNSELL $\frac{6.25 YR}{6.25/6}$ 

sample submitted is
Pratt & Lambert #Y0289P



sample submitted is
Benjamin Moore OP-94

NOTE: The original calcimine wall finished had been removed from the general wall surface. The above color is based on the following observation. Within the accumulated paint layers at the junction of the wall and the wood corner bead molding (projecting corner at right of the closet door) a thick globule of calcimine was encased between the original wood paint color and the first wood white layer. The only other calcimine within this same paint accumulation can be identified by other conditions to date to the 1927 alterations.

The flat center section of the ceiling has been replastered. Interpretation of the ceiling color will have to be based on the paint sequences on the ceiling side of the half round bead molding. This molding is located on the ceiling at the point where the wall cove meets the flat ceiling surface. On the cove side of the molding is residue of the same two calcimine wall colors found on the corner bead molding; establishing the ceiling molding as original to 1891. On the ceiling side of the molding were several layers of white calcimine under several layers of white oil paints. The paint evidence was too small and fragmented to achieve a good sample for coding. A yellowish off white or very pale tint of the wall color should be used for restoration painting.

ORIGINAL DECORATIVE TREATMENT

3RD FLOOR - NORTH BEDROOM - BATHROOM

The original bathroom has been remodeled, but original woodwork does exist. The walls and ceilings are unknown.

WOODWORK

light yellowish brown

MUNSELL $\frac{7.5}{6.5/5}$ YR



sample submitted is
Devoe 290C Allspice

NOTE: In the adjoining bedroom, the windows were enlarged in 1927. Some of the wood framing used in the construction was salvaged pieces of beaded board siding with several layers of oil paint. The first layer is the same color as the surviving woodwork in the bath room. This siding is typical of the type of wainscoting used for bathrooms and utility areas during later years of the 19th century and the first decades of the 20th century.

INVESTIGATION OF INTERIOR FINISHES
THE CHARNLEY HOUSE ca. 1891
1365 ASTOR ST. CHICAGO, ILLINOIS

ADDENDUM #1

November 19, 1987

place in original
report as page 8a

After the investigation of interior finishes report was completed, construction processes revealed additional information regarding the subsequent decorative treatments. Removal of the wood ceiling cornices indicated that the cornices, in the main hall on all three floors, had been removed at different times to accommodate later decorating.

Originally the cornice was installed after the walls and ceiling were calcimined.

Sequence of subsequent calcimining.

SECOND DECORATIVE TREATMENT cornices were removed on the first and third floors. First floor wall and wall frieze were a brownish pink and the ceiling a slightly grayer brownish pink. On the third floor both the wall frieze and ceiling were the same grayer brownish pink of the first floor ceiling; suggesting that this color was used continuously up the open stair well.

THIRD DECORATIVE TREATMENT cornices were removed on the first and second floors. First floor wall and wall frieze were a brownish orange and the ceiling a moderate orange. On the second floor both the wall frieze and ceiling were the same moderate orange of the first floor ceiling; suggesting that this color was used continuously up the open stair well. For these colors see page 9 of 17 and what is labeled as second decorative treatment for ENTRANCE VESTIBULE and MAIN HALLWAY & STAIRS. As there was a strong soil line on the original varnish treatment in the entrance vestibule, this third decorative treatment is the first subsequent treatment to occur in that space.

This addendum revises the numerical sequence for only the entrance vestibule and main hallway & stair, on page 9 of 17, from second to third decorative scheme. The numerical sequence for the living room, dining room and second floor bedrooms remains unchanged.

SECOND DECORATIVE TREATMENT

ENTRANCE VESTIBULE

The ceiling and wall frieze area are treated the same and are the same color of calcimine as used on the walls of the main hallway.

MAIN HALLWAY & STAIRS - FIRST, SECOND AND THIRD FLOORS

The full wall area and wall frieze area are one color, the ceiling is a different color. The treatment is calcimine.

WALL

brownish orange

MUNSELL $\frac{3.75 \text{ YR}}{5/6}$ 

sample submitted is
Pratt & Lambert 0224M

CEILING

moderate orange

MUNSELL $\frac{5 \text{ YR}}{6/6}$ 

sample submitted is
Munsell

LIVING ROOM

The full wall area and wall frieze area are one color, the ceiling is a different color. The treatment is calcimine.

WALL

moderate yellowish brown

MUNSELL $\frac{8.75 \text{ YR}}{4.5/4}$ 

sample submitted is
Plochere 179

CEILING

pale orange yellow

MUNSELL $\frac{7.5 \text{ YR}}{7.5/4}$ 

sample submitted is
Plochere 222

SECOND DECORATIVE TREATMENT

DINING ROOM

The full wall area and wall frieze area are one color, the ceiling is a different color. The treatment is calcimine.

WALL

light olive brown

MUNSELL $\frac{2.5 Y}{5.75/4}$



sample submitted is
Munsell 6/4; actual color
is slightly darker

CEILING

brownish gray

MUNSELL $\frac{3.75 Y}{6.25/3}$



sample submitted is
Plochere 140

SUBSEQUENT DECORATIVE TREATMENT

2ND FLOOR - BEDROOMS

WALLS

These colors are a calcimine layer, the earliest decorative treatment to survive on the wall surfaces. It cannot be determined if this is an original finish or from some other early period. The conditions in which the south bedroom color was found does indicate that this color pre dates 1927 alterations.

NORTH BEDROOM

moderate yellowish pink

MUNSELL $\frac{5 \text{ YR}}{7/5}$ 

sample submitted is
Plochere 221

SOUTH BEDROOM

light yellowish brown

MUNSELL $\frac{8.75 \text{ YR}}{7/4}$ 

sample submitted is
Plochere 181

ENTRANCE VESTIBULE

1. dark orange yellow
2. brownish orange
3. dark brown

sealer

4. dark green
5. yellowish white
6. white
7. white

skim coat of plaster

8. light green
- 9a dark green
- 9b brown glaze - stipple pattern

NOTE: layers 1,2, and 3 are calcimine; layers 4 thru 9b are oil base paints.

HALLWAY & STAIRS - ALL FLOORS

WALLS

1. lt. brownish pink
2. brownish orange
3. brownish orange
4. brownish orange
5. brownish orange

WALL

6. yellowish white
oil paint
- 7a pink
oil paint
- 7b red glaze

CEILING

same as walls
moderate orange
orange
orange
moderate orange

FRIEZE

green
calcimine
yellow
calcimine

CEILING

possibly green
unknown

ca. 1927 alteration

Light sconces in stairwell arches are removed and frieze trim molding is removed.

8. grasscloth white oil base paint

After the grasscloth was removed the wall receives a random sequence of skim coatings and paint layers. The color treatment continued to be the same for all floors.

9. yellowish white white
10. dary yellow white
11. graybrown white
12. pink white
13. pale grayish pink white
14. grayish yellow white
15. yellow & brown stripe white
16. vinyl wall covering - 1st. fl.

LIVING ROOM

WALLS

1. lt. brownish pink
2. moderate yellowish brown
3. moderate yellowish brown
4. moderate yellowish brown

Above layers are calcimine.

CEILING

1. same as walls
2. pale orange yellow
3. lt. yellowish brown
4. lt. grayish brown

Above layers are calcimine & were under ceiling light fixture canopy.

Remaining sequences on wall and ceiling cannot be correlated to each other.

----skim coat----

5. dark yellow green
6. paper
7. dark blue green

----skim coat----

8. dark yellow brown

----skim coat ---

9. fragment of red and silver wallpaper found behind trim
10. fragment of red fabric found behind trim
11. vinyl wall covering

5. yellowish white

6. pale yellow

7. white

8. yellow

9. white

sealer & line of separation

10. thru 16 seven layers of white

Above layers are calcimine & were under existing drywall.

17. white

18. yellow

19. white

20. white

DINING ROOM

WALLS

1. lt. brownish pink
2. lt. olive brown
3. lt. olive brown
4. dk. grayish yellow
5. lt. olive
6. white - skim coat
7. white - skim coat

ca. 1927 alteration

8. moderate reddish brown

Oil paint, is first layer on closed south window

9. paper fragments
10. white - skim coat
11. white - skim coat
12. wallpaper

CEILING

1. same as walls

2. brownish gray

3. lt. pink

4. bright orange

5. bright yellow

6. pinkish white

7. pinkish white

8. white

drywall
white

SECOND FLOOR - NORTH BEDROOM

WALL

1. size - pale yellow
2. moderate yellowish pink - calc.
3. yellowish white - oil paint
4. yellowish white - oil paint
5. light gray
6. light pinkish brown
7. paper
8. gray
9. paper

CEILING

1. same as walls
2. glue or size, orange
3. pinkish white
4. sealer
5. white
6. sealer
7. light pinkish gray
8. pale pink
9. light pinkish gray
10. light gray
11. white - skim coat?
12. yellowish white
13. white
14. thick textured skim coat
15. pale pinkish brown

WOODWORK

1. Varnish

NOTE: All woodwork has recently been stripped of paint.

CHARNLEY HOUSE - SEQUENCE OF FINISHES
SECOND FLOOR - SOUTH BEDROOM

PAGE 15 of 17

WALL

1. size - grayish greenish yellow
2. light yellowish brown - calc.
3. yellowish white - oil paint
4. yellowish white - oil paint
5. yellowish white - oil paint
6. wallpaper - white pearlescent
embossed pattern

NOTE: Above finishes were
found under wood trim of
plumbing access door added
on east wall ca 1927.

Also same sequence was under
the electric buzzer button
on south wall, suggesting
buzzer is also ca 1927.

7. pinkish tan
8. glue
9. light gray
10. white - skim coat
11. wallpaper

WOODWORK

- 1a prime medium pinkish brown
- 1b finish moderate yellowish brown

Finish occurs under
door knob back plate.

2. moderate yellowish brown
3. white - first layer on
fireplace mantel
4. white
5. white
6. white
7. pinkish white
8. pinkish white
9. pinkish white
10. varnish
11. pinkish white
12. yellowish white
13. light gray
14. white
15. white
16. white
17. white
18. white
19. yellowish white

CEILING

1. same as walls
2. glue or size, very thick
3. white
4. pinkish white
5. glue
6. white
7. pinkish white
8. grayish white
9. grayish white
10. white
11. pinkish white
12. white
13. white
- drywall
14. white

FIREPLACE MANTEL

17. light brown
18. red brown
19. dark brown

CHARNLEY HOUSE - SEQUENCE OF FINISHES
THIRD FLOOR - NORTH BEDROOM

PAGE 16 of 17

WALLS & COVE	$\frac{1}{2}$ round ceiling molding COVE SIDE	CEILING
1. grayish yellow	1. same	
	2. white	
	3. pink	
	4. varnish	
	5. white	
	6. bluish white	
	7. bluish white	
	8. pinkish white	
	9. gray	
	10. tan	
varnish	soil line	
<hr/>		
ca. 1927 alteration		
2. bright blue	11. same	
Calcimine, is first wall color on new plaster around new windows and is only finish existing under elec. switch plate.		
3. lt. pink	missing	
4. lt. green	12. same	
is first oil paint		
5. lt. green	13. same	new ceiling
6. gray	14. same	varnish primer
7. blue	15. white	
8. gray	16. white	pinkish white
9. yellow	17. same	pinkish white
10. lt. yellow	missing	white
11. white	18. white	pinkish white
12. white	19. white	skim coat
13. tan	20. white	white
14. missing(silver cove)	21. silver	silver
15. white	22. white	white
16. white	23. white	white

THIRD FLOOR NORTH BEDROOM & BATH

WOODWORK - BEDROOM

- 1a prime white
- 1b base lt. orange brown
- 1c finish moderate orange

Finish occurs under
door knob back plate.

SOIL LINE

- 2. white - first layer on
fireplace mantel
- 3. yellowish white
- 4. white - first layer on
fireplace tile

-----line of seperation-----

- 5. white
- 6. pink

---line of seperation---
on fireplace mantel
and tile

- 7. yellow

WOODWORK - BATH

- 1a prime white
- 1b base lt. orange brown
- 1c finish lt. yellowish brown

SOIL LINE

- 2. yellowish white
- SOIL LINE
- 3a yellowish white
- 3b yellowish varnish glaze

- 4. pale yellow
- 5. yellowish white

----line of seperation----

- 6. white - double layer

- 7. pale yellow

ca. 1927 alteration

- 8. bluish pink - first layer on
new windows
- 9. pink
- 10. yellowish pink

SOIL LINE

- 11. pale blue
- 12. yellowish white
- 13. pinkish white
- 14. pinkish white
- 15. bright yellow
- 16. gray
- 17. pinkish white
- 18. pinkish white

Bathroom is altered, subsequent
paint treatments not documented.

INVESTIGATION OF INTERIOR FINISHES
THE CHARNLEY HOUSE ca. 1891
1365 ASTOR ST. CHICAGO, ILLINOIS

ADDENDUM #2

November 20, 1987

ORIGINAL DECORATIVE TREATMENT SERVICE AREAS

page 18

No original finishes survive in the remodeled second floor bath rooms and third floor servants quarters.

BASEMENT & SERVICE STAIRS - FIRST, SECOND AND THIRD FLOORS

WALLS AND CEILINGS are all the same. Treatment was a satin gloss oil base paint.

light yellowish brown

Munsell $\frac{10 \text{ YR}}{6.75/5}$



sample subitted is
Devoe 2D56C Stitchery

WOODWORK Treatment is a satin gloss oil base paint.

light yellowish brown

Munsell $\frac{10 \text{ YR}}{7/4}$



sample submitted is
Munsell

BASEMENT KITCHEN AND PANTRY

CEILINGS are the same. Treatment is a satin gloss oil base paint.

yellowish gray

Munsell $\frac{2.5 \text{ Y}}{8/2}$



sample submitted is
Munsell

ORIGINAL DECORATIVE TREATMENT SERVICE AREAS

BASEMENT KITCHEN AND PANTRY CONTINUED

KITCHEN WALLS Treatment is a satin gloss oil base paint.

grayish yellow

Munsell $\frac{2.5 Y}{7.5/3}$



sample submitted is
Benjamin Moore CB-3

PANTRY WALLS Treatment is unfinished plaster walls of a integral color and is a flat finish.

light bluish gray

Munsell $\frac{10 B}{7/1}$



sample submitted is
Munsell

WOODWORK Baseboards, jambs, doors and sash were painted same as in the basement hallway. Pantry dumb waiter was painted a oil paint base coat of an ivory color and finished with a varnish but was not wood grained. This may be an intication of the finish used on other cabinetry that may originally have been constructed in the kicthen or pantry.

FIRST FLOOR PANTRY

CEILING The original ceiling had been removed.

WOODWORK AND CABINETS Treatment is low gloss finish oil base paint. Is same finish as used in the bedrooms.

strong brown

Munsell $\frac{5 YR}{4/6}$



sample submitted is
Munsell

Inspection Report

Provided by:



Inspector: Pasquale Giovane
538 Busse Hwy
Park Ridge, IL
(800) 737-2299
www.priorityenergy.com

Property Address:

1365 N Astor
Chicago, IL



Report Information

Client Information

Client Name: Charnley-Persky House

Client Phone:

Property Information

Approximate Year Built: 1892

Square Footage: 6416

Building Orientation: South

Inspection Information

Inspection Date: 07/22/2016

Inspection Time: 9:00 AM

Scope of work

Priority Energy was asked to assess the buildings overall air leakage. Priority Energy was asked to perform:

1. A blower door testing to determine building envelope leakage and an
2. IR scan to identify the areas of leakage in the building

2 Building air leakage testing

Blower door testing:

A large fan is used to depressurize the house to create a pressure difference with the outside. The fan is matched and calibrated with a digital manometer which is used to quantify the amount of air flow it takes to depressurize the house to a standardized pressure. Residential homes utilize a pressure of 50 pascals (which simulates a 20 mph wind on the house). The result is quantified in cubic feet per minute (CFM) of airflow at 50 pascals of pressure (this is the measurement of air through holes in the building envelope), better known as CFM50. The CFM50 is then converted into an air change rate per hour @ 50 pascals (ACH50) using the homes volume ($\text{CFM50} \times 60 / \text{volume}$).

We performed our blower door test both with the fireplace dampers open, and with them closed, which yielded the following results:

- The homes CFM50 was measured at 6,046 CFM50
- The homes volume was measured at 61,410 Cu. Ft.
- $\text{ACH50} = 6046 \times 60 / 61410 = 5.9 \text{ ACH50}$

Building Air leakage Standard:

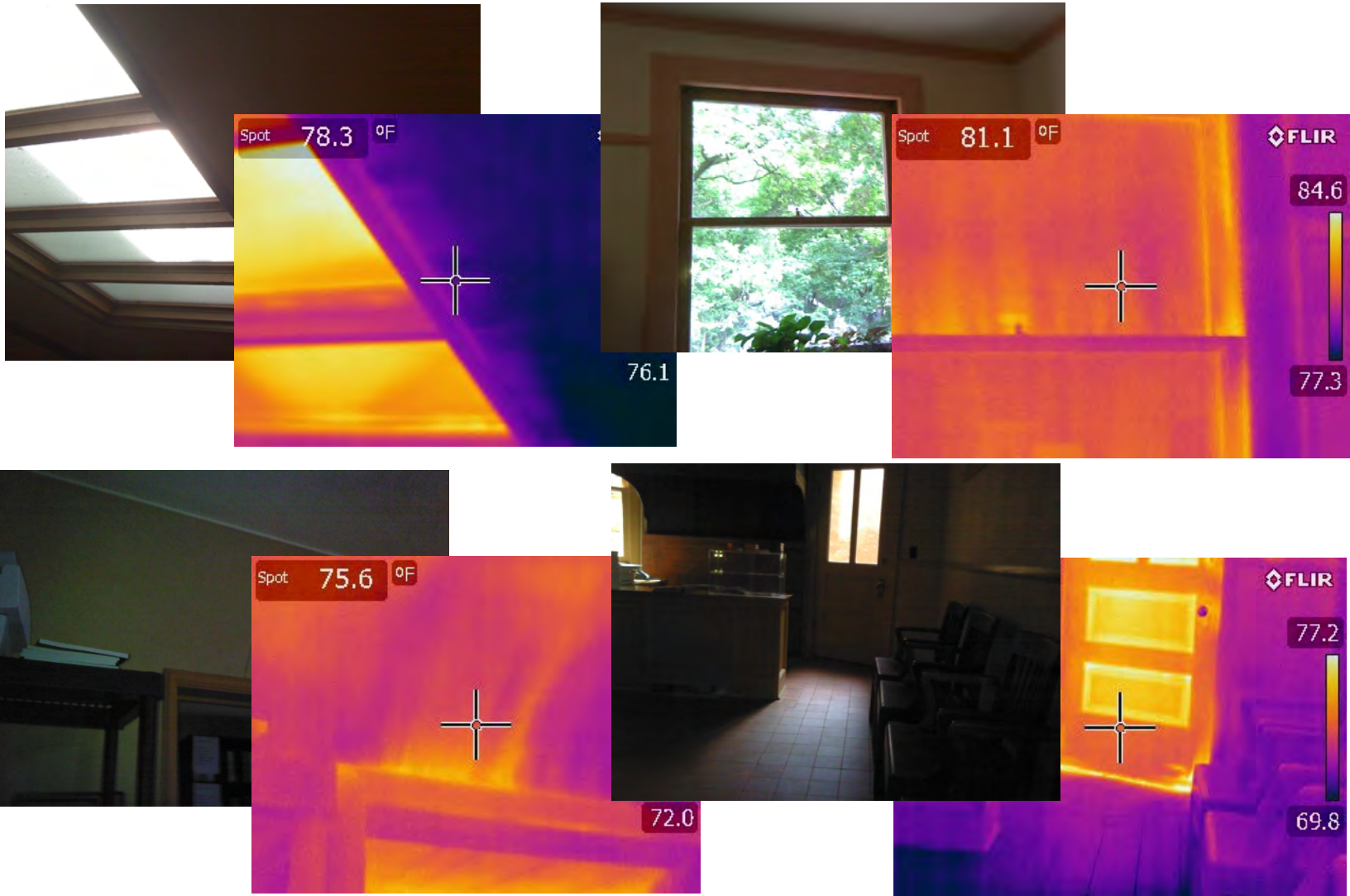
In order to quantify if the buildings ACH50 is good or bad we rely on industry and State of Illinois accepted building/energy codes. Building Air leakage testing was done in accordance to section R402.4.1.2 of the 2015 IECC and ASTM E 779:

- Building unit shall be tested and verified as having an air leakage rate not exceeding 3 air changes per hour @ 50 pascals (ACH50) in climate zones 3 through 8. (Chicago is climate zone 5)
- Illinois adopted an amended code, which states building leakage should not exceed 5 ACH50.

At 5.9 ACH50, the home exceeds recommended leakage rate and targeted air-sealing is recommended.

Findings and Recommendations:

We have determined that the building envelope has minimal leakage and is built to a leakage rate just above today's standards. This being said there were some areas in the building envelope mainly the attic that were found to have some defect. These pictures show areas of infiltration during the blower door test



We also found evidence of the air ducts leaking into the building attic and cavities. Excessive duct leakage can severely impact the performance of the buildings HVAC systems. Duct leakage can result in a loss of total system capacity; and potentially causing heating, cooling, humidity and dust issues. These pictures show evidence of cold air leaking into wall cavities where ducts are located and warm attic air entering through registers.

