President William Jefferson Clinton Birthplace Home National Historic Site

Hope, Arkansas

Historic Structures Report

December 2013

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Midwest Regional Office
Omaha, Nebraska

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About the front cover: The Cassidy House, view from the northwest, October 17, 2012.

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Associate Regional Director, Cultural Resources, Midwest Region

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Executive Summary

On March 30, 2010, Congress established President William Jefferson Clinton Birthplace Home National Historic Site as a unit of the National Park Service, recognizing the significance of the early developmental life of the forty-second president of the United States. The purpose of the national historic site is to preserve the resource most directly associated with the former president's youth and to interpret the influences of his family and community on President Clinton.

The one-acre National Historic Site located in Hope, Arkansas, contains three buildings—the Birthplace Home (also known as the Cassidy House), a visitor center, and a small comfort station. The site also includes the Virginia Clinton Kelley Memorial Garden, established in honor of President Clinton's mother. In 1995 the nonprofit Clinton Birthplace Foundation acquired these and some adjoining properties. The foundation managed and restored the site and properties until December 14, 2010, when ownership was transferred to the National Park Service.

The goal of the Historic Structures Report (HSR) project for President William Jefferson Clinton Birthplace Home National Historic Site, as defined by the National Park Service (NPS), is to develop critical planning and design documents preparatory to the eventual ultimate treatment of the buildings of the national historic site. The HSR is the first phase in this planning and design effort. The purpose of the HSR is to provide a compilation of the findings of research, investigation, analysis, and evaluation of the historic buildings. As part of the HSR, the preservation objectives for the historic property are identified and treatment measures are recommended for implementing and accomplishing these objectives.

Concurrent with the HSR but as a separate project, a Cultural Landscape Report and Environmental Assessment (CLR/EA) is being prepared for President William Jefferson Clinton Birthplace Home National Historic Site. Together, the HSR and CLR/EA serve as a basis for decision-making and direction for preservation of the site and its buildings. The reports also serve as a record document of existing conditions and as a basis for planning future preservation and maintenance.

The period of significance for President William Jefferson Clinton Birthplace Home National Historic Site and its associated cultural landscape has been determined to be 1946–1956. President Clinton's association with the Cassidy House is tied to the ownership and occupancy of the house by his maternal grandparents, Eldridge and Edith Cassidy; Clinton's early life there with his mother, Virginia Cassidy Blythe, and his grandparents after the death of Clinton's father, William Jefferson Blythe II; and his visits to his grandparents after Clinton and his mother, with her second husband Roger Clinton, moved to another house in Hope, and later to Hot Springs, Arkansas. Therefore, the period beginning with Bill Clinton's life in the house and ending with the sale of the house by the Cassidy family in 1956 will be used in rehabilitating the exterior of the buildings and the site.

The purpose of this study is to identify and recommend a scope of repairs to address existing deterioration and future maintenance of buildings at President William Jefferson Clinton Birthplace Home National Historic Site. It is understood that the continued use of the Cassidy House is anticipated to be similar to its current function as a house museum, and the continued use of the visitor center is also anticipated to be similar to its current functions, as offices for the

National Park, a visitor staging facility for tours, and exhibit space. Additional space needs have been identified to assist with the demands for new programs and interpretive content. These needs and their impacts on the historic resources are also being evaluated as part of the CLR/EA process.

The physical condition assessment of the Cassidy House and visitor center has identified some elements and systems that are generally in good condition and can be repaired and conserved. The renovation work undertaken at the site from 1995 to 1997 had a wide range of impacts on the historic fabric, especially at the Cassidy House. Much of the original fabric at the exterior and interior was removed and replaced, including siding, windows, trim, wallpaper; many of the replacement elements do not appear to have been designed based on archival documentation of the appearance of the house during the period of significance.

Many of the building's components, such as deteriorated exterior wood trim, cracked brick masonry, and settled foundations, are in need of stabilization and repair or replacement. Where replacement of particular elements is necessary due to severe deterioration, the architectural character of the buildings should be maintained by replicating the form, materials, and style of the historic elements. Other elements, such as the building mechanical systems, are not original to the historic period and do not contribute to the historic character of the house. These elements can be replaced when service life demands or in order to meet new program requirements. Based on these considerations, the treatment *rehabilitation* (the process of returning a building or structure to a useful state through repairs or alterations while retaining significant historic features) is appropriate for the buildings of President William Jefferson Clinton Birthplace Home National Historic Site.

Guidelines and requirements for treatment have been defined based on the rehabilitation objectives outlined above for the Cassidy House, visitor center, and comfort station. The treatment and design guidelines and recommendations for the house include specific near-term recommendations as well as guidance for future efforts. All treatment guidelines and recommendations were developed in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.* Prioritized guidelines address structural stabilization, exterior envelope weatherproofing, interior repairs, modifications for life safety and fire protection, and cyclical inspection and maintenance.

Specific alternatives and recommendations for treatment identified in this study include extensive foundation work; structural repairs and upgrading of framing elements to meet programmatic load requirements; reconstruction of the screen porches at the Cassidy House; repair/replacement and repainting of the exterior wood siding, windows and doors, and porches; and repair and replacement of interior finishes. In addition, abatement of some lead-based paint will be required as part of rehabilitation efforts at the visitor center.

In regards to mechanical, electrical, and plumbing systems in the house, the heating and cooling systems, while recently replaced, adversely affect the visitor experience, with condenser noise and visual intrusion into the yard and memorial garden. These systems should be replaced with less intrusive systems when service life demands or as program improvements are implemented. New electrical service will be installed and all interior wiring upgraded. Other systems improvements will include a smoke detection system, dry-pipe automatic fire protection systems, full security

* http://www.nps.gov/hps/tps/standguide/, accessed November 1, 2013.

system, and enhanced telephone/data cable systems provided to all office and interpretive areas. In addition to the work defined in the HSR, the CLR/EA currently in preparation for President William Jefferson Clinton Birthplace Home National Historic Site will guide future efforts related to the site and landscape.

Introduction

At the request of the National Park Service (NPS), Bahr Vermeer Haecker Architects (BVH), and subconsultants Wiss, Janney, Elstner Associates, Inc. (WJE) and Historic Resources Group, Inc. (HRG), have developed this Historic Structures Report (HSR) for President William Jefferson Clinton Birthplace Home National Historic Site in Hope, Arkansas. The goal of the HSR project for President William Jefferson Clinton Birthplace Home National Historic Site is to provide critical assessment and planning guidance preparatory to the eventual design and implementation of the ultimate treatment for the site's buildings. Together with the Cultural Landscape Report for this National Historic Site, the HSR is intended to serve as a guide to long-term care of the historic site and its buildings well into the future.