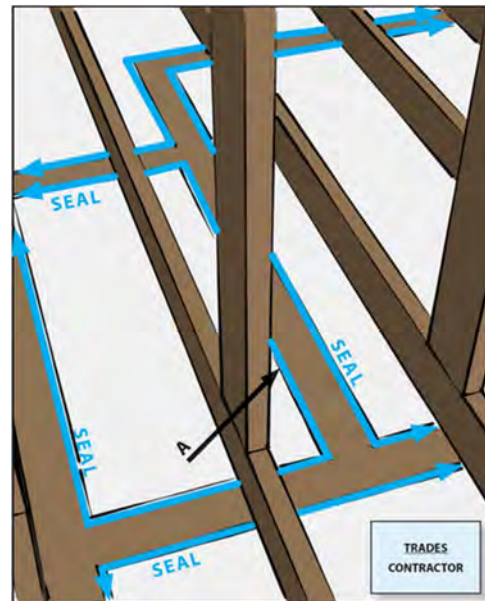
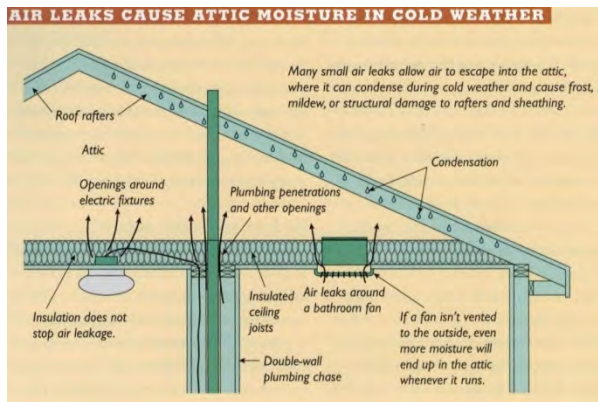


In addition to air leakage we also found evidence of water leakage in the top floor ceiling. . These pictures show evidence of cold water spots into the top floor ceiling.



Recommended Repairs:

1. To improve efficiency, comfort and indoor air quality lost due to duct leakage we recommend Aeroseal. Aeroseal sealant will get injected into the duct system and seal all leaks 5/8" and smaller. Efficiency and comfort will be gained by sealing leaks in supply duct allowing more air to reach intended areas and dust will be reduced from sealing return duct stopping them from pulling dust from attics and floor and wall cavities.
2. Seal air leakage into attic by foaming top of all partitions, electrical boxes, duct boots and any soffit. After air-sealing is complete install R-49 of blown cellulose.