First developed by the National Park Service in the 1930s, HSRs are documents prepared for a building, structure, or group of buildings and structures of recognized significance to record and analyze the property's initial construction and subsequent alterations through historical, physical, and pictorial evidence; document the performance and condition of the structure's materials and overall physical stability; identify an appropriate course of treatment; and, following implementation of the recommended work, document alterations made through that treatment.

Concurrent with the HSR work effort, the consultant team is also preparing a Cultural Landscape Report and Environmental Assessment (CLR/EA) for President William Jefferson Clinton Birthplace Home National Historic Site. Produced as stand-alone documents, together the HSR and the CLR/EA will provide important information regarding the park's structural, historical, and natural resources and contain complementary treatment recommendations.

Project Background

President William Jefferson Clinton Birthplace Home National Historic Site is located at 117 South Hervey Street, Hope, Arkansas, approximately 110 miles southwest of Little Rock, Arkansas. Recently established as a unit of the National Park Service as a National Historic Site, it includes a one-acre site containing three buildings—the Birthplace Home (hereafter cited as the Cassidy House), the visitor center, and a comfort station—along with the Virginia Clinton Kelley Memorial Garden. The historic site interprets the early life and development of the forty-second president of the United States.

Following a fire on April 16, 1992, the Cassidy House was vacated. It was purchased in December 1992 by Sammy and Mary Crabtree on behalf of a local non-profit group, the William Jefferson Clinton Home Organization, Inc. The Crabtrees also acquired an adjacent house at the corner of Hervey and Division in 1994. On May 19, 1994, the Cassidy House was listed in the National Register of Historic Places.

The Clinton Birthplace Foundation, founded in 1993, acquired the Cassidy House and the corner lot in June 1995. Over a three year period, the foundation renovated the Cassidy House as well as an adjacent house it purchased for use as a visitor center. In 1997, the site opened to the public as President Bill Clinton's 1st Home Museum and Exhibit Center. The Memorial Garden was added soon after to honor President Clinton's mother. In 2010, the home was designated as a National Historic Site, and in January 2011 began operation under the management of the National Park Service.

The President William Jefferson Clinton Birthplace Home National Historic Site Foundation Document summarizes the park's purpose as:

> The purpose of President William Jefferson Clinton Birthplace Home National Historic Site is to preserve the site most directly associated with the former President's youth and early development; to interpret his family's and community's influences on Bill Clinton's education and growth of his ambitions, as well as his sense of inner strength and dedication to purpose; all for the enjoyment, education and inspiration of the public in this and future generations.[1]

Project Scope and Methodology

The purpose of the HSR is to provide a compilation of the findings of research, investigation, analysis, and evaluation of the historic buildings. The preservation objectives for the historic property are identified and treatment measures recommended for implementing and accomplishing these objectives. The HSR serves as a basis for decision-making and direction for preservation of the building. The report also serves as a record document of existing conditions and as a basis for planning future preservation and maintenance.

The HSR addresses key issues specific to the construction chronology of the building; the existing physical condition of the exterior envelope, structural systems, and interior spaces and features; code issues related especially to access and use of the buildings; and the historic significance and integrity of each building. Mechanical and electrical systems were not included in the scope of services for this HSR.

Firm responsibilities were as follows:

- Bahr Vermeer Haecker Architects (BVH) – lead firm, project administration, project architects, and accessibility and code review
- Wiss, Janney, Elstner Associates, Inc. (WJE) – project architects, historians, structural engineers, and architectural conservators
- Historic Resources Group, Inc. (HRG) – project historians
- Terracon Consultants, Inc. – environmental engineers

The following project methodology was used for this study.

Research and Document Review. Archival research was performed to gather information about the original construction and past modifications and repairs for use in assessing existing conditions and developing treatment recommendations for the buildings. Documents reviewed included drawings, specifications, historic photographs, and other written and illustrative documentation about history, construction, evolution, and repairs to the

1. *President William Jefferson Clinton Birthplace Home National Historic Site Foundation Plan* (Little Rock, Arkansas: President William Jefferson Clinton Birthplace Home National Historic Site, March 2013.

subject buildings. The research for this study built upon prior historical and archival research by others. Primary reference documents reviewed for this study included the following:

- President William Jefferson Clinton Birthplace Home National Historic Site Foundation Document, prepared by President William Jefferson Clinton Birthplace Home National Historic Site in March 2013.
- *Long-Range Interpretive Plan, President William Jefferson Clinton Birthplace Home National Historic Site*, prepared by President William Jefferson Clinton Birthplace Home National Historic Site, the NPS Midwest Regional Office, and NPS Harpers Ferry Center Interpretive Planning, November 2012.
- *National Register of Historic Places* nomination, prepared by Kenneth Story, dated March 29, 1994.
- Clinton First Home Renovation Construction Documents, Project No. 93-074, Cromwell Architects Engineers, no date.

Other reference documents and archival material used in development of this report are listed in the Bibliography.

The following archival repositories were visited or contacted in researching this study:

- William J. Clinton Presidential Library and Museum, Little Rock, Arkansas
- Southwest Arkansas Regional Archives, 201 Highway 195 South, Washington, Arkansas
- Arkansas Highway Department, Little Rock, Arkansas
- City of Hope Parks and Recreation and City Planning Departments, Hope, Arkansas
- Hempstead County Clerk, Hope, Arkansas
- Clinton Birthplace Foundation, Inc., Hope, Arkansas
- Arkansas History Commission, Little Rock, Arkansas
- Cromwell Architects archives, Little Rock, Arkansas.

In addition to the archival research, several individuals connected with the site and the Clinton family history were contacted. These included the following:

- Joe Purvis, Attorney, Little Rock, Arkansas
- Paul Henley, Director, Parks and Recreation for the City of Hope, Hope, Arkansas
- Martha Berryman, Anthropologist, (former director of the Clinton Birthplace Home) Rosanky, Texas
- Ivan Baker, Retired, Tinley Park, Illinois
- George Frazier, retired, Hope Arkansas
- Beckie Moore, former director of the Clinton Birthplace Home
- Stan Jackson, Designer, Little Rock, Arkansas
- Rose Crane, Fundraiser, Little Rock, Arkansas
- Charlie Penix, Architect, Little Rock, Arkansas
- Terry Huitt, Construction, Little Rock, Arkansas

Based on initial discussions with these contacts, oral interviews were conducted by project team members with Joe Purvis, Paul Henley, Stan Jackson, and Charlie Penix. Notes from these interviews were compiled and are provided in Appendix E of the HSR.

A list of research materials and sources reviewed and discovered is provided in the Bibliography.

Condition Assessment and Documentation. Concurrent with the historical research, a condition survey was performed of the three buildings located at President William Jefferson Clinton Birthplace Home National Historic Site—the Cassidy House, visitor center, and comfort station. Observations were documented with digital photographs, field notes, and annotation on baseline drawings. For purposes of the field survey, 1990s renovation drawings prepared by Cromwell Architects Engineers were provided to the project team by the NPS. The condition assessment addressed the exterior and interior surfaces and features of the three buildings. The assessment also addressed the structural systems of only the Cassidy House and the visitor center buildings.

Information about the HVAC systems in the three buildings was provided by Robert McKelvey, National Park Service Facility Manager at Little Rock Central High School National Historic Site. Mr. McKelvey conducted an on-site walk-through of each building and provided valuable information about the history of building system upgrades and other maintenance that has been performed.

As part of the field investigation, inspection openings were created at the Cassidy House to examine concealed components of the exterior wall construction, window assemblies, and roof assemblies.

Landscape and site features including the adjacent homes, neighborhood context, and parking areas were not surveyed as part of the HSR study. The CLR/EA provides a comprehensive reference for the site and its components.

Materials Studies. As part of the Historic Structures Report, a limited analysis was conducted to identify hazardous materials as well as to provide detailed information about finishes. Samples of wallpaper remnants were found and removed for later examination by NPS. Potential hazardous materials were also sampled and tested for asbestos and lead content. Commentary on the hazardous materials sampling, analysis, and results is contained in the Physical Description and Condition Assessment chapter, with a copy of the full report included in Appendix B. Finishes (color) analysis was performed for primary significant features of the Cassidy House and visitor center. Analysis findings are presented in the Interior Evaluation section and in Appendix C.

Development of History, Chronology of Construction, and Evaluation of Significance. Based on historical documentation and physical evidence gathered during the study, a context history and a chronology of design and construction were developed. An evaluation of the significance was also prepared, taking into consideration previous historical assessments, including the National Register of Historic Places documentation and other reference documents, as well as guidelines provided by the National Register Bulletin, *How to Apply the National Register Criteria for Evaluation*.[2] This evaluation of history and significance provided

2. *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (Washington, D.C.: National Park Service, National Register of Historic Places, 1990, revised 1995).

the basis for the development of recommended treatment alternatives.

Programming. Particular challenges to the park in regard to the visitor center are the space and functional limitations of this building. The President William Jefferson Clinton Birthplace Home National Historic Site *Long-Range Interpretive Plan* indicates and recommends that additional interpretive programs be planned and implemented. As part of the HSR project's October 2012 start-up meeting, a programming discussion was held involving representatives of the park, the NPS Midwest Regional Office project Contracting Officer's Technical Representative (COTR), and project consultants to develop conceptual understanding of the interpretive and administrative space needs and develop appropriate concepts for meeting current and future needs. Recommended concepts are presented in the Recommendations section of the report.

Guidelines for Preservation. Based on the evaluation of historical and architectural significance of the buildings, guidelines were prepared to assist in the selection and implementation of preservation treatments.

Treatment Recommendations. The Secretary of the Interior's Standards for the Treatment of Historic Properties guided the development of treatment recommendations for the significant exterior and interior features of the buildings.[3] Following the overall treatment approach of *rehabilitation*, the specific recommendations address observed existing distress conditions as well as long-term preservation objectives.

Preparation of Historic Structure Report. Following completion of research, site work, and analysis, a narrative report was prepared summarizing the results of the research and inspection and presenting recommendations for treatment. The HSR was compiled following the organizational guidelines of NPS *Preservation Brief 43: The Preparation and Use of Historic Structure Reports*, with modifications to organizational structure for purposes of this project.[4]

3. Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (Washington, D.C.: National Park Service, Historic Preservation Services, 1995).

4. Deborah Slaton, *Preservation Brief 43: The Preparation and Use of Historic Structure Reports* (Washington, D.C.: National Park Service, Technical Preservation Services, 2005).

History

Historic Background and Context

Early Development of Hope

On February 9, 1873, an Act of Congress granted the Cairo and Fulton Railway 40 acres of land in Hempstead County to construct a railroad station and to help defray the expenses related to the construction of the railroad.[5] Soon, development of the town of Hope began as tracks for the Cairo and Fulton Railway were laid from Argenta (now North Little Rock) to Fulton (approximately 15 miles southwest of Hope). The town of Hope was named after the daughter of the railroad company's land commissioner, James Loughborough.[6]

By 1873, the railroad company had drawn up the plat of the town, selling the first lots in August of that year, and a wood-framed train depot was under construction. At this time, the town consisted of a partially completed depot building, temporary worker housing, and two permanent homes.[7] The first house in the town was constructed in 1873 near the uncompleted depot. The depot was completed in 1874 after the St. Louis, Iron Mountain and Southern Railroad took over the Cairo and Fulton Railroad. The town of Hope was incorporated on April 8, 1875, with the first public officials elected approximately a month later on May 14.[8]

By 1890, several industries had begun to operate in Hope, including lumber mills, a wagon factory, and a cotton compress.[9] Hempstead County was known for its high quality cotton. The town was also home to two banks, a hotel, and an opera house.[10]

Hope continued to grow throughout the late nineteenth and early twentieth centuries. In 1880, the population of Hope was 1,233. By 1900, the population of Hope had increased to 1,644. The town's borders continued to expand, as the population of Hope more than doubled to reach 3,639 in 1910.

Construction of the Cassidy House

In 1917, Dr. H. M. Garrett, a former mayor of Hope, constructed a home for his son Hosea Garrett. The two-story wood-framed structure was situated at 117 South Hervey Street in Lot 7 of Block 25 (Figure 1 through Figure 3). At the time, Dr. Garrett resided at a home located in the same block at 404 West Second Street. The house at 117 South Hervey Street was one of

5. Hope Centennial Committee. *Hope's First Century: A Commemorative History of Hope, Arkansas, 1875-1975*. (Hope, Arkansas: 1975), 22.
6. http://www.encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=895, accessed December 2012.
7. Hope Centennial Committee, 8–9.
8. http://www.encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=895, accessed December 2012.
9. Cotton compresses were capable of reducing the size of cotton bales by half, allowing cotton to be transported by rail more economically.
10. http://www.encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=895, accessed December 2012.

several new homes constructed on the block during the 1910s. A similarly sized one-story home was built directly south of the house at 422 West Second Street between 1913 and 1919, while a two-story brick house was constructed at 414 West Second Street at this time.

The West House, constructed in 1876 by early Hope resident Captain Judson T. West, was located at 403 West Division Street. Situated on the corner of Division and Pine Streets, on the same block as the Cassidy House, the two-story Victorian house was demolished between 1913 and 1919 and replaced by a two-story brick house in the 1920s.

Hosea Garrett resided in the house at 117 South Hervey Street for an unknown period. Following his residency, the house served as a rental property for several years.