IR_5257.jpg 7/22/2016 9:19:21 AM



DC_5258.jpg 7/22/2016 9:19:21 AM



IR_5259.jpg 7/22/2016 9:19:48 AM



DC_5260.jpg 7/22/2016 9:19:48 AM



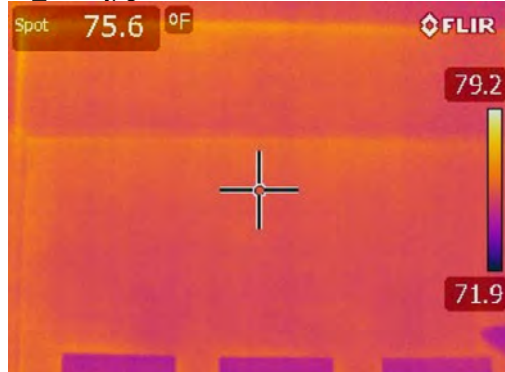
IR_5261.jpg 7/22/2016 9:20:06 AM



DC_5262.jpg 7/22/2016 9:20:06 AM



IR_5263.jpg 7/22/2016 9:20:26 AM



DC_5264.jpg 7/22/2016 9:20:26 AM



IR_5265.jpg 7/22/2016 9:20:58 AM



DC_5266.jpg 7/22/2016 9:20:58 AM



IR_5267.jpg 7/22/2016 9:21:04 AM



DC_5268.jpg 7/22/2016 9:21:04 AM



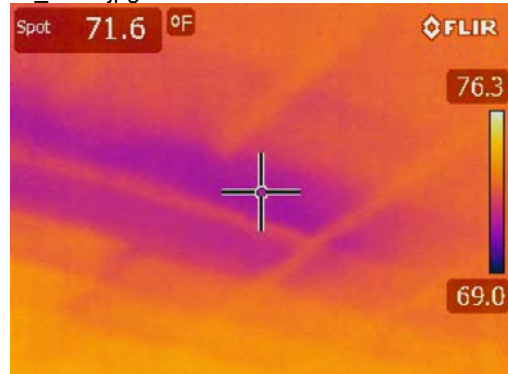
IR_5269.jpg 7/22/2016 9:21:19 AM



DC_5270.jpg 7/22/2016 9:21:19 AM



IR_5271.jpg 7/22/2016 9:22:25 AM



DC_5272.jpg 7/22/2016 9:22:25 AM



IR_5273.jpg 7/22/2016 9:23:46 AM



DC_5274.jpg 7/22/2016 9:23:46 AM



IR_5275.jpg 7/22/2016 9:25:16 AM



DC_5276.jpg 7/22/2016 9:25:16 AM



IR_5277.jpg 7/22/2016 9:25:24 AM



DC_5278.jpg 7/22/2016 9:25:24 AM



IR_5279.jpg 7/22/2016 9:25:34 AM



DC_5280.jpg 7/22/2016 9:25:34 AM



IR_5281.jpg 7/22/2016 9:25:42 AM



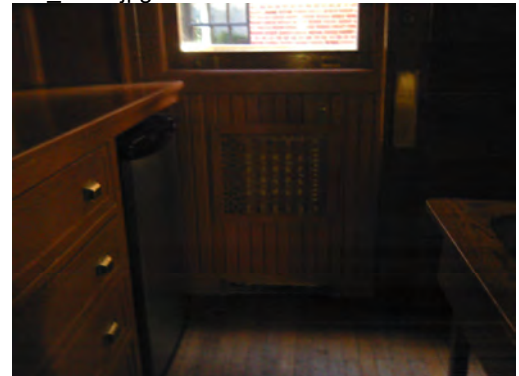
DC_5282.jpg 7/22/2016 9:25:42 AM



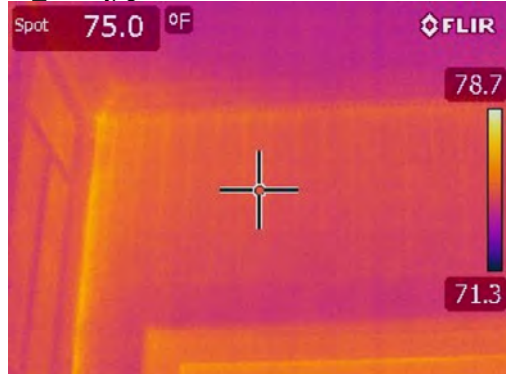
IR_5283.jpg 7/22/2016 9:26:05 AM



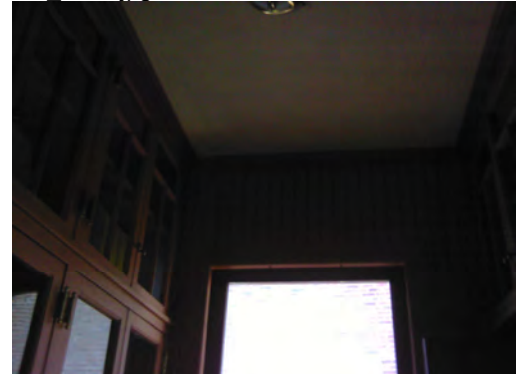
DC_5284.jpg 7/22/2016 9:26:05 AM



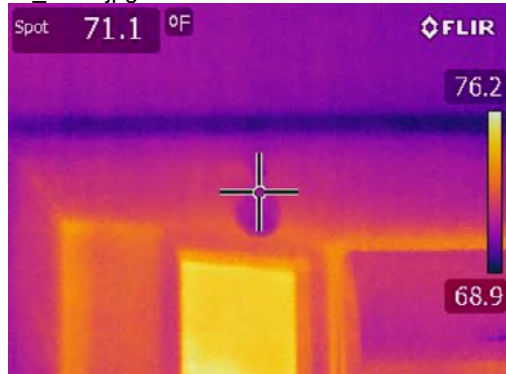
IR_5285.jpg 7/22/2016 9:26:15 AM



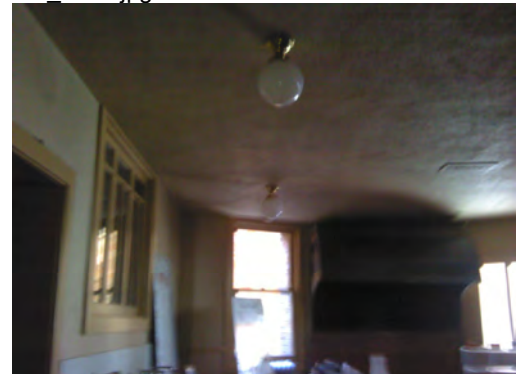
DC_5286.jpg 7/22/2016 9:26:15 AM



IR_5287.jpg 7/22/2016 9:29:10 AM



DC_5288.jpg 7/22/2016 9:29:10 AM



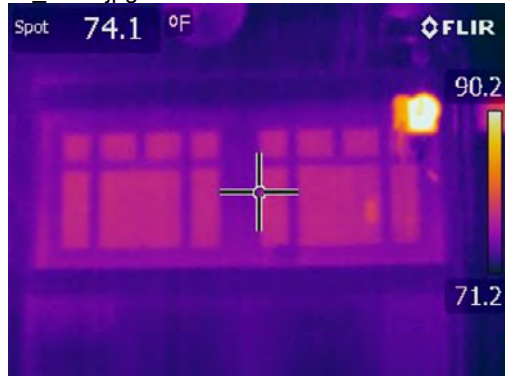
IR_5289.jpg 7/22/2016 9:29:28 AM



DC_5290.jpg 7/22/2016 9:29:28 AM



IR_5291.jpg 7/22/2016 9:29:47 AM



DC_5292.jpg 7/22/2016 9:29:47 AM



IR_5293.jpg 7/22/2016 9:30:07 AM



DC_5294.jpg 7/22/2016 9:30:07 AM



IR_5295.jpg 7/22/2016 9:32:37 AM



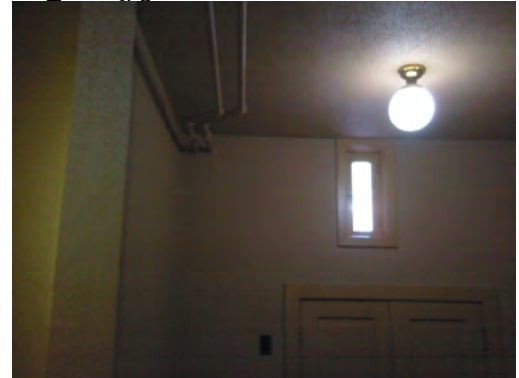