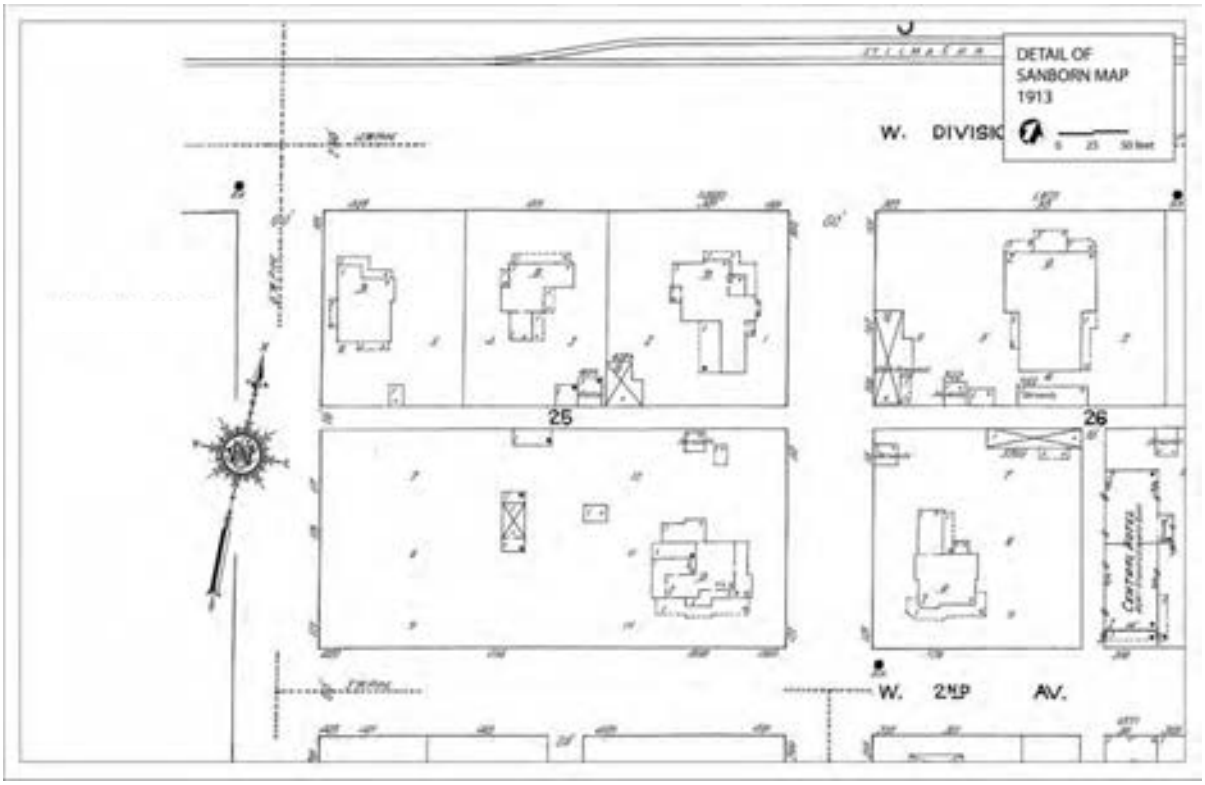


FIGURE 1. Detail of Sanborn Map, Hope, Arkansas, 1913. None of the buildings depicted in Block 25 exists today.

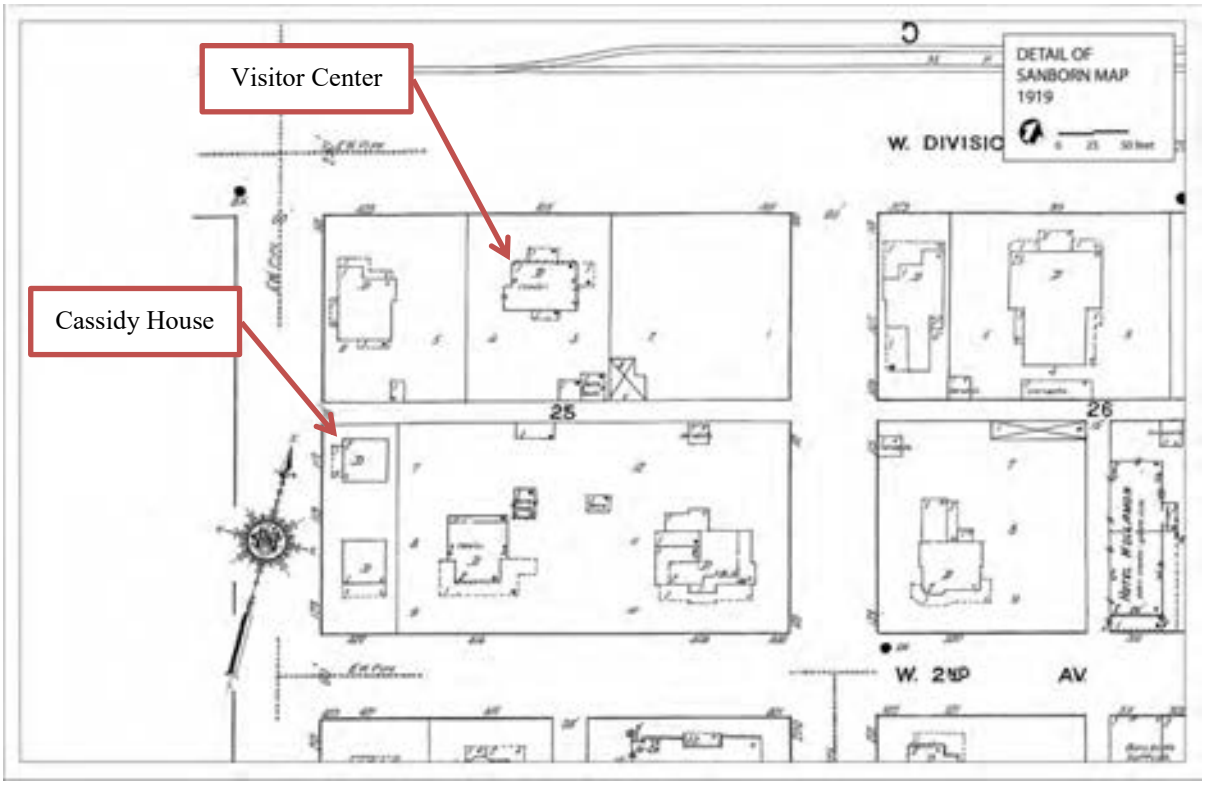


FIGURE 2. Detail of Sanborn Map, Hope, Arkansas, 1919. The Cassidy House was constructed in 1917 at the west edge of Block 25, with a similar house to the south. The present-day visitor center was also constructed in the 1910s facing Division Street.

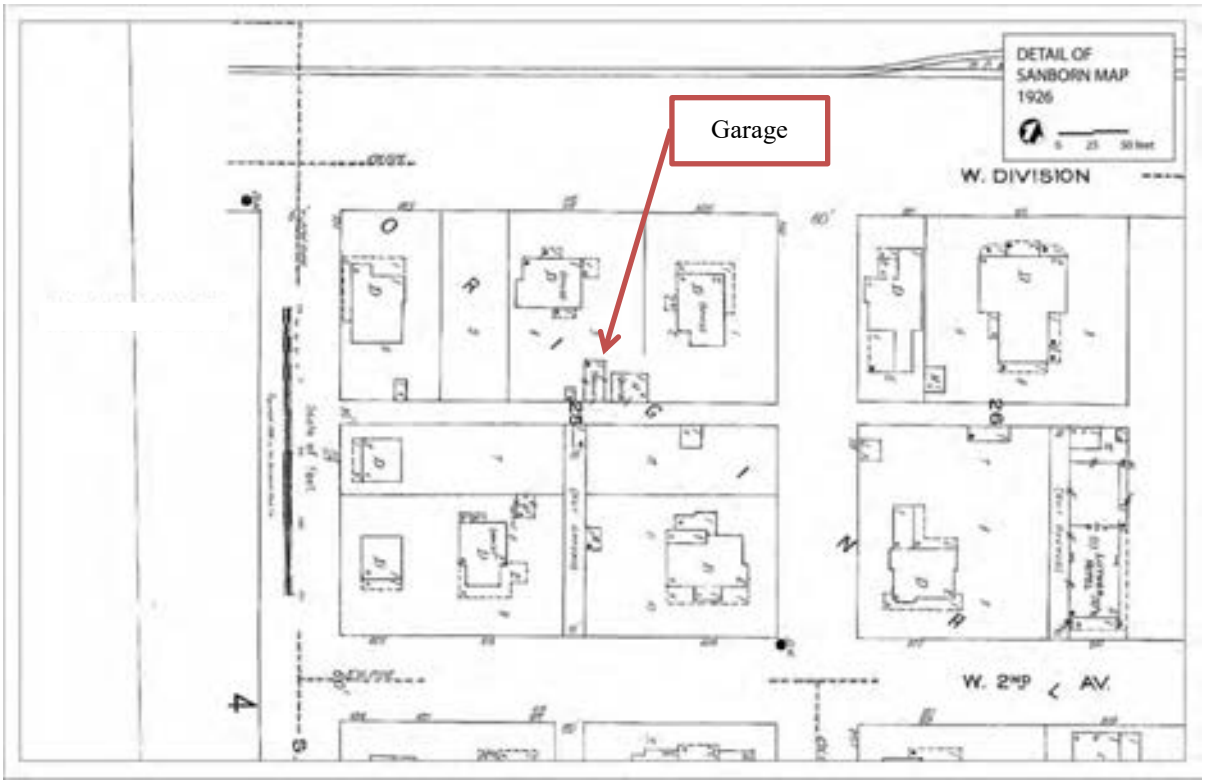


FIGURE 3. Detail of Sanborn Map, Hope, Arkansas, 1926. In the early 1920s, a new garage was built behind the present-day visitor center, and the existing privately-owned residence with detached garage at 405 Division Street was built.

Cassidy Family Occupancy

Bill Clinton's maternal grandfather, Eldridge Cassidy, ran his own ice delivery business, while Clinton's grandmother Edith was a nurse. In 1938, Eldridge and Edith Cassidy lost possession of their home on Foster Street in Hope. The Cassidys, along with their fifteen-year-old daughter Virginia, moved into the house at 117 South Hervey Street, which they rented.[11]

Following her graduation from Hope High School in 1941, Virginia Cassidy moved to Shreveport, Louisiana, to attend the Tri-State Nursing Academy. Virginia was certified as a Registered Nurse in 1943. That year, Virginia met William Jefferson "Bill" Blythe II, a heavy-equipment mechanic in the United States Army. Virginia and Bill married in September 1943, prior to his deployment to Europe in December of that year.[12]

Following the war, Bill Blythe secured a job as a heavy-equipment salesman in Chicago. In early 1946, he purchased a house and moved to Chicago, while Virginia temporarily remained at her parents' home in Hope due to her pregnancy. On May 17, 1946, Bill Blythe was killed in a car accident as he was traveling back to Hope. Virginia moved in with her parents following the death of her husband.[13]

Bill Clinton as a Resident of the Cassidy House. On August 19, 1946, recently widowed Virginia Blythe gave birth to William Jefferson Blythe III at Julia Chester Hospital in Hope. Virginia and her newborn son lived with her parents at the Cassidy House on South Hervey Street.

At this time, South Hervey Street was a narrow street of single-family residences. Hope, which had a population of 7,475 in 1940, was a bustling small town with approximately ten passenger trains arriving each day. A number of restaurants and shops lined the streets of downtown, and the town also featured three movie theaters and four hotels.

In January 1949, Eldridge and Edith Cassidy purchased the house on South Hervey Street from the Barlow family.[14] In late 1949, Virginia enrolled at the New Orleans Pediatric Hospital where she earned certification as a nurse anesthetist. She returned home occasionally, while young Billy Blythe, as young William Jefferson Blythe III was known, was sometimes able to visit her in New Orleans.[15]

As he grew older, young Bill often went with his grandfather to the neighborhood grocery Mr. Cassidy owned, which was located on the corner of Berry and Hazel streets near Rosehill Cemetery (Figure 4). Bill spent a great deal of time at the store as a young boy.[16]

While at home, Bill would spend time playing in the small yard south of the house. He also played in the backyard of his friend Vince Foster's house, which was located behind the Cassidy House at 414 West Second Street.[17]

11. Clinton Museum Association of Friends and the Clinton Birthplace Foundation, Inc. "President Bill Clinton's Family History," http://clintonchildhoodhomemuseum.com. Accessed December 17, 2012.
12. Ibid.
13. Ibid. Virginia reportedly received the phone call telling her of her husband's death on the telephone near the newel post at the bottom of the stairs in the Cassidy House living room.
14. Recorded Deeds for President Clinton's Birthplace Home, January 1949–April 1995. It is not known how long the Barlow family had possession of the house.
15. Clinton Museum Association of Friends and the Clinton Birthplace Foundation, Inc. "President Bill Clinton's Family History,"
16. Ibid.
17. Ibid.

FIGURE 4. Eldridge Cassidy (in shirt and tie) with an unknown patron in Mr. Cassidy's store in 1946. The photo resting on the shelf at the top center and slightly right is of President Clinton as a child. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

Bill Clinton as a Visitor to the Cassidy House. In 1950, Virginia Blythe married Roger Clinton, the owner of the Buick dealership in Hope. At this time, the family moved across town to a small one-story house at 321 East Thirteenth Street. Despite the move, Bill continued to spend a great deal of time at his grandparent's house. He also continued to play with friends from his old neighborhood.

In 1953, Roger Clinton sold the automobile dealership and moved his family to a 400-acre farm outside of Hot Springs, before moving into the city of Hot Springs in 1955. Bill remained close to his grandparents despite the move, and often spent weekends, summers, and holidays with his grandparents in Hope.