DC_5296.jpg 7/22/2016 9:32:37 AM



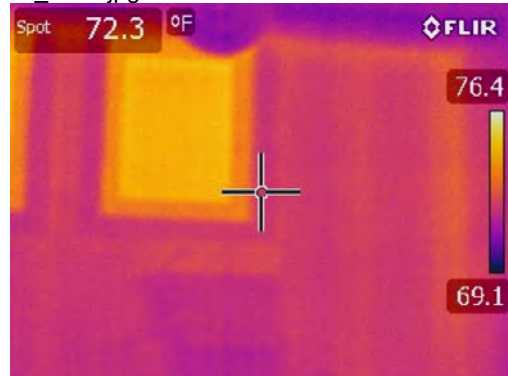
IR_5297.jpg 7/22/2016 9:32:46 AM



DC_5298.jpg 7/22/2016 9:32:46 AM



IR_5299.jpg 7/22/2016 9:32:59 AM



DC_5300.jpg 7/22/2016 9:32:59 AM



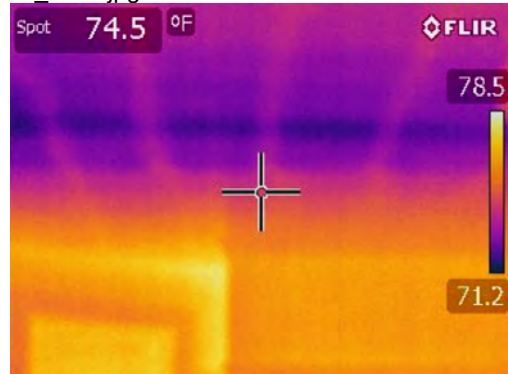
IR_5301.jpg 7/22/2016 9:33:22 AM



DC_5302.jpg 7/22/2016 9:33:22 AM



IR_5303.jpg 7/22/2016 9:34:25 AM



DC_5304.jpg 7/22/2016 9:34:25 AM



IR_5305.jpg 7/22/2016 9:34:34 AM



DC_5306.jpg 7/22/2016 9:34:34 AM



IR_5307.jpg 7/22/2016 9:34:43 AM



DC_5308.jpg 7/22/2016 9:34:43 AM



IR_5309.jpg 7/22/2016 9:34:51 AM



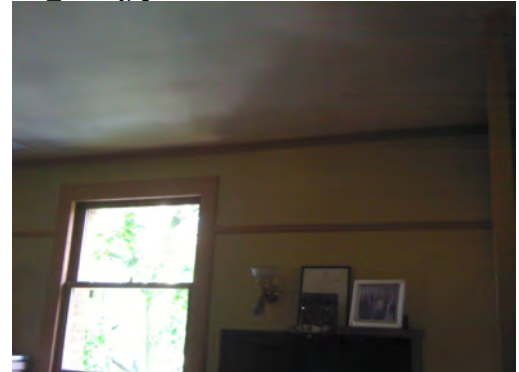
DC_5310.jpg 7/22/2016 9:34:51 AM



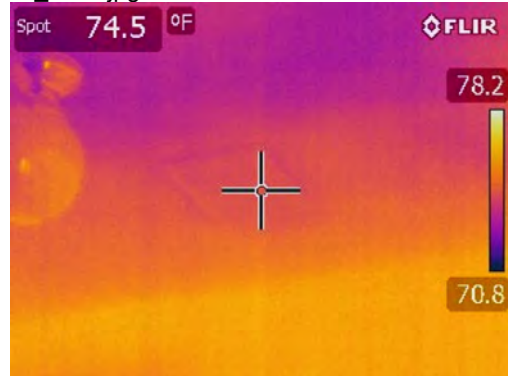
IR_5311.jpg 7/22/2016 9:35:12 AM



DC_5312.jpg 7/22/2016 9:35:12 AM



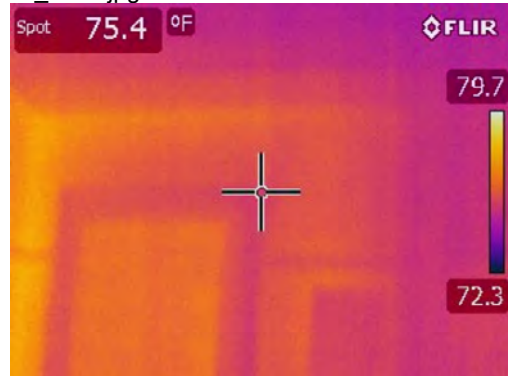
IR_5313.jpg 7/22/2016 9:35:36 AM



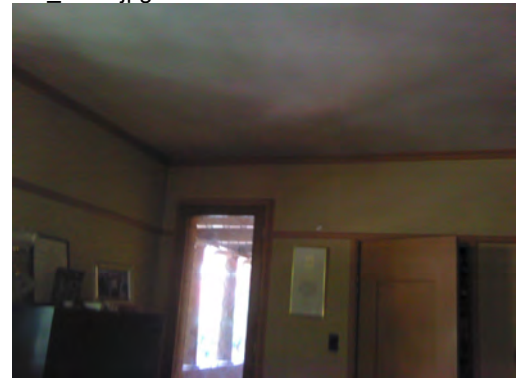
DC_5314.jpg 7/22/2016 9:35:36 AM



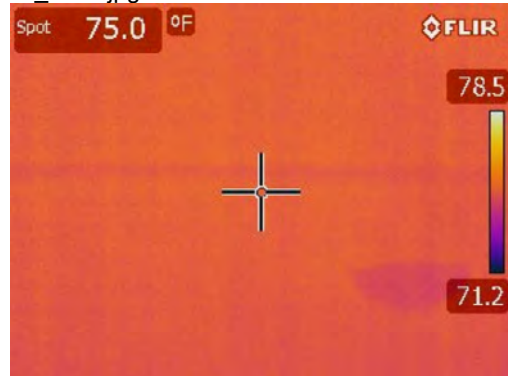
IR_5315.jpg 7/22/2016 9:35:54 AM



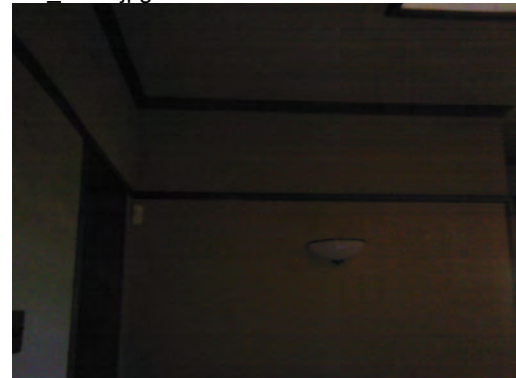
DC_5316.jpg 7/22/2016 9:35:54 AM



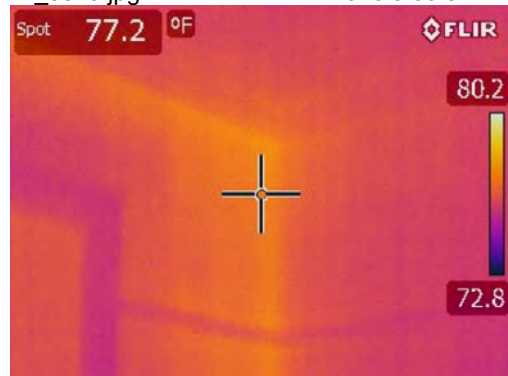
IR_5317.jpg 7/22/2016 9:36:40 AM



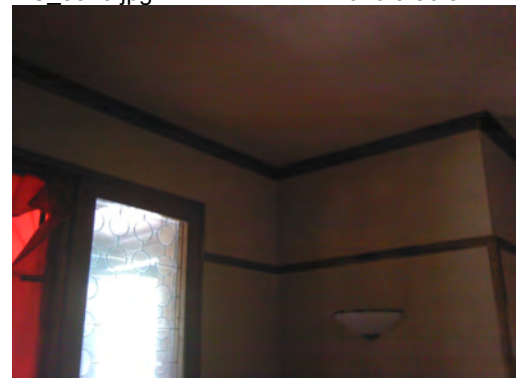
DC_5318.jpg 7/22/2016 9:36:40 AM



IR_5319.jpg 7/22/2016 9:36:57 AM



DC_5320.jpg 7/22/2016 9:36:57 AM



IR_5321.jpg 7/22/2016 9:37:15 AM



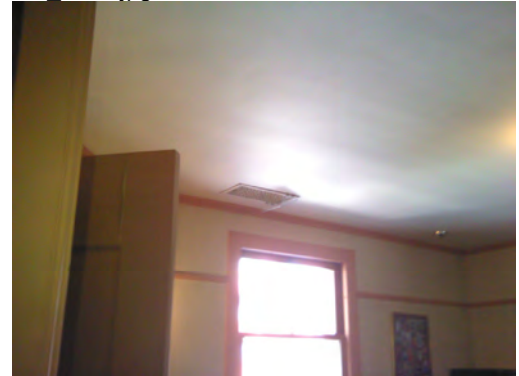
DC_5322.jpg 7/22/2016 9:37:15 AM



IR_5323.jpg 7/22/2016 9:37:31 AM



DC_5324.jpg 7/22/2016 9:37:31 AM



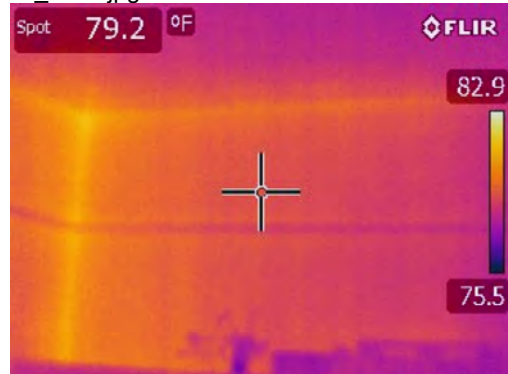
IR_5325.jpg 7/22/2016 9:37:59 AM



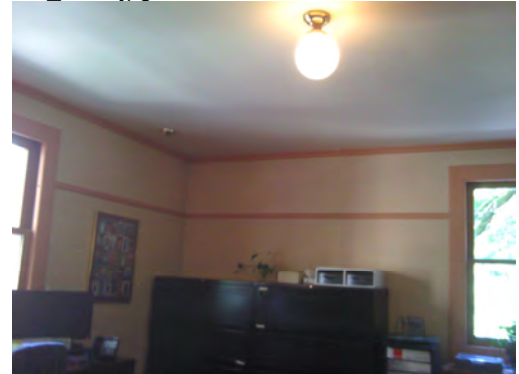
DC_5326.jpg 7/22/2016 9:37:59 AM



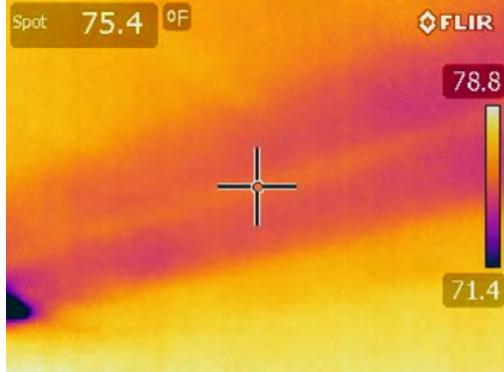
IR_5327.jpg 7/22/2016 9:38:09 AM