In August 1956, the Cassidys sold their home at 117 South Hervey Street to Violet Daugherty.[18] Eldridge Cassidy passed away the following year.

18. Recorded Deeds for President Clinton's Birthplace Home, January 1949–April 1995.

Continued Use as a Residence

After the Cassidy's sold the home in 1956, the building continued to be used as a residence. Violet Daugherty sold half of her interest in the property to Paul Daugherty in December 1956. She sold her remaining interest in the house to Paul Daugherty in 1961.[19] Paul Daugherty owned the house until 1963, when Frankie and Rosalie Arnett purchased the property.[20]

In 1972, Hervey Street was designated as an interstate access road following the completion of Interstate 30.[21] Heavier traffic on Hervey Street led to the development of commercial uses along the street, and many of the homes on Hervey Street across from the Cassidy House were demolished.

Ownership of the Cassidy House was transferred from Frankie and Rosalie Arnett to Elcie and Beatrice Arnett in 1976.[22] The Arnetts sold the home to Leslie and Anna Bell Terry in August 1977.

In 1982, 494 square feet of the property was acquired from the owners by the Arkansas State Highway Commission.[23] At this time, Hervey Street was widened and depressed to provide for a larger railroad viaduct, likely including construction of the concrete retaining wall in front of the Cassidy House. In an undated but circa early 1980s aerial view, the adjacent areas along Division Street appear freshly graded. Anna Bell Terry sold the home to A. C. and Annie Mae Burton in May 1985.[24]

19. Ibid.
20. Ibid.
21. Notes from discussion by Al O'Bright of the NPS MWRO with the Clinton Birthplace Foundation Board of Directors on July 13, 2010.
22. Recorded Deeds for President Clinton's Birthplace Home, January 1949–April 1995.
23 . Ibid.
24. Ibid.

William Jefferson Clinton Home Organization

On April 16, 1992, a fire occurred on the second floor of the Cassidy House.[25] The fire was thought to have been caused by electrical problems. The house was vacated following the fire and sold to Sammy and Mary Crabtree in December 1992.[26] Although the deed records the purchasers as the Crabtrees personally, they were acting on behalf of a local non-profit group, the William Jefferson Clinton Home Organization, Inc. (WJC Home Organization).[27] The WJC Home Organization engaged Cromwell Architects Engineers in 1993 to begin planning the renovation of the Cassidy House and the construction of a visitor center on the adjacent corner lot. The Crabtrees also acquired an adjacent house at the corner of South Hervey and West Division streets in 1994.[28] This residence was demolished circa 1996.[29]

FIGURE 5. The Cassidy House, circa 1993. Photo from Clinton Birthplace Foundation collection, stored in NPS visitor center.

FIGURE 6. The Cassidy House, circa 1993. Photo from Clinton Birthplace Foundation collection, stored in NPS visitor center.

Clinton Birthplace Foundation

The Clinton Birthplace Foundation (CBF) was founded in 1993.[30] In June 1995, the foundation purchased the Cassidy House, as well as the lot and house at the corner of Hervey and Division Streets, from the WJC Home Organization. As part of the transaction, the Clinton Birthplace Foundation also took over the pending contract

25. John Miller and Brian Dickerson, “Fire damages Clinton’s childhood home,” *Hope Star* vol. 71, no. 16, April 16, 1992.
26. Recorded Deeds for President Clinton’s Birthplace Home, January 1949–April 1995.
27. Letter from Joseph H. Purvis, President, Clinton Birthplace Foundation, to Pat Harris, editor of the *Hope Star*, dated March 1, 1995. See also Clinton Birthplace Foundation meeting minutes of May 4, 1995, and June 13, 1995.
28. Documentation of sale of the property shows that the house at 423 Division was purchased by Sammy Crabtree in 1994. This is the memorial garden site.
29. The house is shown as an existing one-story residence on a civil survey dated April 2, 1996. It was likely demolished shortly thereafter.
30. The Clinton Coordination Task Force began meeting in January 1992. This earlier informal group was succeeded by the Clinton Birthplace Foundation, which began meeting circa April 1993 and was officially incorporated as a nonprofit in late 1994. Clinton Birthplace Foundation Meeting minutes, April 16, 1993; Larry Rhodes, “Clinton Home Gains Nonprofit Status,” *Hope Star*, December 2, 1994.

with Cromwell Architects Engineers for renovation of the Cassidy House.[31] Renovation of the Cassidy House began in June 1995. Work was first completed on the exterior of the house, followed by interior renovation. Refer to the Chronology of Development and Use section, below.

In early 1996, the foundation also acquired an adjacent house at 415 West Division Street, the present-day visitor center.[32] Research to document the ownership of this property was conducted at the County Courthouse and the Hempstead County Title Company. A copy of the Warranty Deed from Georgia Bell and Ian Thacker for the sale of the property to the Clinton Birthplace Foundation was recorded in 1996. However, public records were not available to document previous sales of the property, previous owners, or specific building history at City of Hope Offices, Hempstead County Offices, or local historical societies.

FIGURE 7. The Cassidy House, circa 1994. Photo from Clinton Birthplace Foundation collection, stored in NPS visitor center.

FIGURE 8. The Cassidy House, circa 1994. Photo from Clinton Birthplace Foundation collection, stored in NPS visitor center.

In 1996–1997, the house at 415 West Division Street was renovated and opened as a visitor center.[33] In conjunction with the renovation of this house, a small 1920s garage on the site was demolished and replaced with a new public comfort station on the same footprint as the garage and with a similar exterior appearance. The visitor center and renovated Cassidy House opened to the public on June 1, 1997.

In March 1999, President Bill Clinton visited Hope and attended the dedication of the site (Figure 9 and Figure 10).

31. Clinton Birthplace Foundation meeting minutes of May 4, 1995, reported that Sammy Crabtree had offered to transfer the birthplace home property as well as the corner lot to the Clinton Birthplace Foundation. The CBF board approved the transfer, noting that title to both properties was in Sammy Crabtree's name. The June 13, 1995, CBF meeting minutes record that the acquisition of the two properties had been completed and would be legally recorded within the next week. No deed records for this sale have been located.
32. Foundation meeting minutes of January 26, 1996, discuss finalizing a purchase price for the present visitor center, then owned by Georgia Bell. The transaction was finalized in March; see Warranty Deed dated March 12, 1996, vol. 643, pages 455–457.
33. On September 30, 1996, the "Bell Dwelling" is listed as an asset worth $60,000 on the foundation's balance sheet, and the meeting minutes discuss interior demolition work in progress at that building.

FIGURE 9. Bill Clinton speaks at the dedication of the Cassidy House, March 12, 1999. White House photograph, P70697_18.

FIGURE 10. Bill Clinton in the living room of the Cassidy House, March 12, 1999. White House photograph, P70702_06a.