DC_5328.jpg 7/22/2016 9:38:09 AM



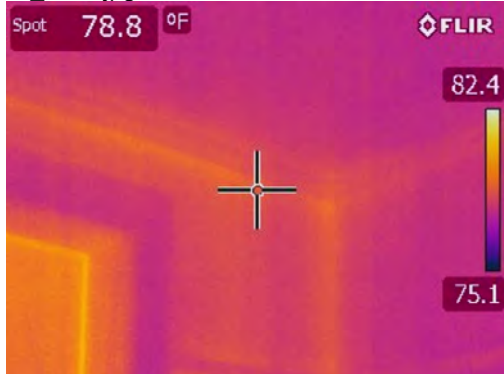
IR_5329.jpg 7/22/2016 9:38:20 AM



DC_5330.jpg 7/22/2016 9:38:20 AM



IR_5331.jpg 7/22/2016 9:38:39 AM



DC_5332.jpg 7/22/2016 9:38:39 AM



IR_5333.jpg 7/22/2016 9:38:54 AM



DC_5334.jpg 7/22/2016 9:38:54 AM



IR_5335.jpg 7/22/2016 9:39:25 AM



DC_5336.jpg 7/22/2016 9:39:25 AM



IR_5337.jpg 7/22/2016 9:39:43 AM



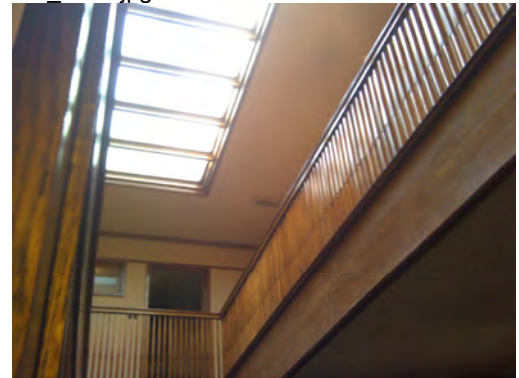
DC_5338.jpg 7/22/2016 9:39:43 AM



IR_5339.jpg 7/22/2016 9:39:59 AM



DC_5340.jpg 7/22/2016 9:39:59 AM



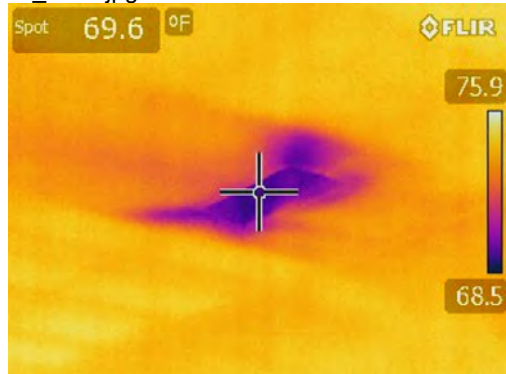
IR_5341.jpg 7/22/2016 9:41:21 AM



DC_5342.jpg 7/22/2016 9:41:21 AM



IR_5343.jpg 7/22/2016 9:43:03 AM



DC_5344.jpg 7/22/2016 9:43:03 AM



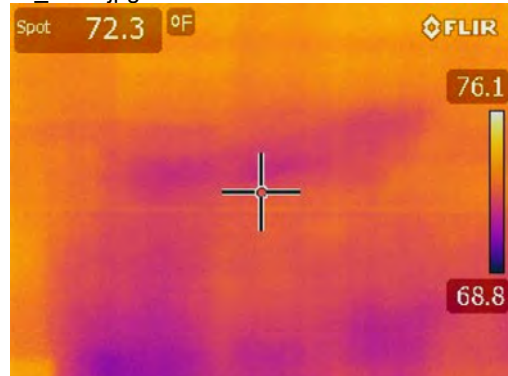
IR_5345.jpg 7/22/2016 9:43:21 AM



DC_5346.jpg 7/22/2016 9:43:21 AM



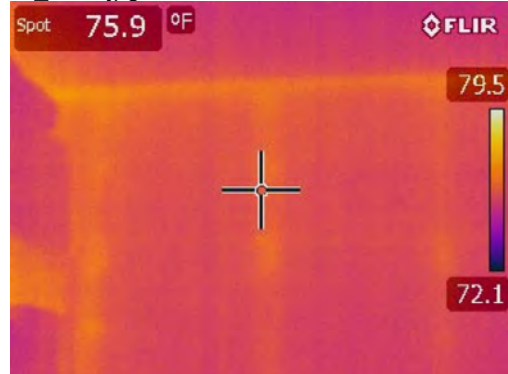
IR_5347.jpg 7/22/2016 9:43:59 AM



DC_5348.jpg 7/22/2016 9:43:59 AM



IR_5349.jpg 7/22/2016 9:44:37 AM



DC_5350.jpg 7/22/2016 9:44:37 AM



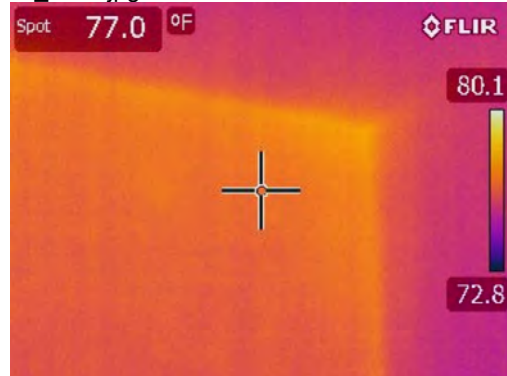
IR_5351.jpg 7/22/2016 9:45:10 AM



DC_5352.jpg 7/22/2016 9:45:10 AM



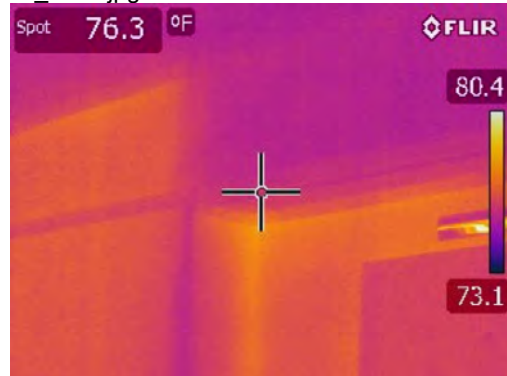
IR_5353.jpg 7/22/2016 9:45:24 AM



DC_5354.jpg 7/22/2016 9:45:24 AM



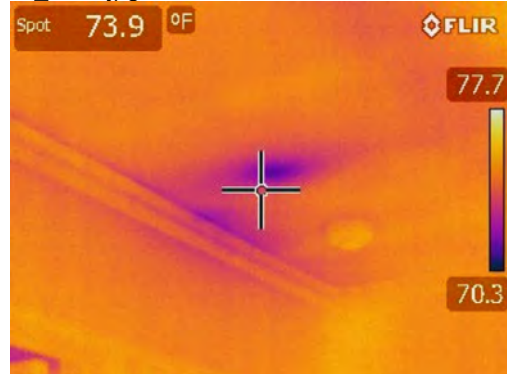
IR_5355.jpg 7/22/2016 9:45:38 AM



DC_5356.jpg 7/22/2016 9:45:38 AM



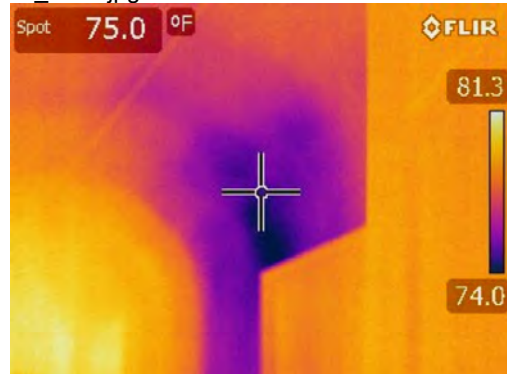
IR_5357.jpg 7/22/2016 9:46:45 AM



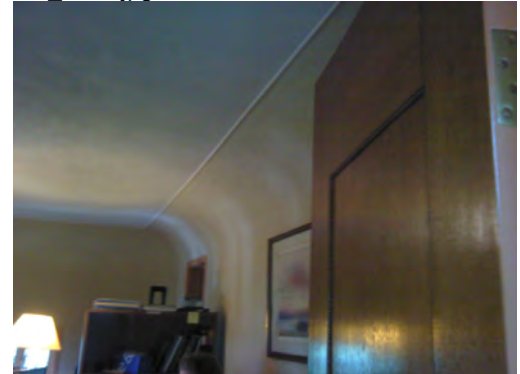
DC_5358.jpg 7/22/2016 9:46:45 AM



IR_5359.jpg 7/22/2016 9:48:18 AM



DC_5360.jpg 7/22/2016 9:48:18 AM



IR_5361.jpg 7/22/2016 9:48:50 AM



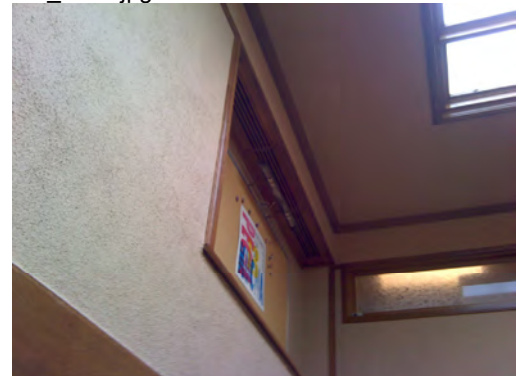
DC_5362.jpg 7/22/2016 9:48:50 AM



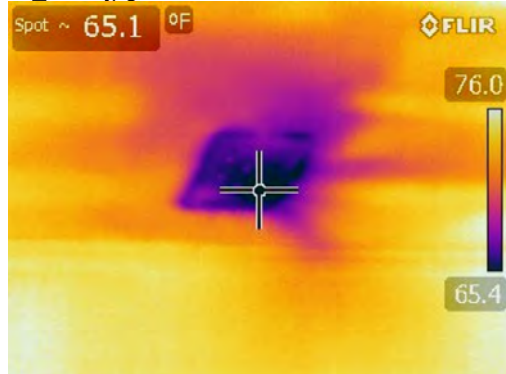