A garden in honor of Virginia (Cassidy) Clinton Kelley, who died on January 6, 1994, was constructed directly north of the Cassidy House circa 1999–2000.[34] Although Cromwell Architects Engineers had developed plans for an elaborate formal garden at this site in the mid-1990s, their design was not followed, and a simpler arrangement of rose bushes, other plantings, and brick pavers was installed.

In 2004, a black-painted metal fence was installed around the site to restrict access during hours in which the visitor center and house were closed.[35]

National Park Service Ownership

On March 30, 2009, an Act of Congress authorized the establishment of President William Jefferson Clinton Birthplace Home National Historic Site as a unit of the National Park Service. The authorization was contingent on the Secretary of the Interior acquiring the site by donation from the Clinton Birthplace Foundation.

President William Jefferson Clinton Birthplace Home National Historic Site was established on December 14, 2010, when the Clinton Birthplace Foundation donated the site to the United States. The site was officially dedicated on April 16, 2011. President Bill Clinton and Secretary of the Interior Ken Salazar were present at the dedication ceremony.

34. Receipts in the foundation's files show plant purchases in 1999. Oral interviews indicate that garden was planted by volunteers; photographs and the oral interviews suggest that the garden was substantially complete by 2000.

35. Notes from discussion by Al O'Bright of the NPS MWRO with Martha Berryman of the Clinton Birthplace Foundation on July 13, 2010.

Chronology of Development and Use

Cassidy House

Original Construction and Occupancy, 1917–1938. The Cassidy House was constructed by Dr. H. M. Garrett for his son Hosea Garrett in 1917. As completed, the two-story wood-framed house was an example of the American Foursquare style that was popular in the United States for residential architecture during the early twentieth century. An American Foursquare house is generally square in plan, with a symmetrical facade and a low-pitched hipped roof. Hipped corners and one-story front porches are also common features. The front door was often centered on the main facade of the house, while the windows were usually double-hung.[36]

The house was constructed with a number of details common to buildings in Hope. The soils in Hempstead County are known to contain unstable clays that expand and contract based upon moisture content.[37] In response to these soil conditions, houses such as the Cassidy House and the visitor center are supported on shallow foundations, without basements, and with the first floor elevated above a crawl space at grade. Rigid finishes such as plaster were not typically used. Rather, in buildings like the Cassidy House and the visitor center, horizontal half-lap wood boards were nailed to the wall studs, cotton mesh fabric was adhered to cover the boards, and wallpaper was hung over the fabric. The ceiling wallpaper, typically white, was also applied to approximately the top 12 inches of the wall with a typically 2-inch-wide border over the seam between the ceiling and the wall papers.[38] As recalled by Joe Purvis, "Back then, plaster was money. . . . The soil in Hope was very bad and plaster would only crack if it was used."[39]

Based on physical conditions observed currently, photographic documentation of renovation work in the 1990s, and comparison with other buildings in the area, the house was built with conventional wood platform framing, using diagonal exterior solid wood sheathing, on a brick masonry foundation. The original siding and trim were wood. The interior walls and ceilings were finished with solid wood planks covered with wallpaper. The original wood double-hung windows had a twelve-over-one configuration.

Based on the "x" indication for the building on the 1919 Sanborn map, the original roof covering was likely wood shingles. The footprint of the house indicated on the Sanborn map matches the existing plan.

Physical changes that may have occurred to the building after initial construction, but prior to the 1940s, are not documented in available archival records. Given the length of time, it is likely that much repair work, including perhaps replacement of the roof, would have been necessary to maintain the house.

36. Virginia and Lee McAlester. *A Field Guide to American Houses*. (New York: Alfred A. Knopf, 2006), 439.
37. The specific soil type at the site is identified as Sawyer loam, with a slope of 1 to 3 percent. The water table is typically about 18 to 30 inches below grade. The soil includes loam overlying silty clay loam. The USDA notes, "This soil has poor potential for most urban uses. . . . Low strength and moderate to high shrink-swell potential are severe limitations for dwellings. . . ." Soil Conservation Service, *Soil Survey of Hempstead County, Arkansas* (U.S. Department of Agriculture: 1979).
38. This technique is discussed in the July 1, 1993, video interview of Virginia Kelley.
39. Interview with Joe Purvis, October 18, 2012. See Appendix E.

Cassidy Family Occupancy, 1938–1956. Eldridge and Edith Cassidy, together with their fifteen-year-old daughter Virginia, moved into the rented house in 1938. The appearance of the house in the late 1940s and early 1950s is documented in Cassidy-Clinton family photographs (Figure 11 through Figure 20). Based on a review of these photographs, the following description of the exterior configuration and materials has been developed.

The building had a brick masonry foundation in running bond (refer to Figure 16), with some brick units spaced apart to create vent openings for the crawl space (refer to Figure 17). At the top of the foundation, the wall had a continuous 8- to 10-inch-high skirt board with a sloped drip cap, painted to match the wall trim (refer to Figure 16).

The exterior walls had beveled wood siding with an approximate 7- to 8-inch exposure (estimated based on the number of boards aligning to the window opening). The siding was mitered at the corners of the building and, based on archival photographs, appears to have been painted white or a similar light color.

Each window and door had painted wood trim consisting of a rectangular sill, rectangular jamb, and head trim with an offset at the midpoint of the profile, and metal head cap flashing (refer to Figure 13 and Figure 16). Based on archival photographs, the trim was painted a contrasting color, darker than the siding.

The windows consisted of wood-framed double-hung units, generally twelve-over-one. Although difficult to judge based on archival photographs because of the presence of wood-framed screens at all openings, the window sash and the screens may have been painted an accent color, darker than the wood trim (refer to Figure 13 and Figure 15).

The front porch along the west side of the house had corner piers on brick masonry bases, with wood siding cladding above (refer to Figure 11). The porch was enclosed by screening in a wood frame, painted white. At the south end was a screen door. Three concrete steps led up to this door from grade. The screen door itself had five vertically oriented screen panels at the lower half, and a single upper screen panel covered by a diagonal aluminum grille (refer to Figure 14 and Figure 17). Within the porch, the front door was apparently wood-framed with fifteen glass lights (refer to Figure 17). An exterior light fixture consisting of a metal base and cylindrical glass globe was mounted to the west wall of the house just south of the door opening (refer to Figure 17).

The back porch at the northeast corner of the house was also enclosed by screening. Four wood-framed steps ascended from grade to a door on the north wall of the house. The screen door of the porch had two lower screen panels and one large upper screen panel (refer to Figure 16). The east wall of the porch apparently included a solid knee wall and upper screen panels (visible through the screen door in Figure 16).