IR_5363.jpg 7/22/2016 9:58:13 AM



DC_5364.jpg 7/22/2016 9:58:13 AM



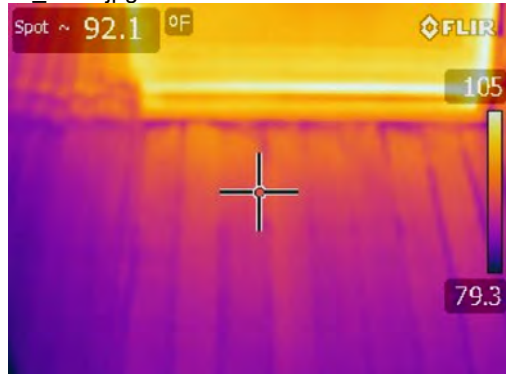
IR_5365.jpg 7/22/2016 9:58:36 AM



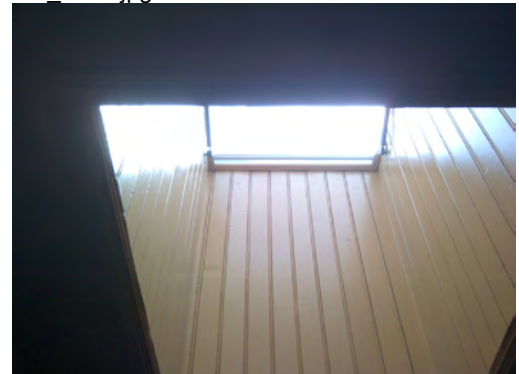
DC_5366.jpg 7/22/2016 9:58:36 AM



IR_5367.jpg 7/22/2016 9:58:49 AM



DC_5368.jpg 7/22/2016 9:58:49 AM



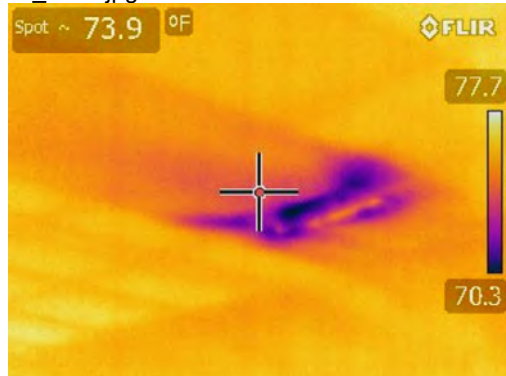
IR_5369.jpg 7/22/2016 9:59:02 AM



DC_5370.jpg 7/22/2016 9:59:02 AM



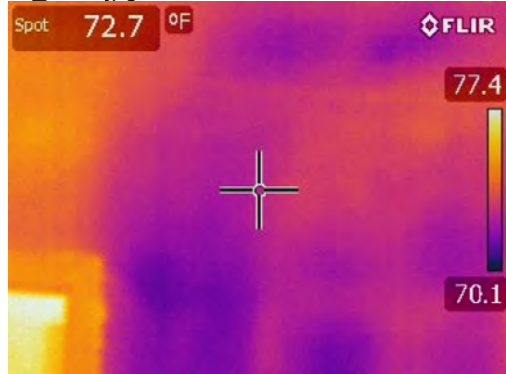
IR_5371.jpg 7/22/2016 9:59:08 AM



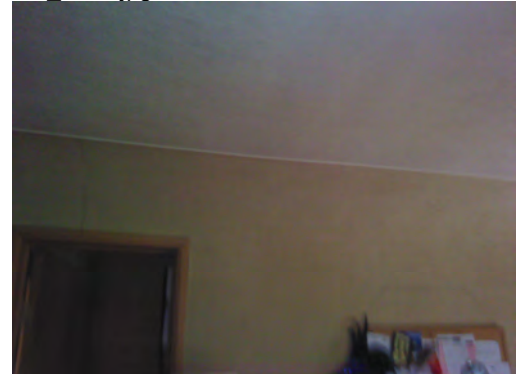
DC_5372.jpg 7/22/2016 9:59:08 AM



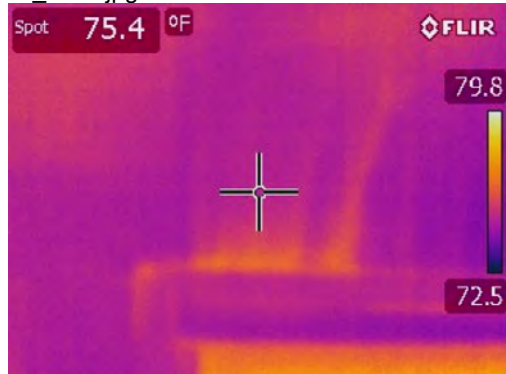
IR_5373.jpg 7/22/2016 9:59:25 AM



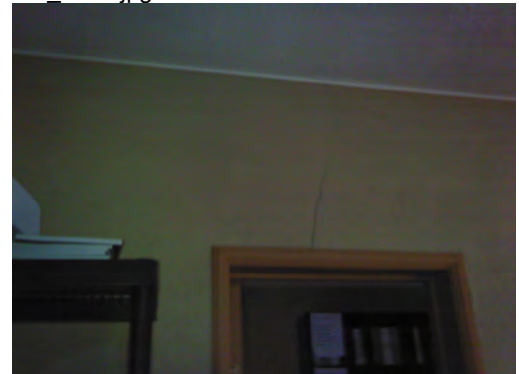
DC_5374.jpg 7/22/2016 9:59:25 AM



IR_5375.jpg 7/22/2016 9:59:50 AM



DC_5376.jpg 7/22/2016 9:59:50 AM



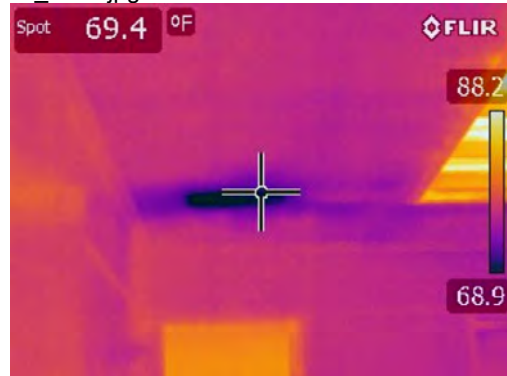
IR_5377.jpg 7/22/2016 10:00:03 AM



DC_5378.jpg 7/22/2016 10:00:03 AM



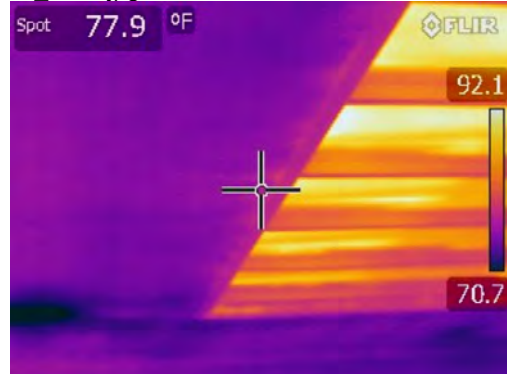
IR_5379.jpg 7/22/2016 10:00:42 AM



DC_5380.jpg 7/22/2016 10:00:42 AM



IR_5381.jpg 7/22/2016 10:00:53 AM



DC_5382.jpg 7/22/2016 10:00:53 AM



IR_5383.jpg 7/22/2016 10:01:12 AM



DC_5384.jpg 7/22/2016 10:01:12 AM



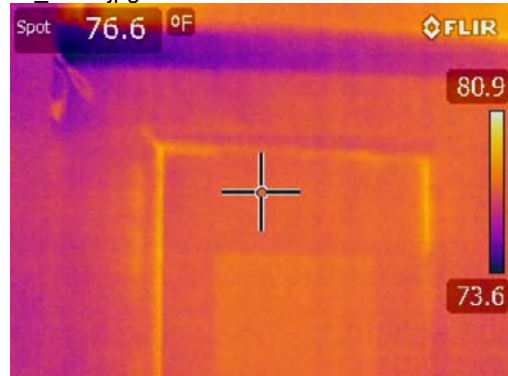
IR_5385.jpg 7/22/2016 10:01:31 AM



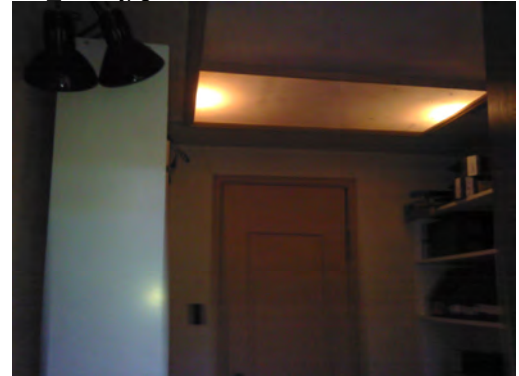
DC_5386.jpg 7/22/2016 10:01:31 AM



IR_5387.jpg 7/22/2016 10:01:36 AM



DC_5388.jpg 7/22/2016 10:01:36 AM



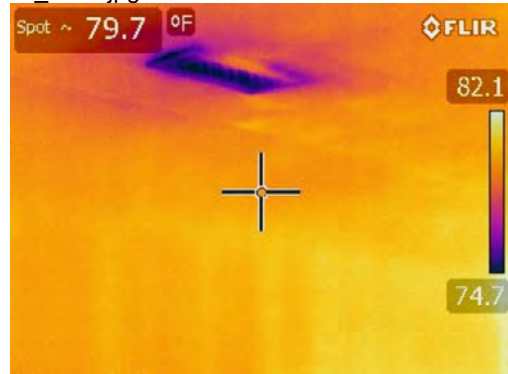
IR_5389.jpg 7/22/2016 10:03:09 AM



DC_5390.jpg 7/22/2016 10:03:09 AM



IR_5391.jpg 7/22/2016 10:03:23 AM



DC_5392.jpg 7/22/2016 10:03:23 AM



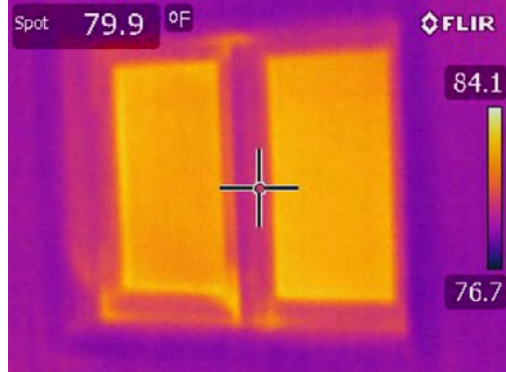
IR_5393.jpg 7/22/2016 10:03:47 AM



DC_5394.jpg 7/22/2016 10:03:47 AM



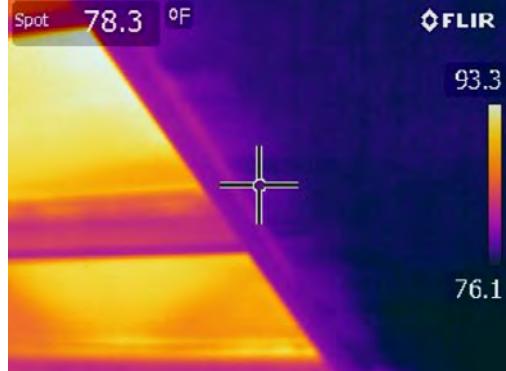
IR_5395.jpg 7/22/2016 10:04:28 AM



DC_5396.jpg 7/22/2016 10:04:28 AM



IR_5397.jpg 7/22/2016 10:04:42 AM



DC_5398.jpg 7/22/2016 10:04:42 AM



IR_5399.jpg 7/22/2016 10:05:19 AM



DC_5400.jpg 7/22/2016 10:05:19 AM



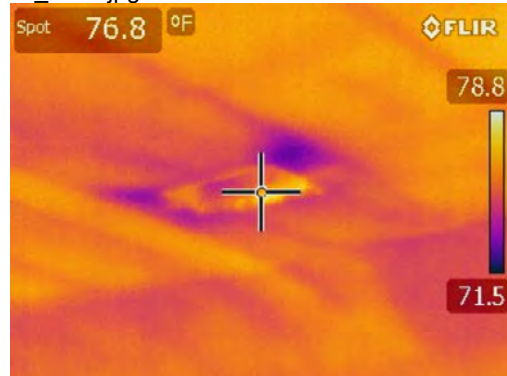
IR_5401.jpg 7/22/2016 10:05:30 AM



DC_5402.jpg 7/22/2016 10:05:30 AM



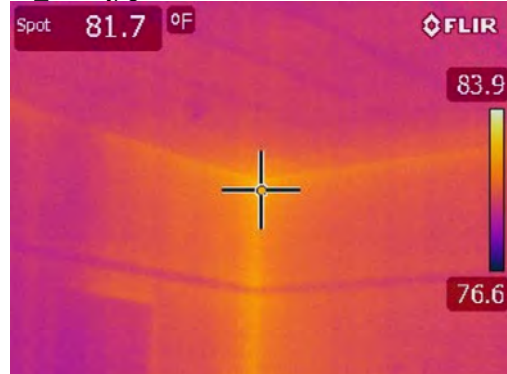
IR_5403.jpg 7/22/2016 10:05:55 AM



DC_5404.jpg 7/22/2016 10:05:55 AM



IR_5405.jpg 7/22/2016 10:06:40 AM



DC_5406.jpg 7/22/2016 10:06:40 AM



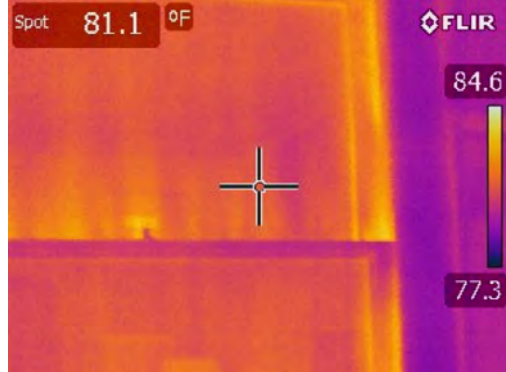
IR_5407.jpg 7/22/2016 10:07:03 AM



DC_5408.jpg 7/22/2016 10:07:03 AM



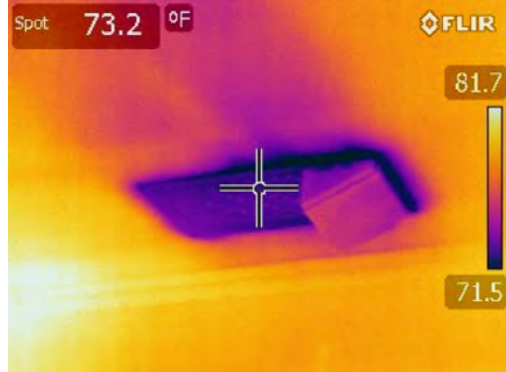
IR_5409.jpg 7/22/2016 10:07:12 AM



DC_5410.jpg 7/22/2016 10:07:12 AM



IR_5411.jpg 7/22/2016 10:07:26 AM



DC_5412.jpg 7/22/2016 10:07:26 AM



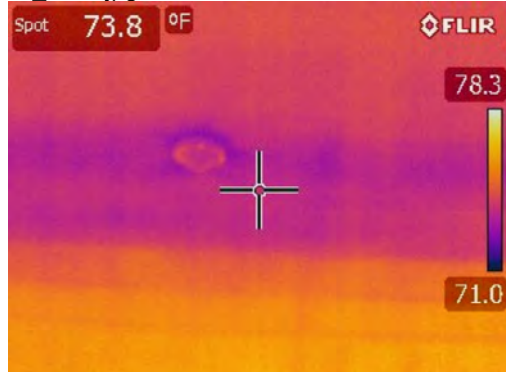
IR_5413.jpg 7/22/2016 10:09:07 AM



DC_5414.jpg 7/22/2016 10:09:07 AM



IR_5415.jpg 7/22/2016 10:10:09 AM



DC_5416.jpg 7/22/2016 10:10:09 AM



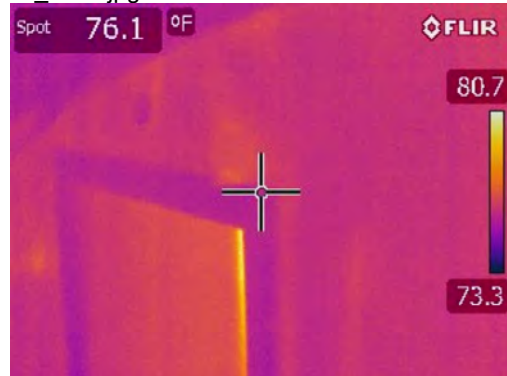
IR_5417.jpg 7/22/2016 10:10:17 AM



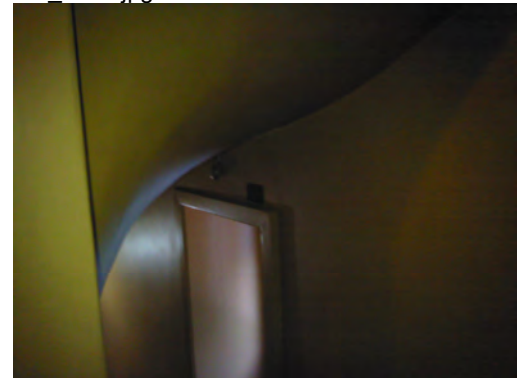
DC_5418.jpg 7/22/2016 10:10:17 AM



IR_5419.jpg 7/22/2016 10:12:26 AM



DC_5420.jpg 7/22/2016 10:12:26 AM



IR_5421.jpg 7/22/2016 10:13:19 AM



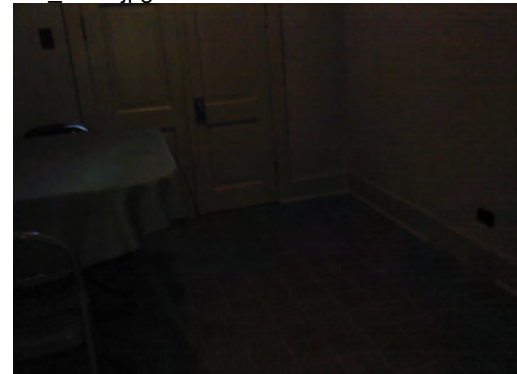
DC_5422.jpg 7/22/2016 10:13:19 AM



IR_5423.jpg 7/22/2016 10:13:57 AM



DC_5424.jpg 7/22/2016 10:13:57 AM



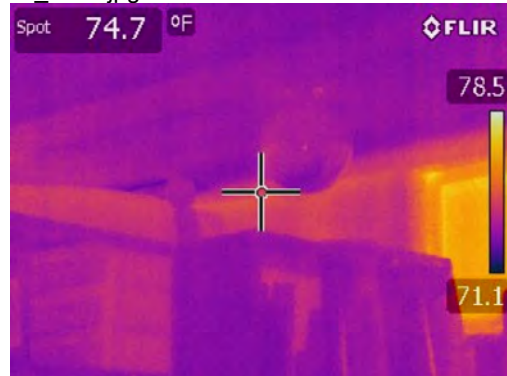
IR_5425.jpg 7/22/2016 10:14:35 AM



DC_5426.jpg 7/22/2016 10:14:35 AM



IR_5427.jpg 7/22/2016 10:14:47 AM



DC_5428.jpg 7/22/2016 10:14:47 AM



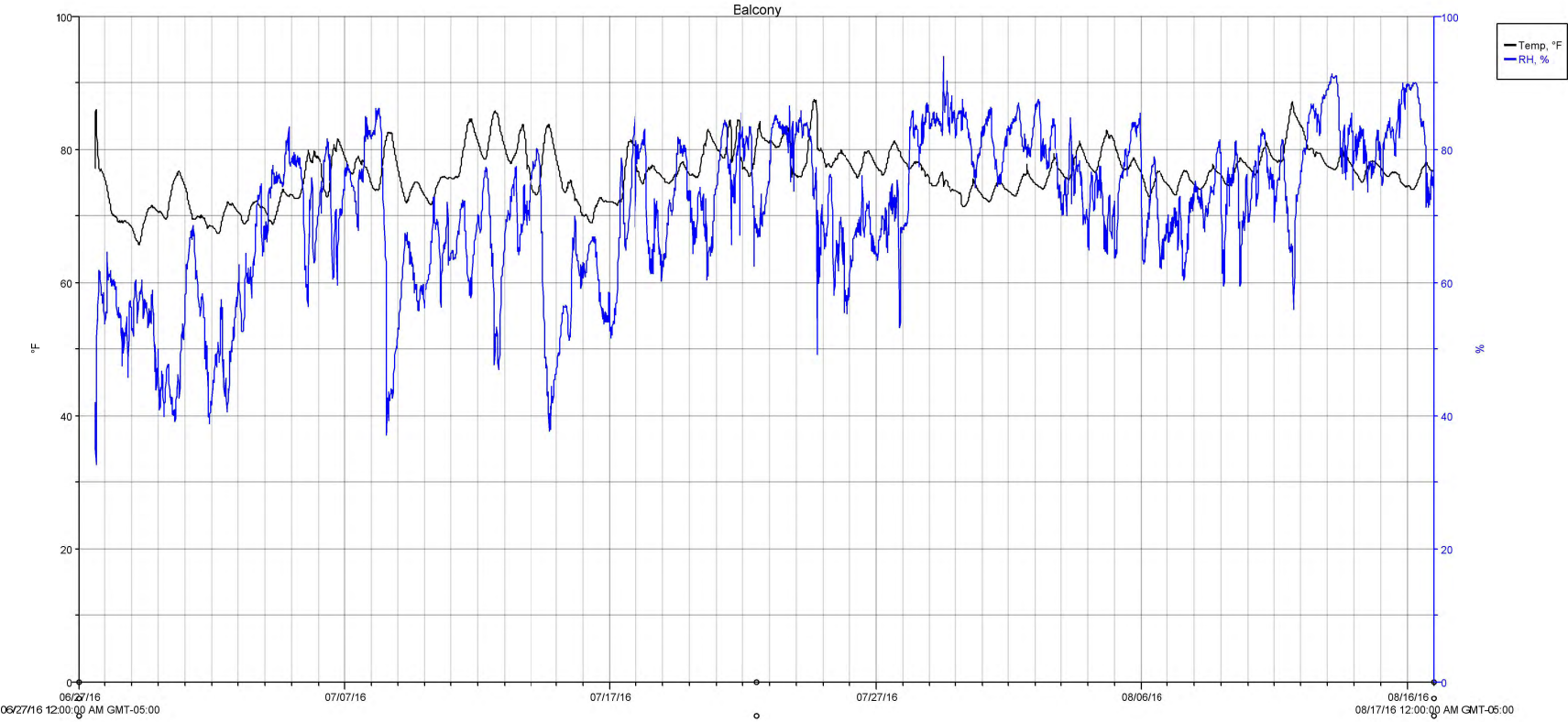
IR_5429.jpg 7/22/2016 10:14:58 AM



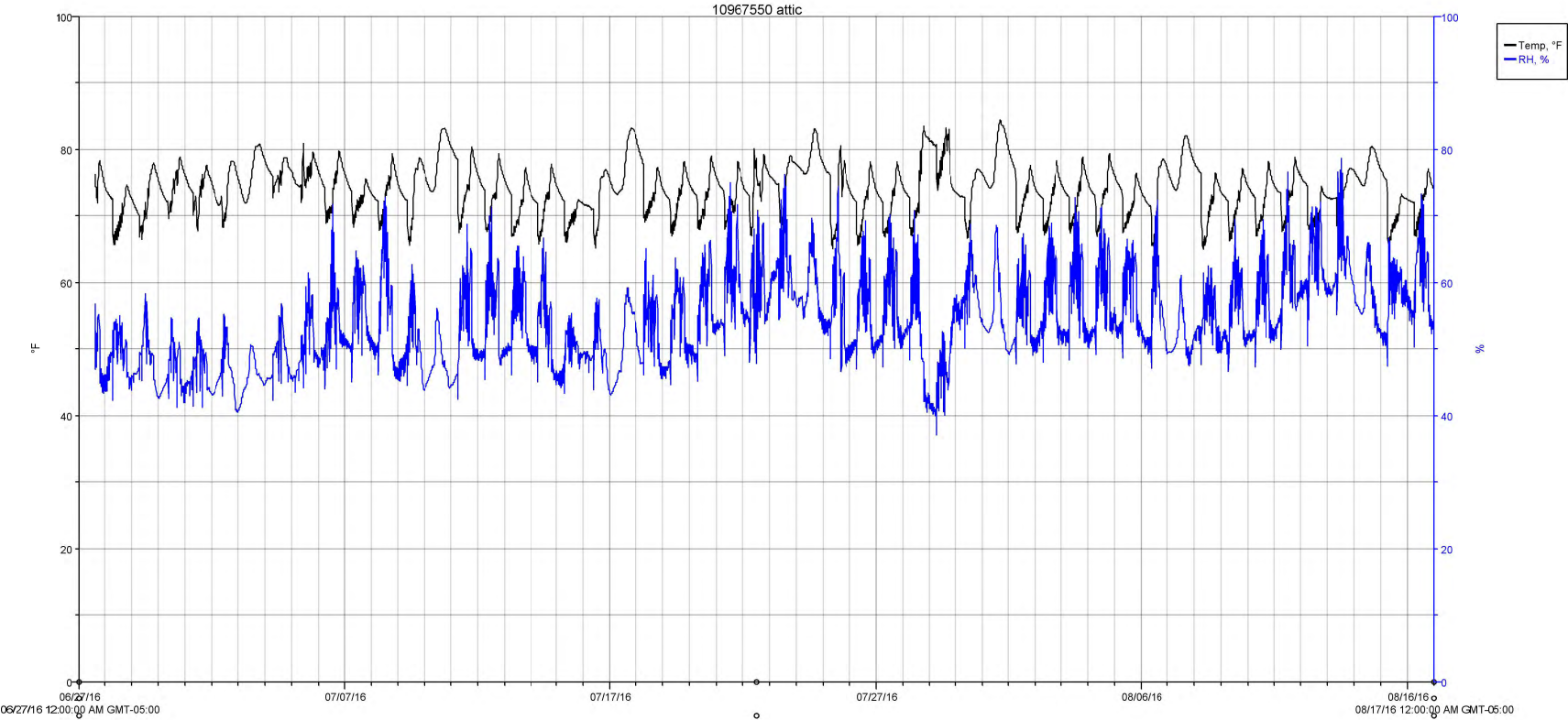
DC_5430.jpg 7/22/2016 10:14:58 AM



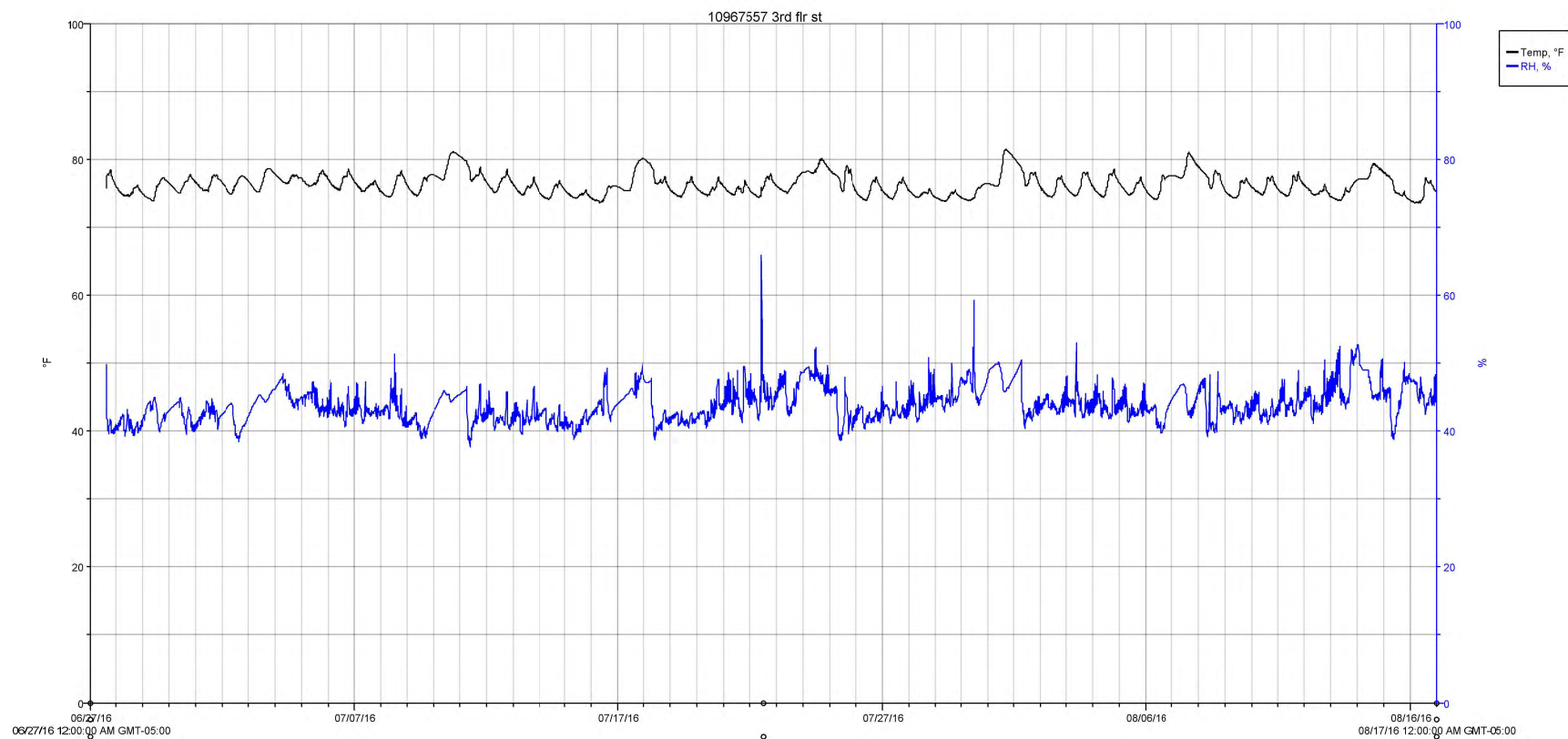
OUTSIDE TEMP & RH - BALCONY



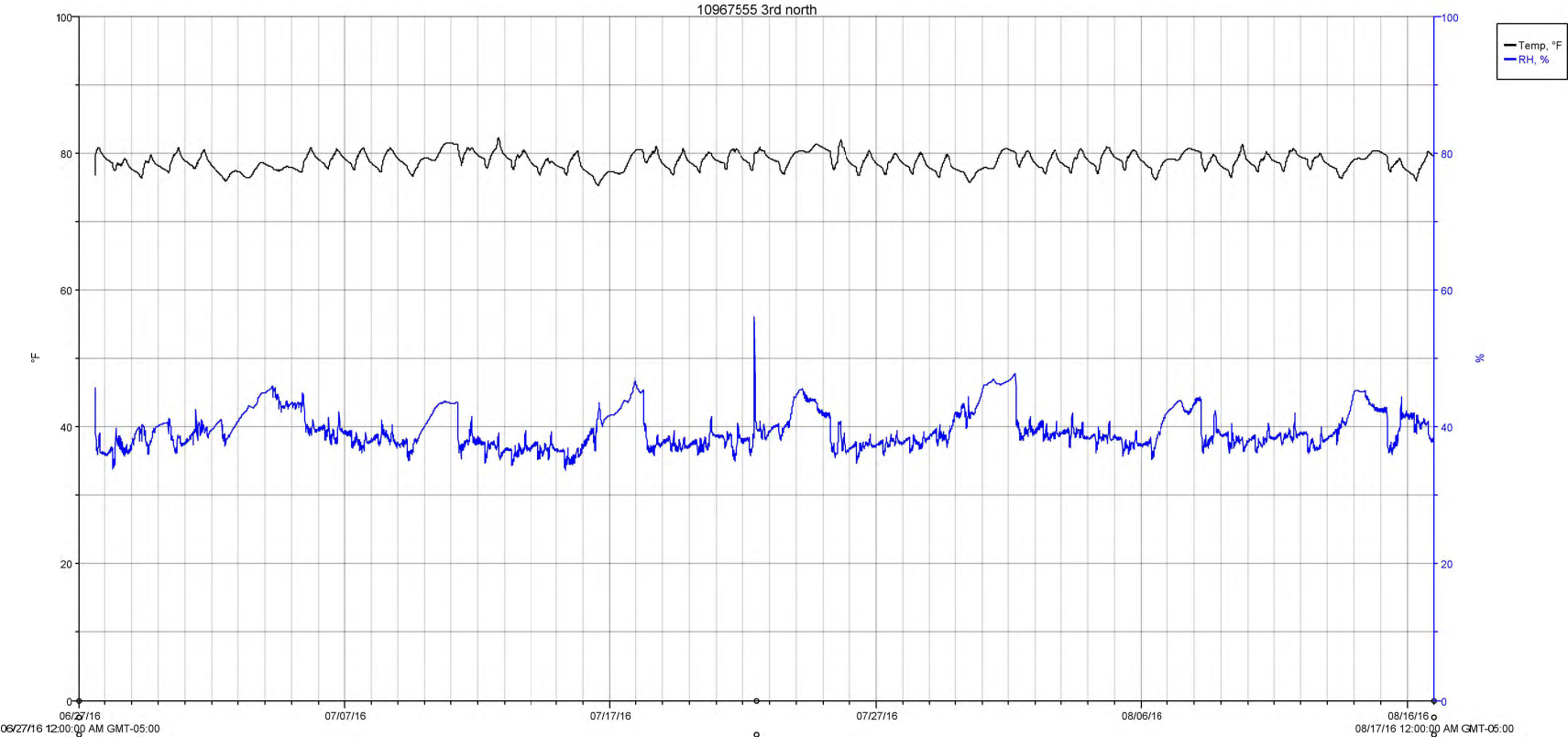
ATIC NEAR EQUIPMENT



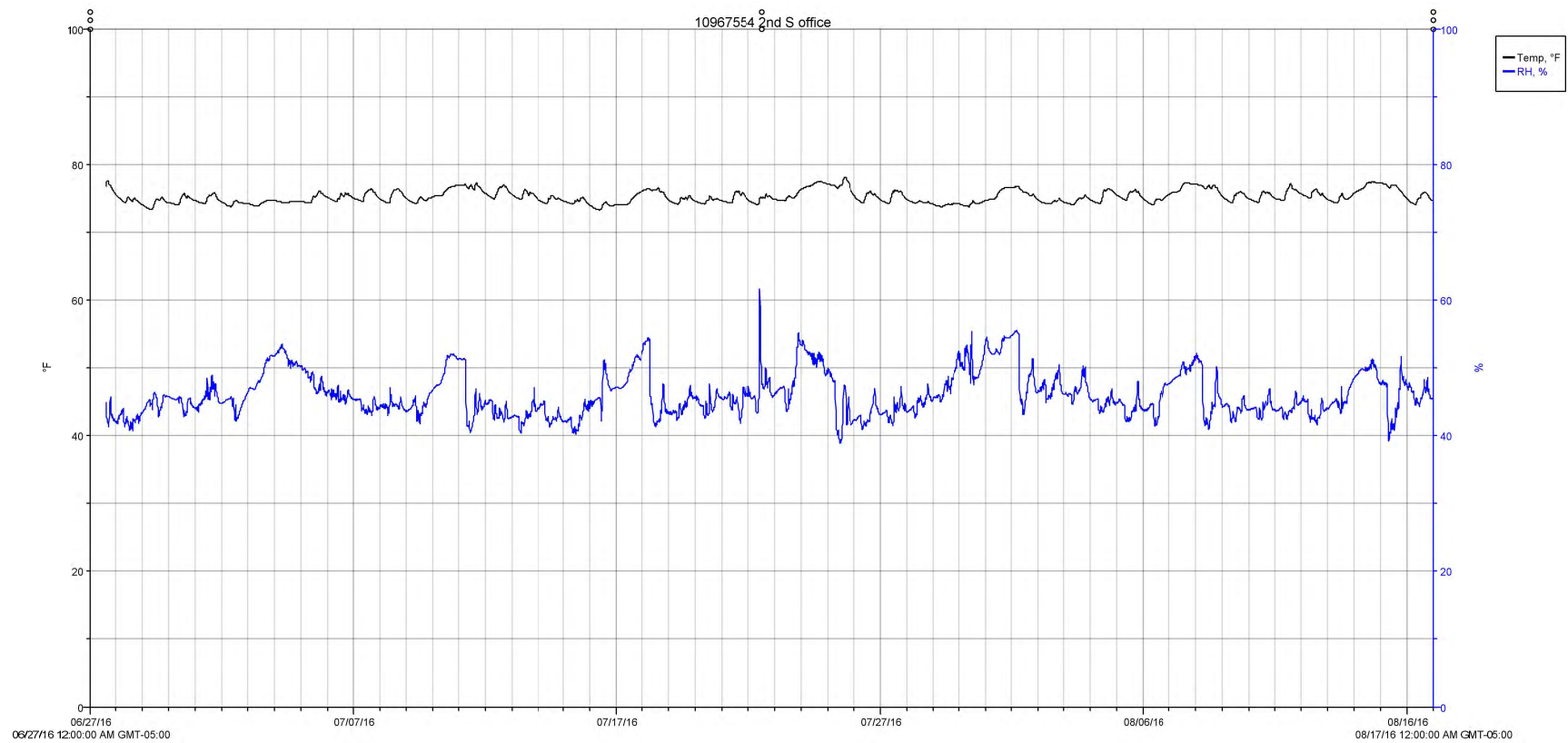
3RD FLOOR AT TOP OF MAIN STAIRS



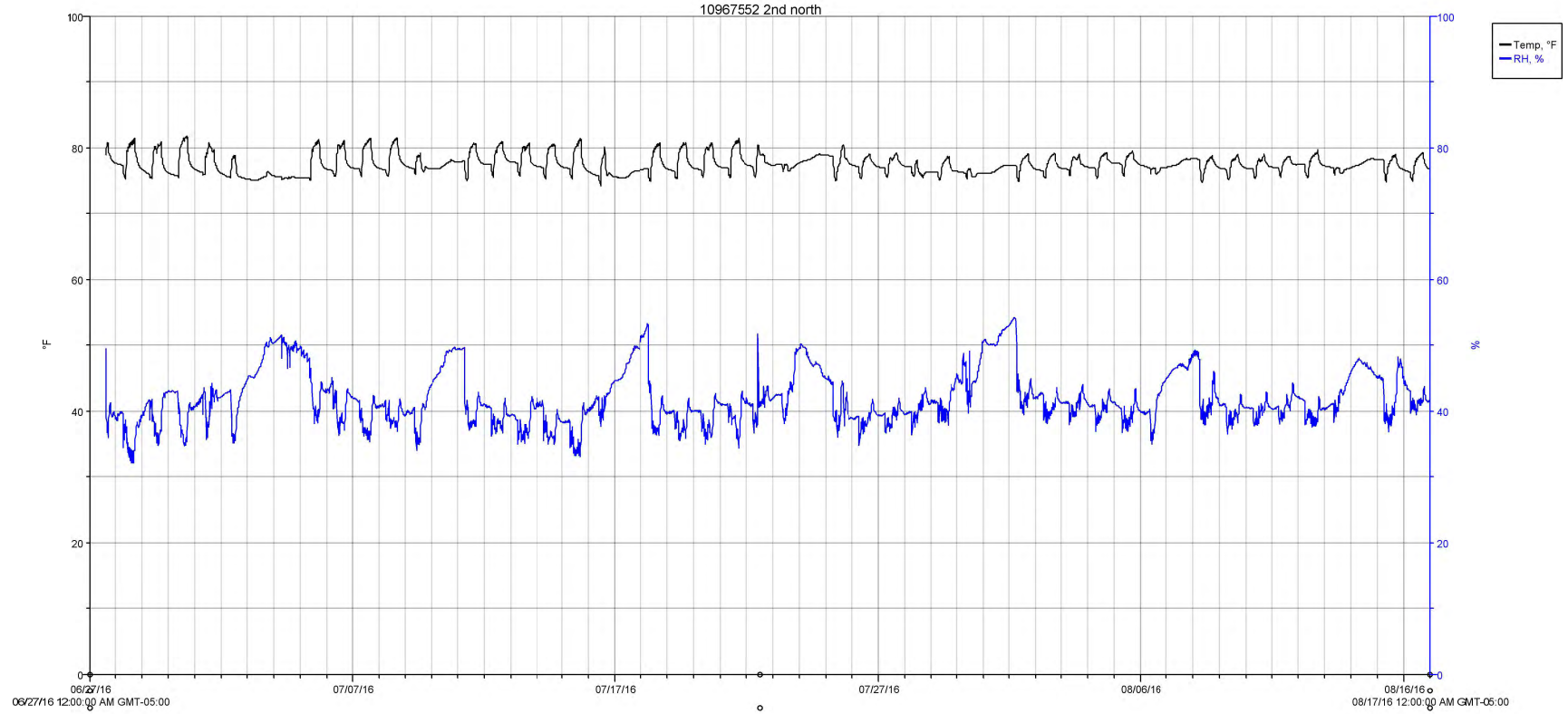
3RD FLOOR NORTH OFFICE



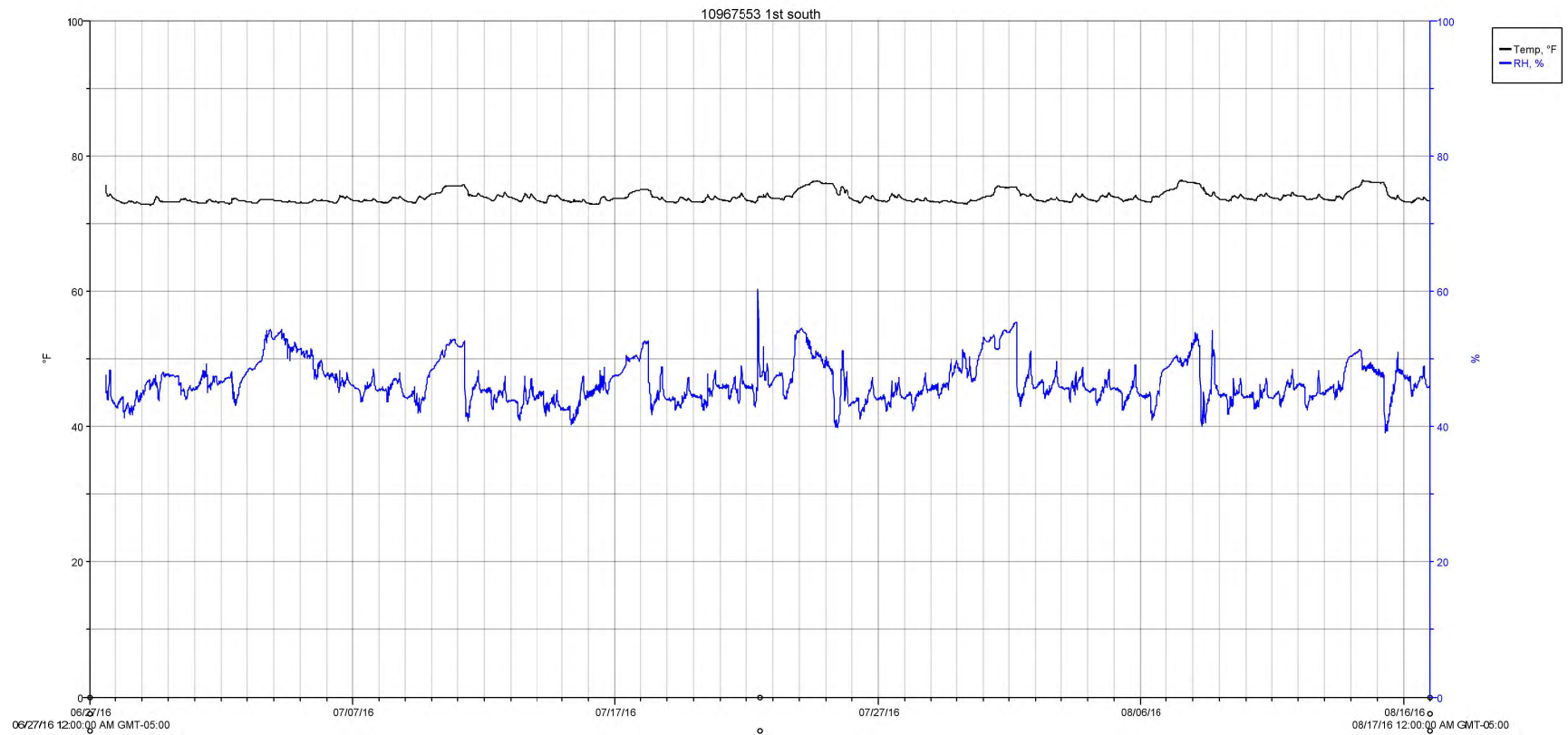
2ND FLOOR SOUTH OFFICE



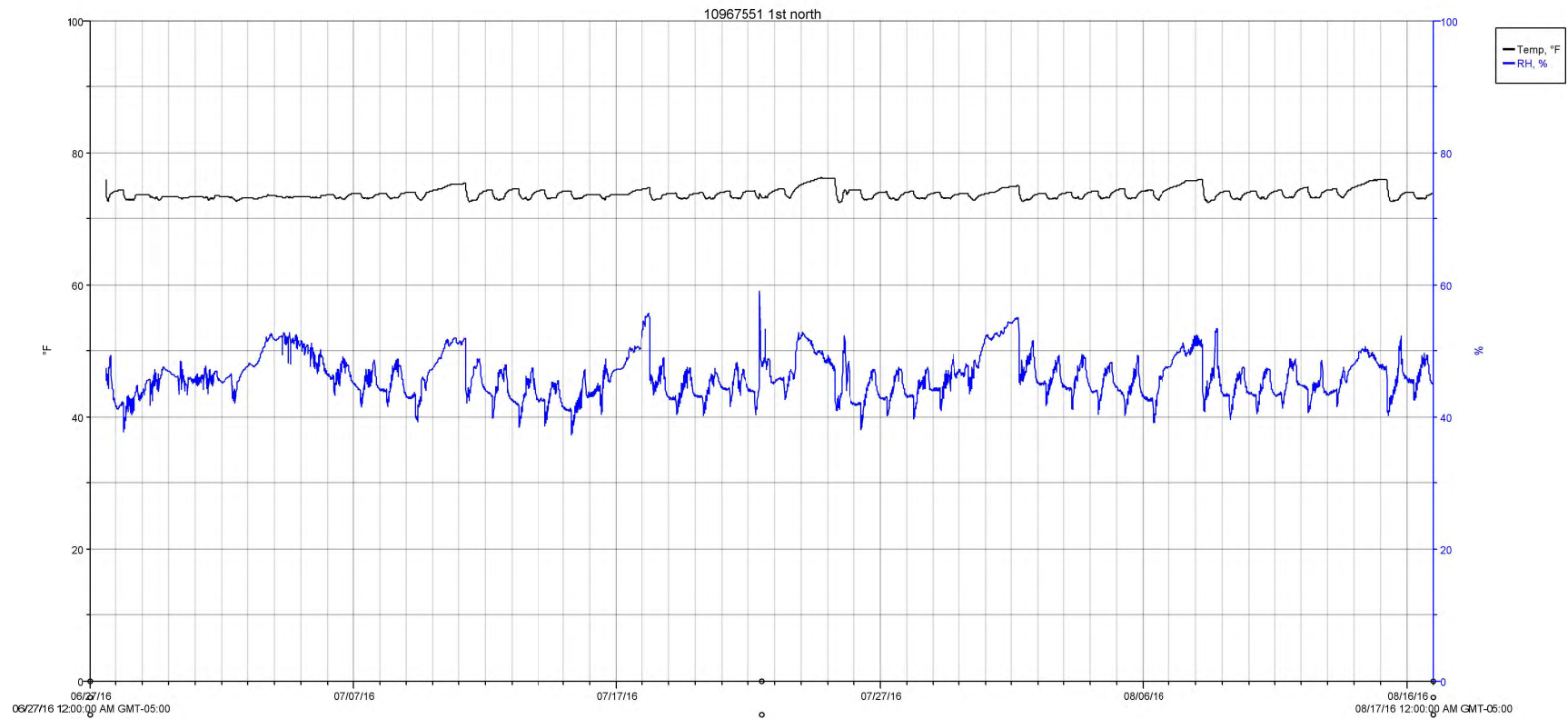
2ND FLOOR NORTH OFFICE



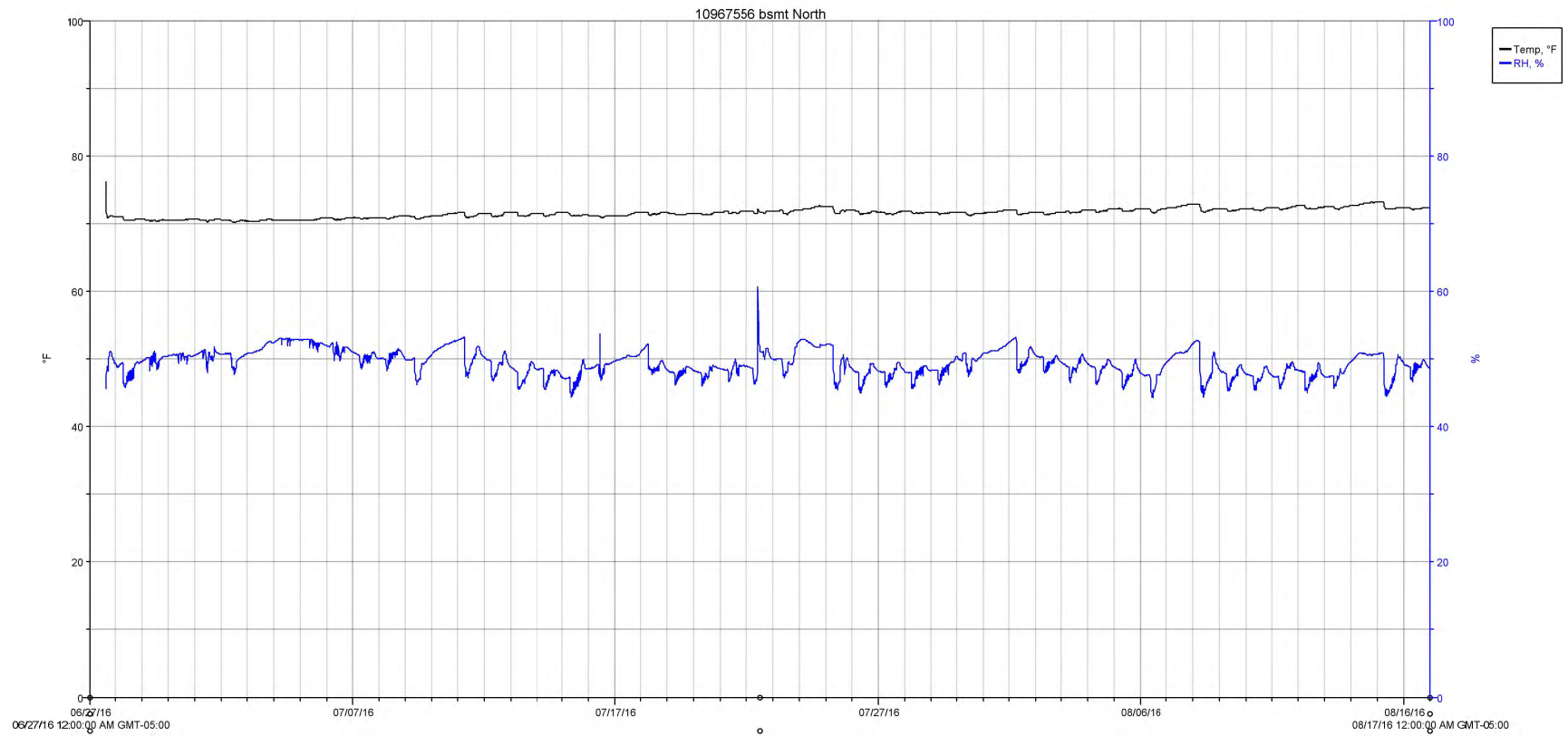
1ST FLOOR SOUTH DINING ROOM



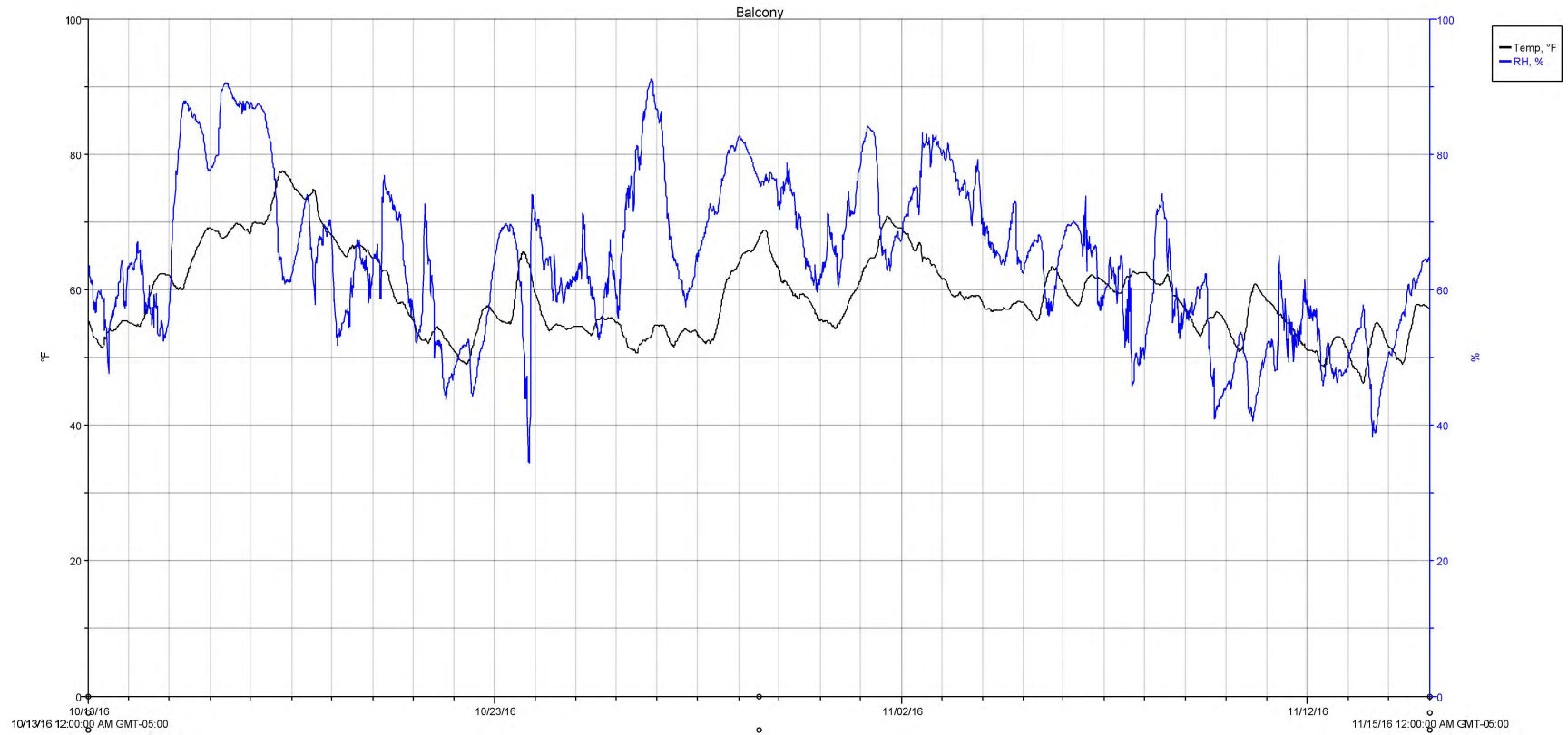
1ST FLOOR NORTH LIBRARY



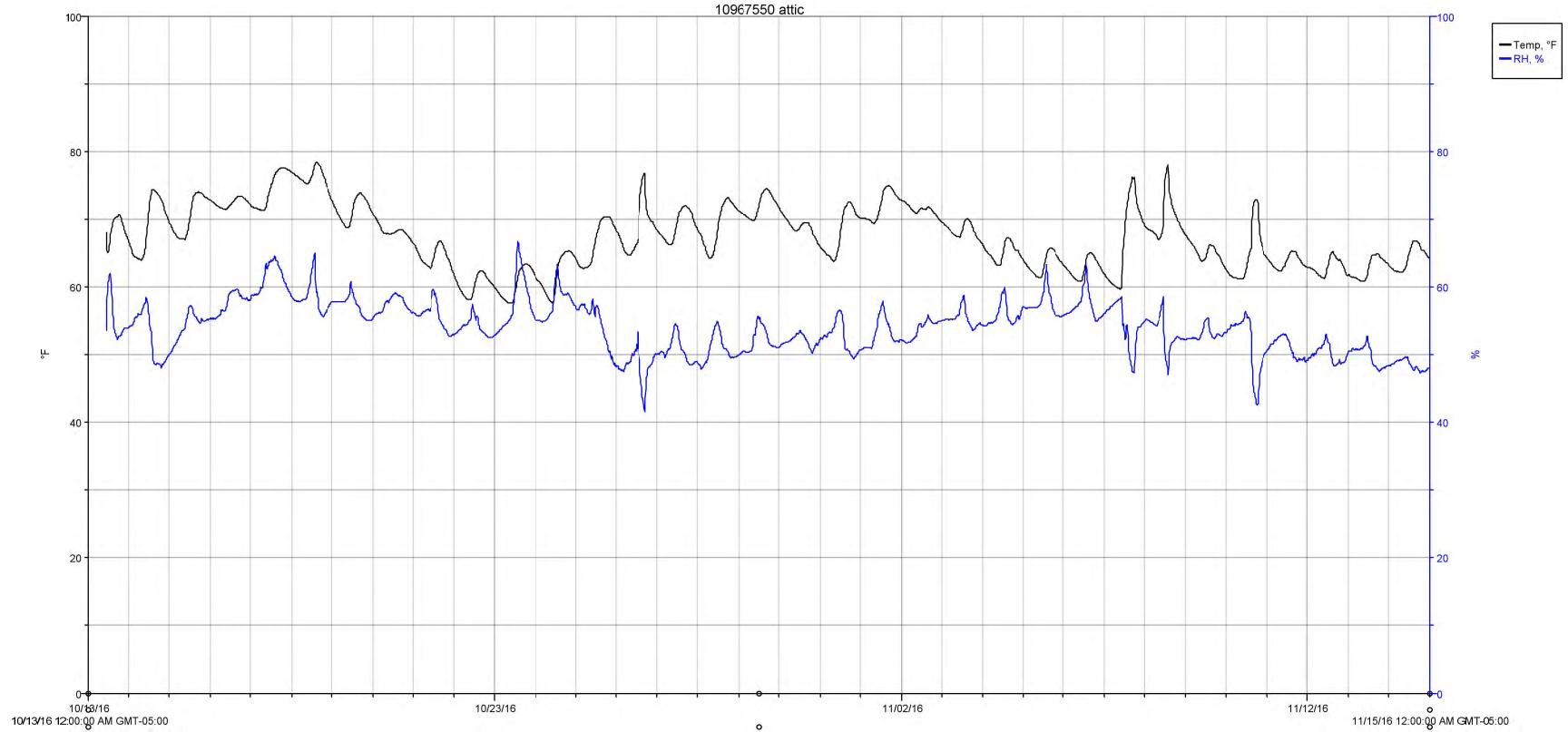
BASEMENT NORTH STORAGE



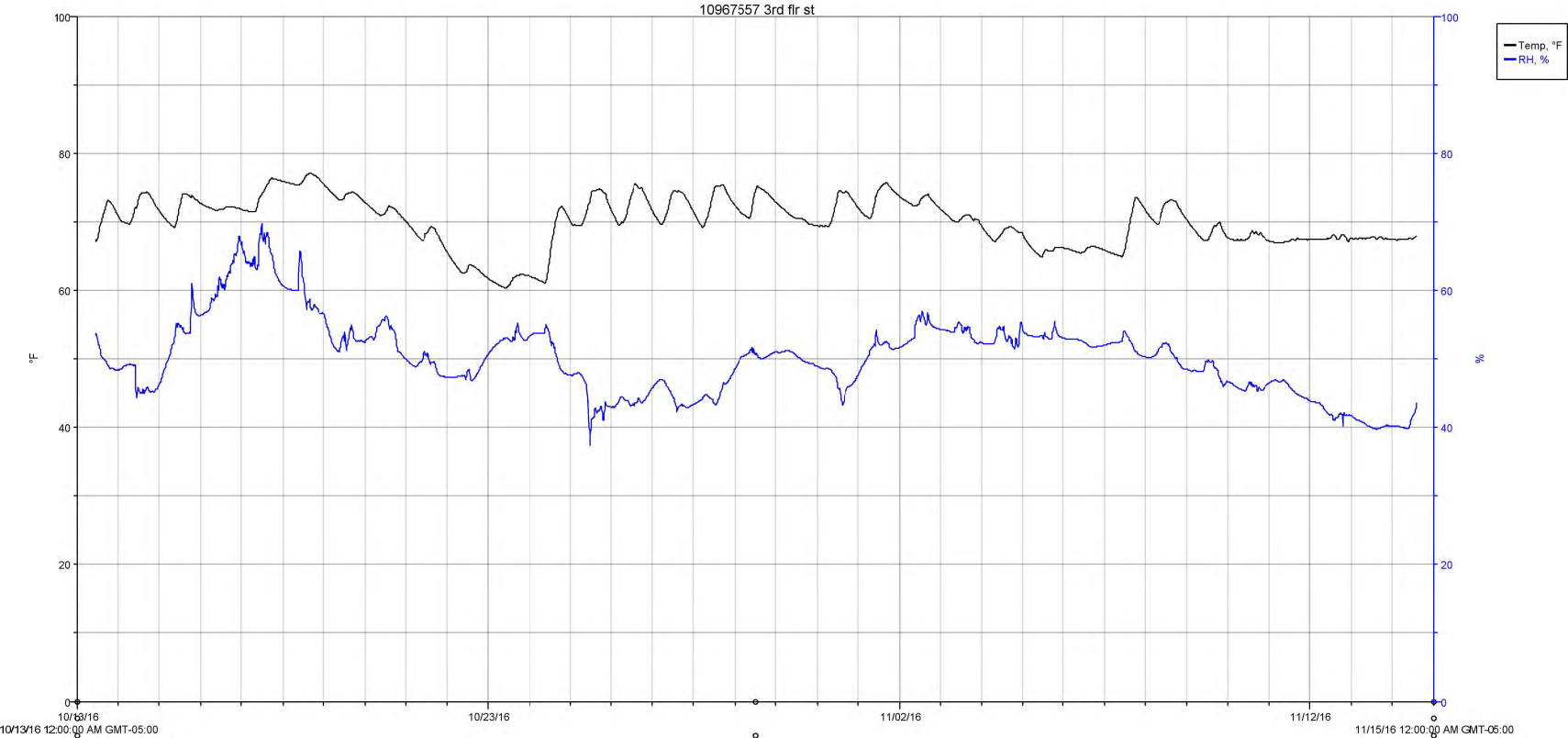
OUTSIDE TEMP & RH - BALCONY



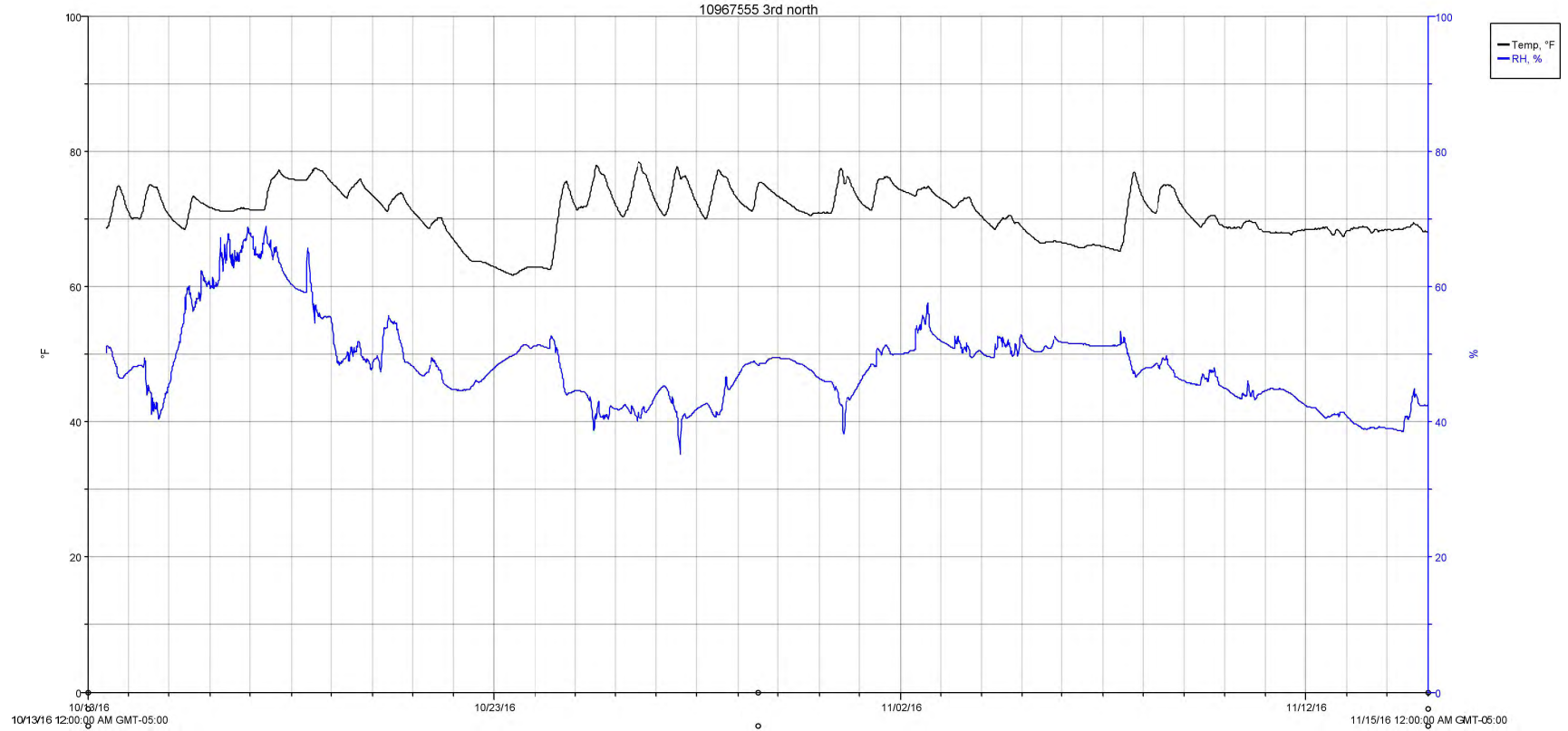
ATTIC NEAR EQUIPMENT



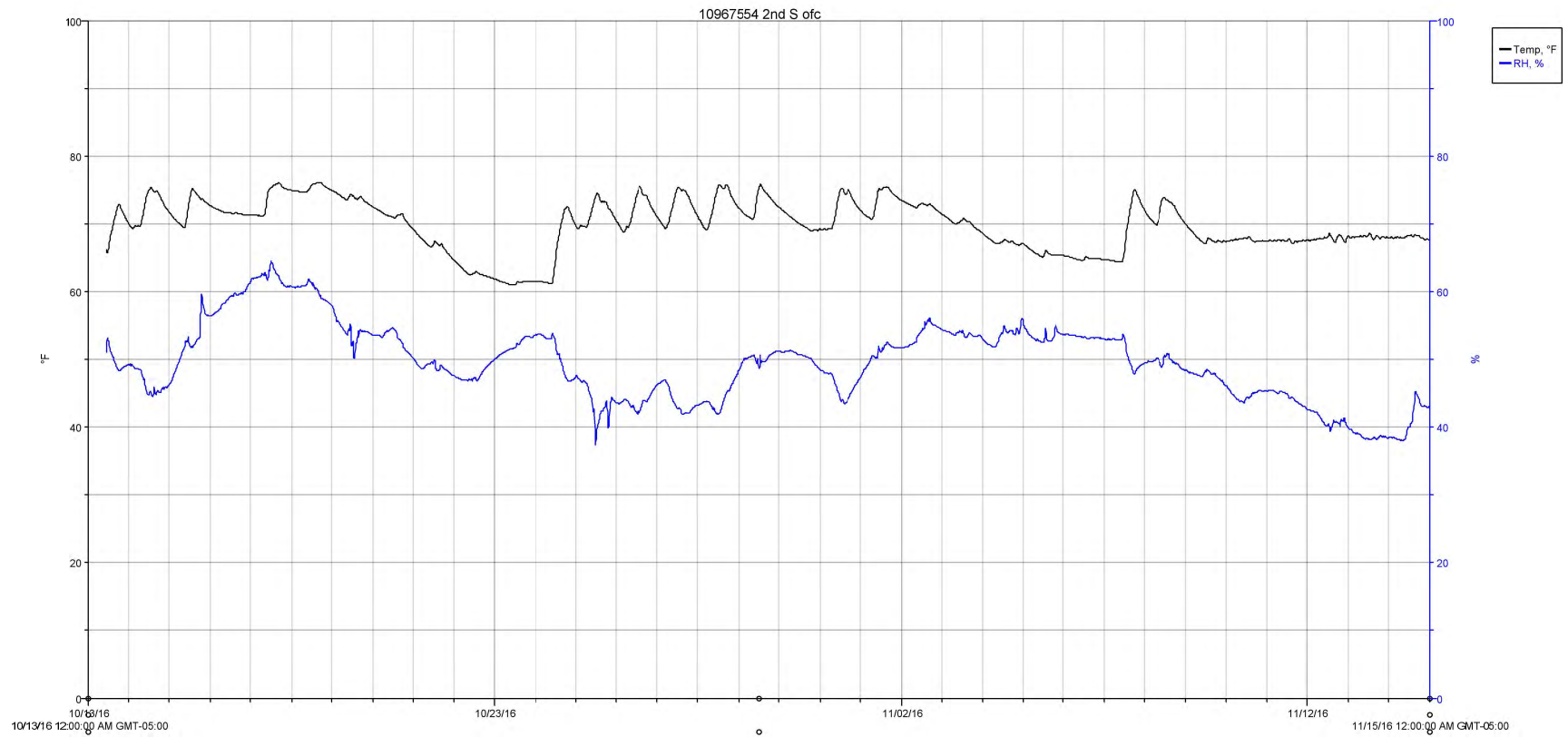
3RD FLOOR AT TOP OF MAIN STAIRS



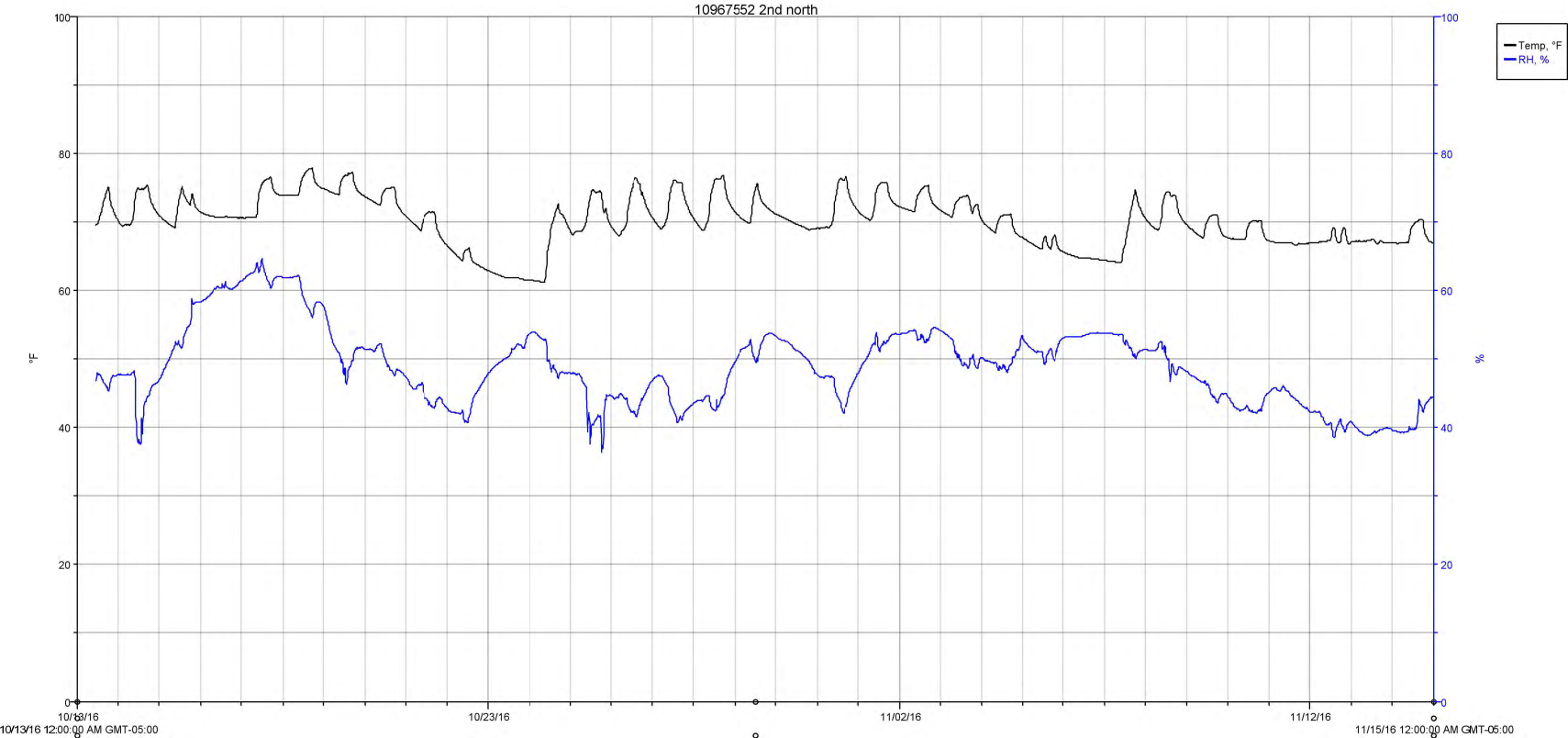
3RD FLOOR NORTH OFFICE



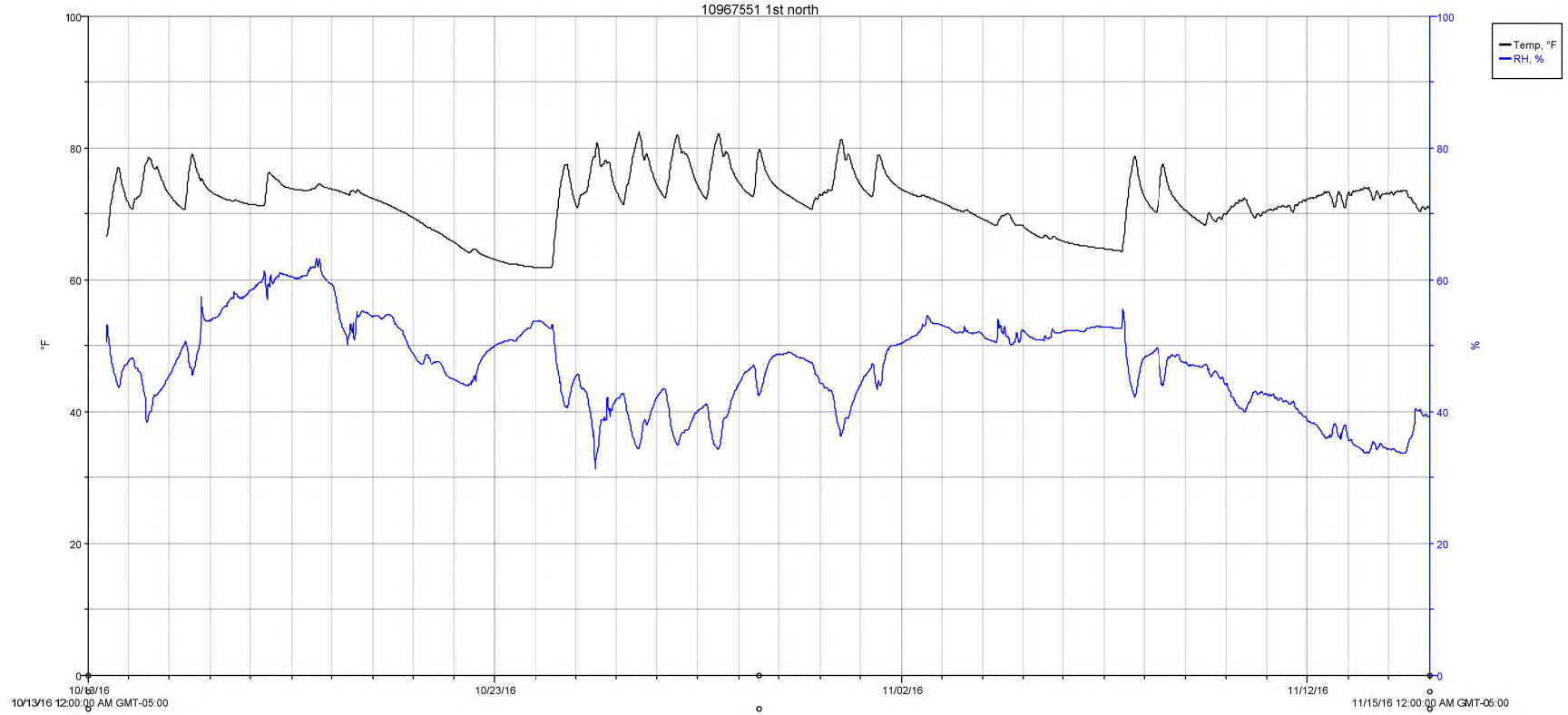
2ND FLOOR SOUTH OFFICE



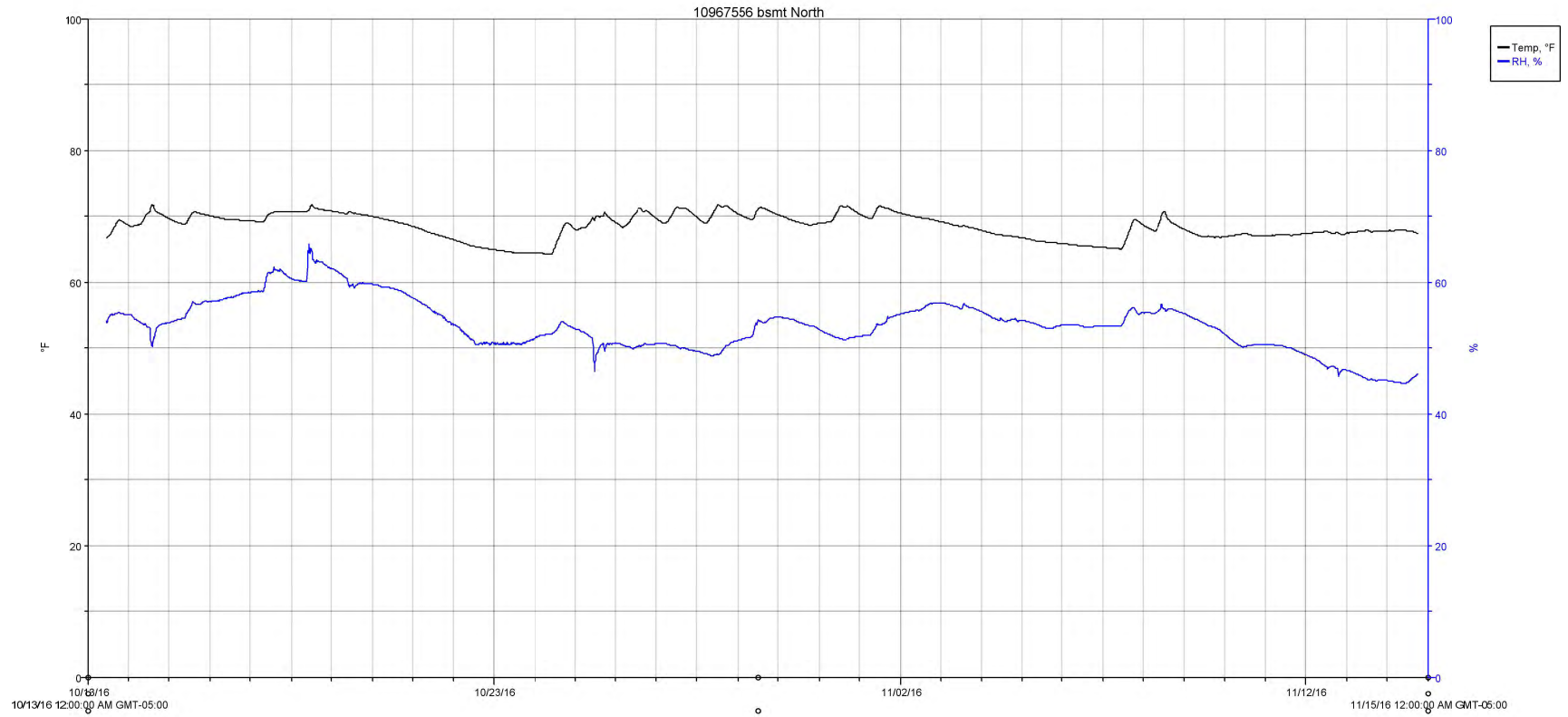
2ND FLOOR NORTH OFFICE



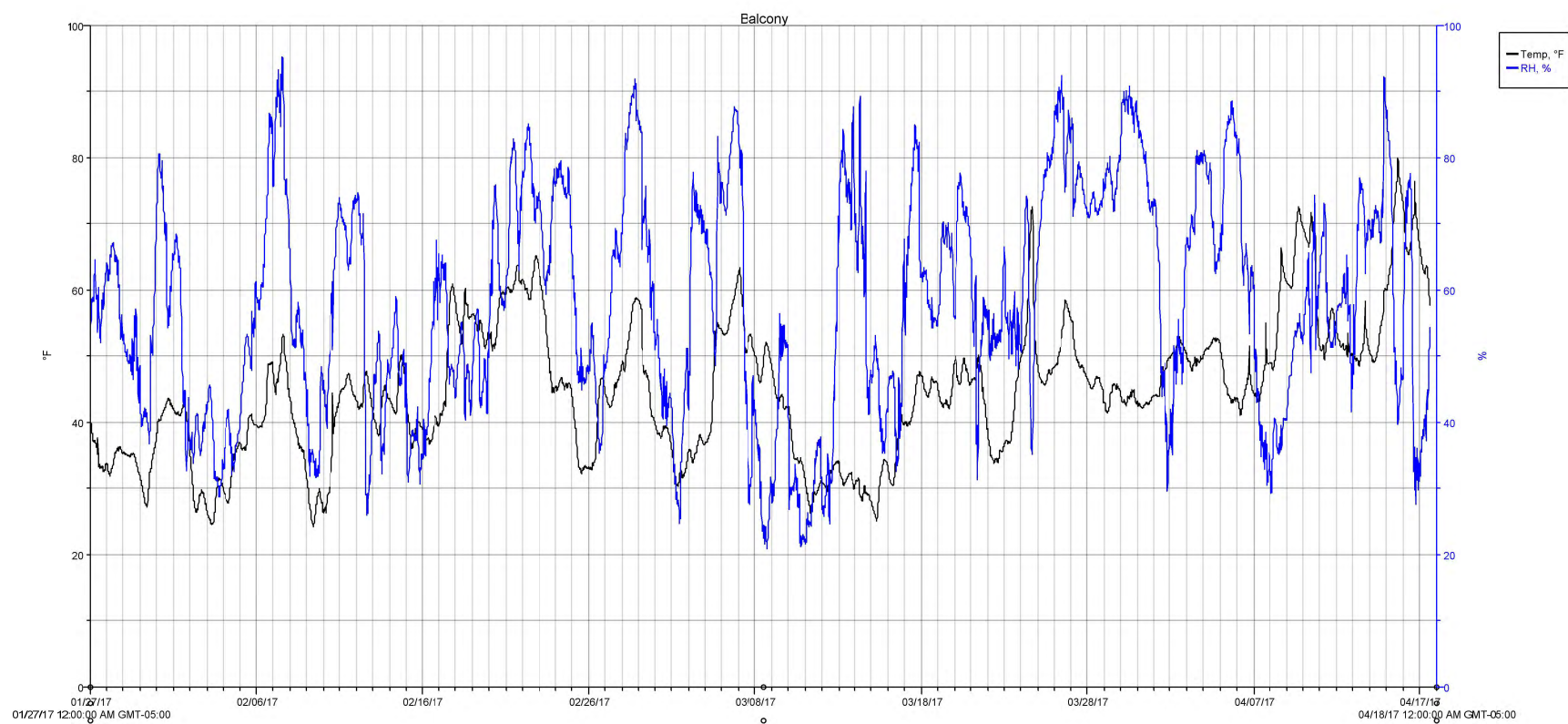
1ST FLOOR NORTH LIBRARY



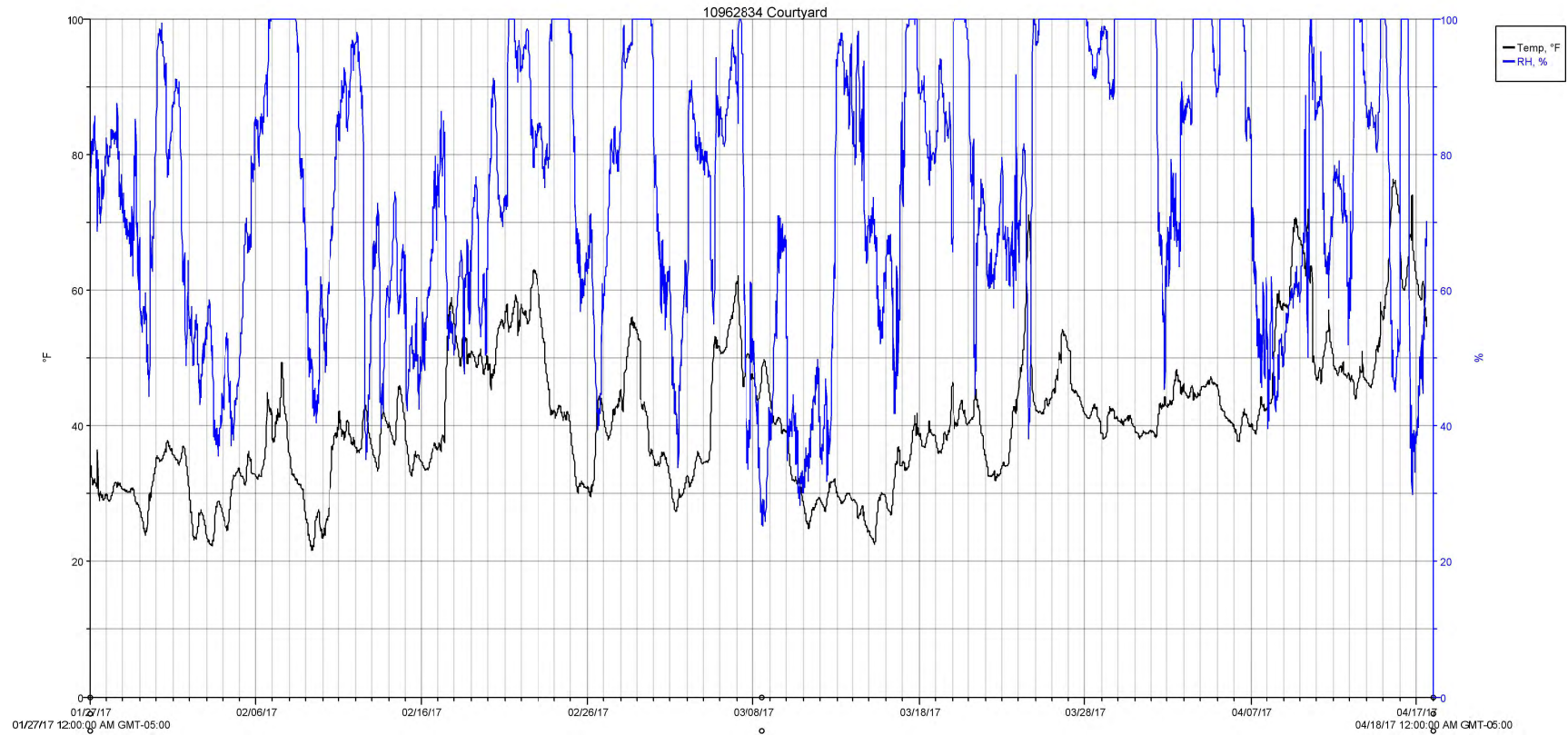
BASEMENT NORTH STORAGE



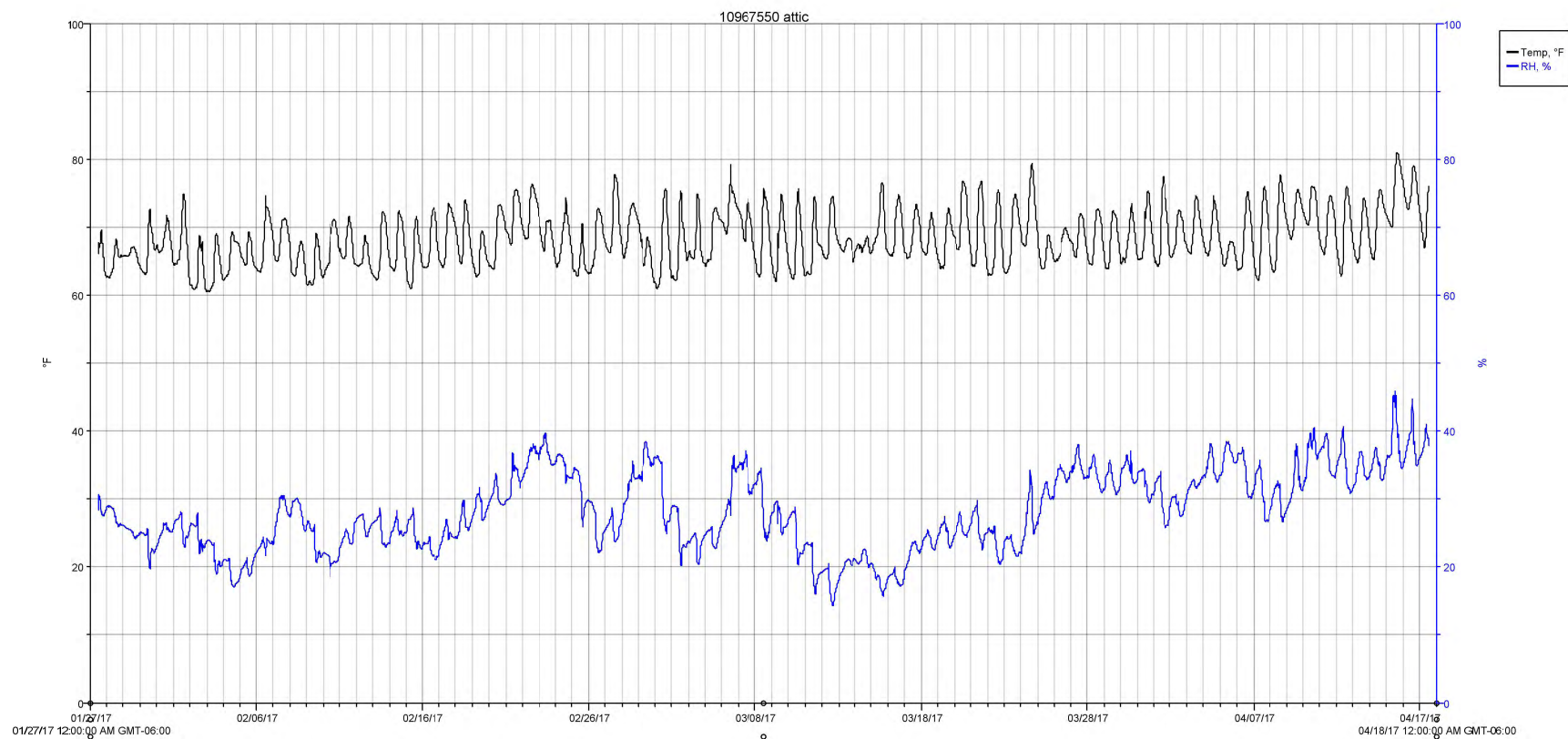
OUTSIDE TEMP & RH - BALCONY



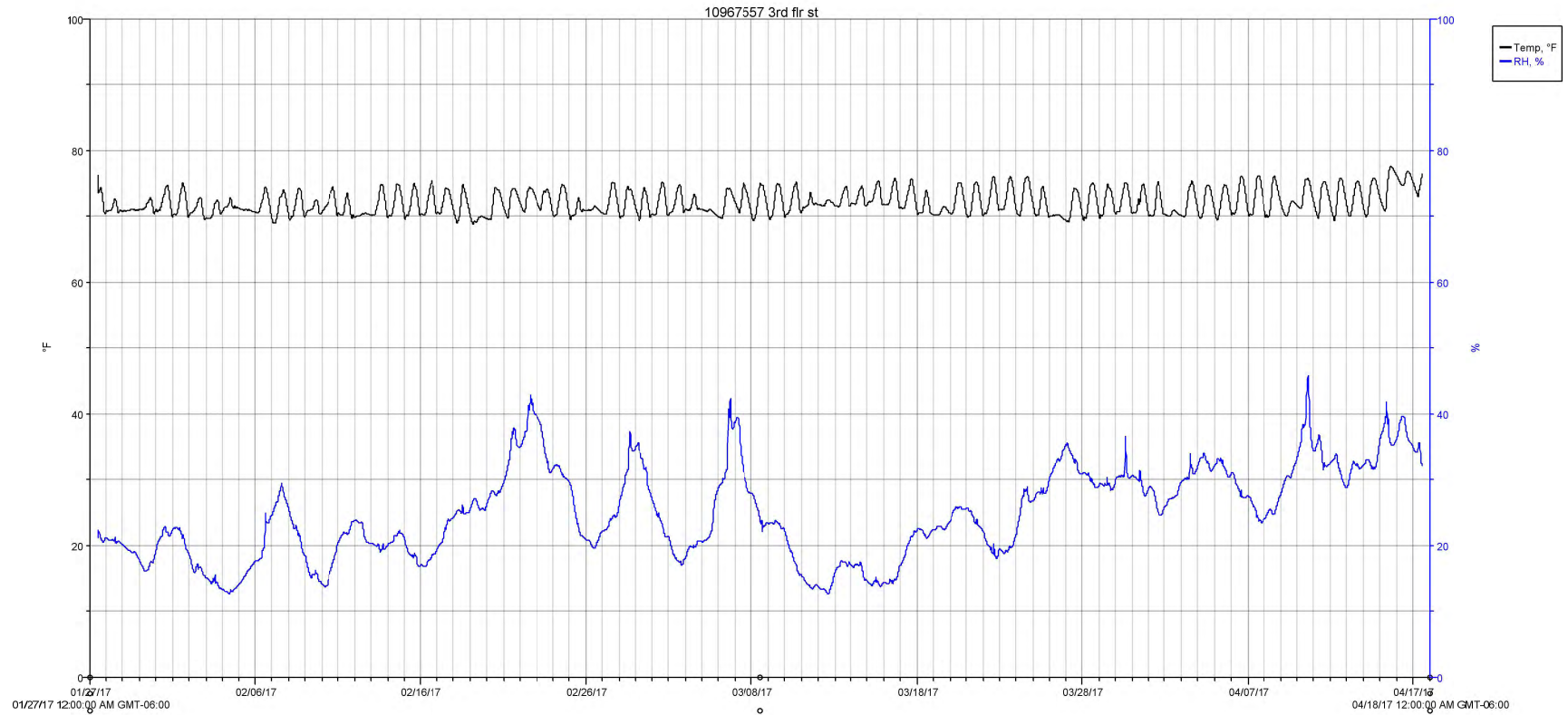
OUTSIDE TEMP & RH - COURTYARD



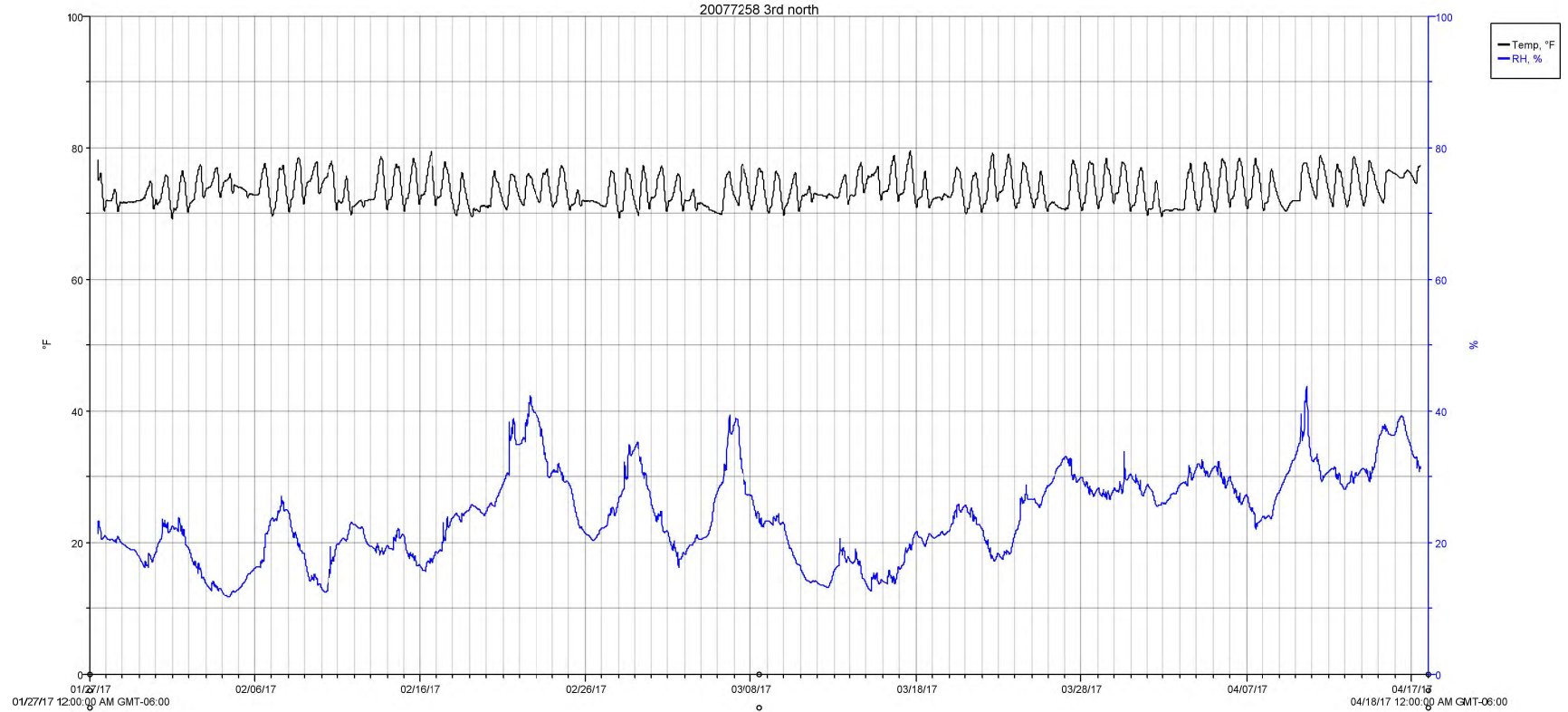
ATTIC NEAR EQUIPMENT



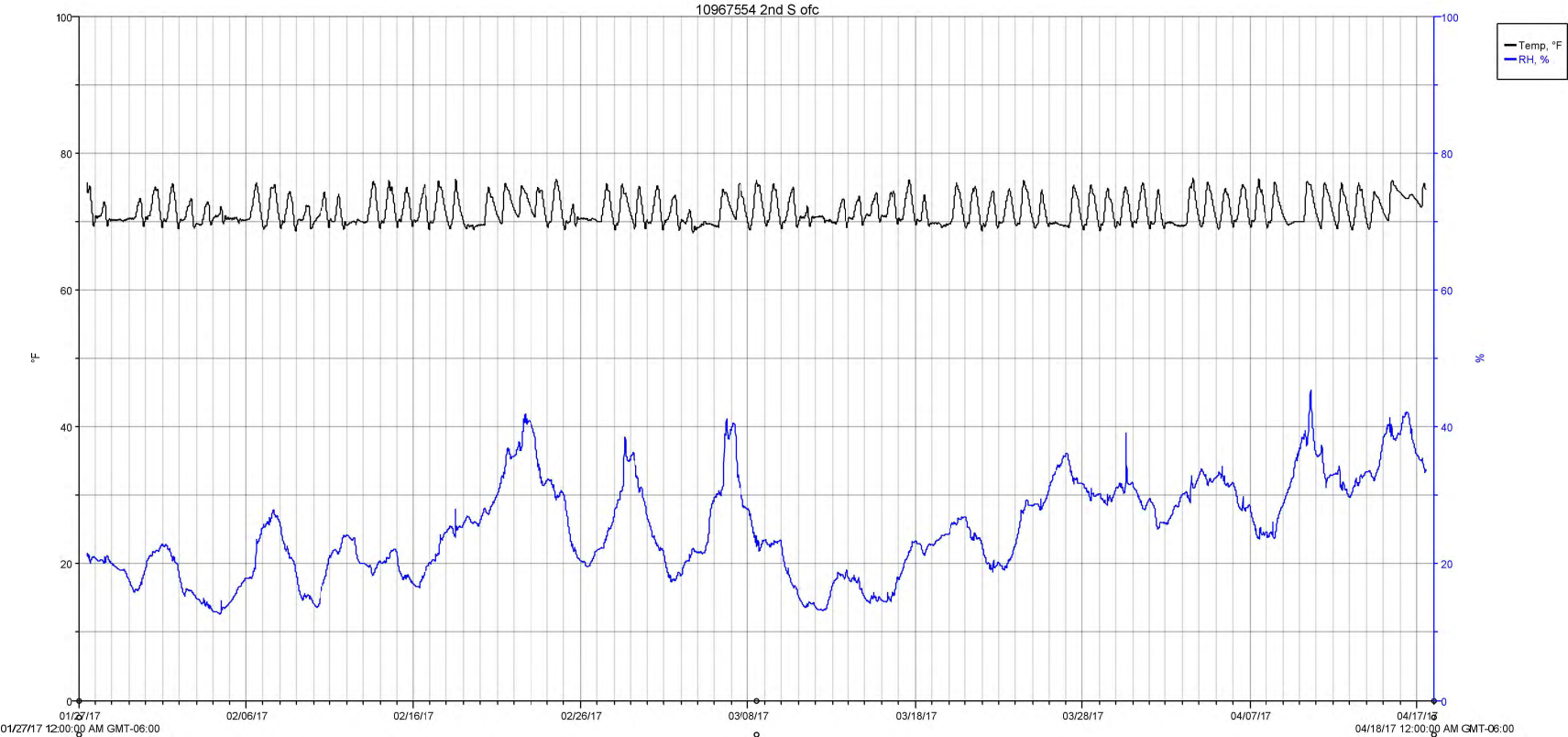
3RD FLOOR AT TOP OF MAIN STAIRS



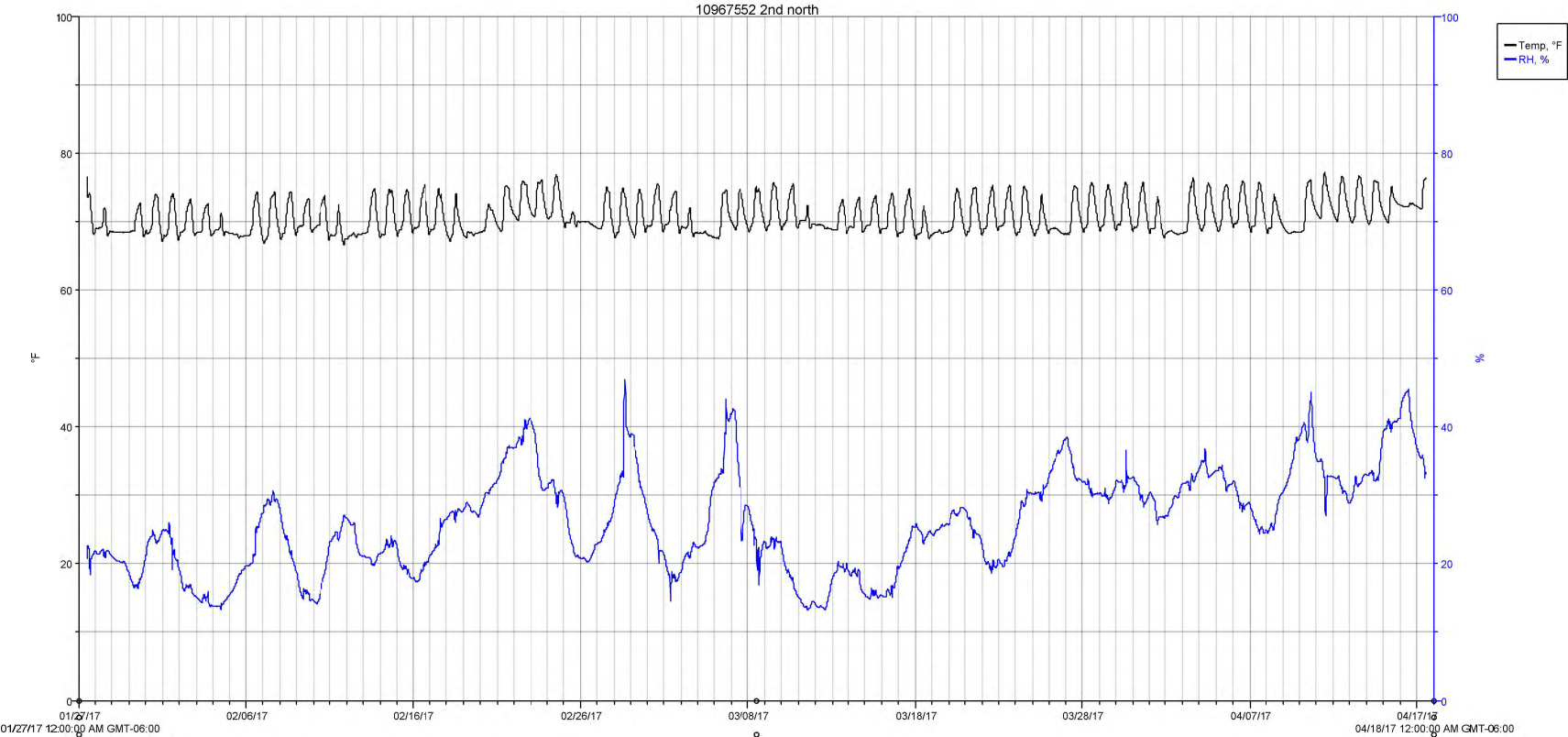
3RD FLOOR NORTH OFFICE



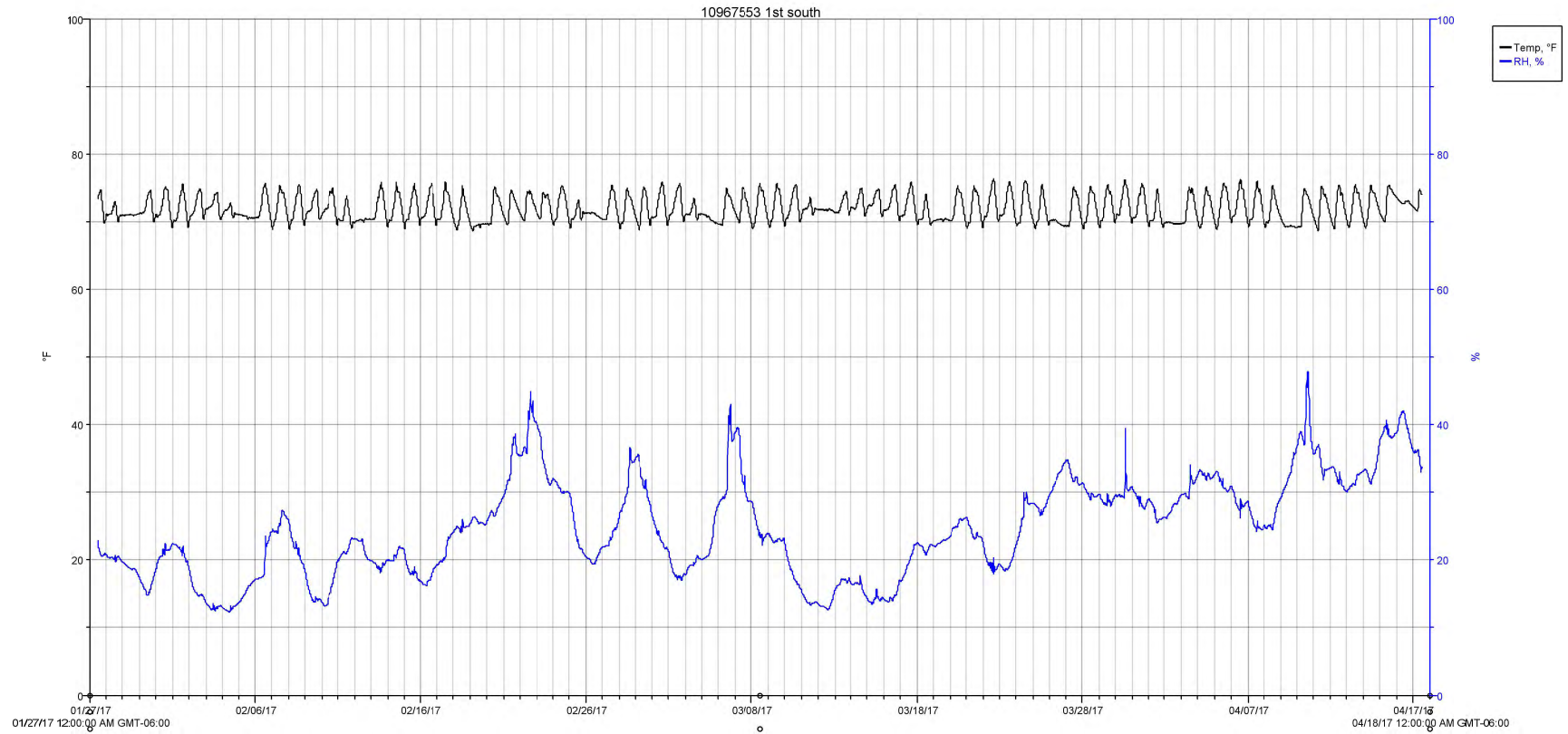
2ND FLOOR SOUTH OFFICE



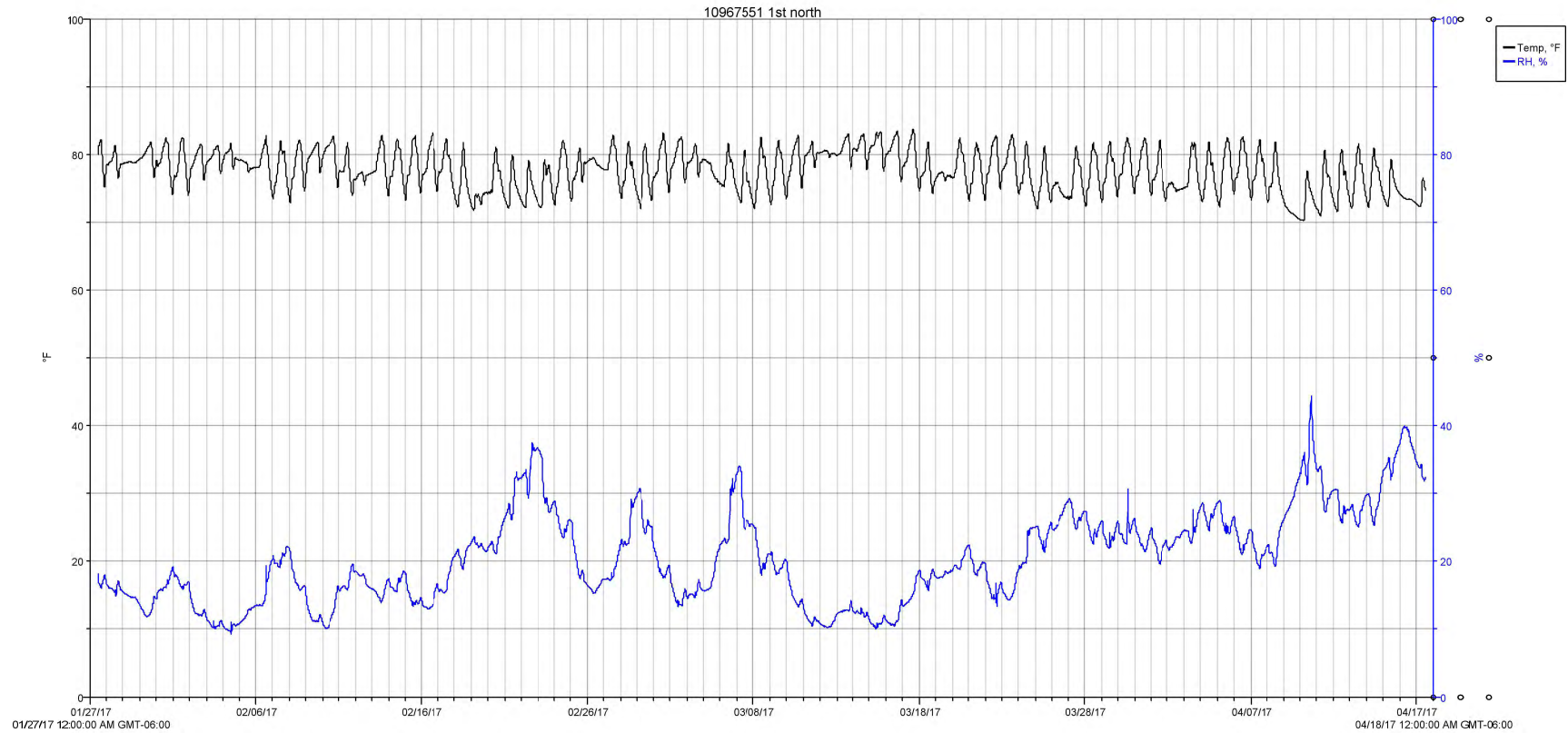
2ND FLOOR NORTH OFFICE



1ST FLOOR SOUTH DINING ROOM



1ST FLOOR NORTH LIBRARY



BASEMENT NORTH STORAGE