A whole-house fan was present at the north wall to provide summer cooling. As recalled by Joe Purvis, in order to keep the interior of the house relatively cool, all of the doors and windows would be opened, and the whole-house fan, together with floor and table fans, would be operated to keep air constantly circulating.[40]

The main roof is not visible in any available archival photographs, so the exact configuration, materials, and condition of the dormer and chimney during the period of Cassidy family occupancy is unknown. Also, there are no

40. Interview with Joe Purvis, October 18, 2012. See Appendix E.

available overall views of the north or east sides of the house, so the configuration of window and door openings cannot be confirmed, nor is the configuration of the whole-house fan at the second floor on the north wall documented.

FIGURE 11. One-year-old Billy Blythe in the front yard of the house in 1947. The wood siding-clad square front porch column supported by a brick base is visible, as well as the screened front porch. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

FIGURE 12. Billy Blythe in the side yard with unknown companion, playing in his pool (May 1949). The side yard, fence, Cassidy House (left), Vincent Foster House (right, background), and garage of an adjacent house (right, foreground) are visible. This image also shows the exterior cladding, windows, and trim of the Cassidy House. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

FIGURE 13. One-year-old Billy Blythe in 1947, with the west and south sides of the house visible in the background. The photo shows the front porch, main facade, and configuration of the windows and trim. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

FIGURE 14. Two-year-old Billy Blythe in spring 1948, in the south side yard of the Cassidy House. This view, looking northwest from the front yard, shows another house across Hervey Street in the background. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

FIGURE 15. Billy Blythe and two young friends in the side yard of the Cassidy House (August 1949). This image shows some of Billy's play equipment, including a swing set, wagon, and spinning top. Note the Cassidy House in the background, with the windows with screens and exterior wood siding visible. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

FIGURE 16. Billy Blythe sitting on the back porch steps of the Cassidy House, circa 1949, view looking southeast. The steps, screen door, and siding of the enclosed back porch are visible. Also visible in the background (and through the porch screens) are some of the large trees in the backyard of the house. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

FIGURE 17. Three-year-old Billy Blythe playing in the front yard of the Cassidy House, August 25, 1949. The screened front porch is visible in the background. Note the divided light front door visible behind the porch screen, and the brick house foundation with vent detail. Also note porch light to the south of the door opening. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

FIGURE 18. Three-year- old Billy Blythe in his wagon in the south side yard of the Cassidy House, with the house and play equipment visible in the background. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

Available interior archival photographs from the period of significance show the living room only. One set of views shows the south end of the living room (Figure 19). The living room finishes included a stained and varnished wood floor with the boards running north-south, a flat wood base with shoe painted a light color, striped wallpaper, a three-part curved crown molding painted to match the base, and a plain paper ceiling finish. Striped curtains obscure most of the south window group, but trim painted to match the base and crown molding is visible, as well as one dark metal window lift.

FIGURE 19. Billy Blythe in front of the family Christmas tree in the living room of the Cassidy House, December 7, 1949. This image shows the fabric and pattern of the curtains as well as the wallpaper. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

Another set of views shows the fireplace area (Figure 20). The same wood flooring, painted wood base, and wallpaper are visible. The fireplace hearth consists of a black marble slab resting atop the wood flooring. The painted wood mantelpiece has fluted pilasters at each side, an applied oil lamp decorative detail at the center of the head, and a projecting cap. A matching black marble inner surround defines the firebox. In front of the fireplace is a three-part brass screen. Within the firebox is a brass and ceramic heater, with a gas line visible running to the heater. A gas heater of this type would have likely required a flue, so it is assumed that the brick chimney connected to this fireplace vented above the roofline at this time.

FIGURE 20. Billy Blythe in front of the fireplace in the living room of the Cassidy House, December 7, 1949. The image shows the fireplace mantle (decorated for Christmas), wallpaper, and furnishings including the mirror and side table with lamp. Photo courtesy of the Clinton Family Photo Collection, William J. Clinton Presidential Library and Museum Archives, Little Rock, Arkansas.

The configuration of the kitchen and adjacent spaces during the period of significance is not documented. Non-historic elements were removed from the kitchen during the 1996 interior renovation (discussed in more detail below), and the location of partition walls was changed. Based on Virginia Kelley's recollection in 1993, there was some sort of laundry/utility area adjacent to the kitchen, and the back porch was originally open and contained an icebox. As recounted by Stan Jackson:

> And [we] took the [wall]paper down and saw where [previous occupants] had cut some walls out and moved things around. We weren't real sure what had happened there. Virginia Kelley did [see] the house before we did any of the renovations. . . . She [remembered] the refrigerator . . . and there were dry[ing] racks? But they were [washing] clothes inside? If they didn't have [a basement or outbuilding] and did their ironing and that kind of stuff in that little area. So we tried to recreate that as best we could. The back porch which ended up, we had to make that into a utility area and I think that is where the breaker box is all that is actually a back porch that was open. That is where I think they had their ice box. . . .[41]

Changes After Cassidy Family Occupancy, 1956–1992. No written documentation or drawings have been located to specifically document changes to the Cassidy House that occurred after 1956 and prior to the 1990s. The following changes are known to have occurred, based on a visual comparison between the Cassidy-Clinton family photographs taken in the late 1940s and early 1950s (Figure 11 through Figure 20, above) and photographs taken prior to work on the house in the mid-1990s (Figure 21 through Figure 25).

- The original wood siding was overclad with cement asbestos shingle siding. This type of siding, which had been in use since the 1910s, would have been available in 1956 and well into the 1980s. The replacement synthetic siding covered over the original wood skirt trim at the base of the wall and included small quarter-round wood trim at the outside corners of the building.
- The front porch screening was removed, and an unpainted wood railing was built on the north and west sides of the porch.
- The roof was re-covered with brown-colored asphalt shingles.
- The brick masonry chimney was removed above the roofline.
- All exterior wood elements were painted white.
- Wood-framed screens at all windows were removed.
- The front door present during the Cassidy family occupancy was removed and replaced by a solid panel door (refer to Figure 7).
- The easternmost window on the second floor, south wall, was replaced with a one-over-one double-hung window.
- The three second floor windows on the west facade were replaced by horizontal-muntin two-over-two double hung windows with two-light transoms above, within the original window opening.
- The back porch was enclosed, and a historic door perhaps salvaged from another location was installed at the north exterior wall. New wood steps were built from this door to grade (refer to Figure 23).

41. Telephone interview with Stan Jackson, December 13, 2012. See Appendix E.

FIGURE 21. West facade of Cassidy House, June 1993. Note the poor condition of the roof overhangs, the non-historic windows at the west side of the second floor, and the flat panel entrance door. Photo from National Register Nomination, Bill Clinton Birthplace, 1994.

FIGURE 22. South exterior side of the Cassidy House, June 1993. Note the concrete sidewalk and steps leading to the front porch and the wall-mounted utilities between the first floor windows. Photo from National Register Nomination, Bill Clinton Birthplace, 1994.

FIGURE 23. North exterior side of Cassidy House, June 1993. Note the fan enclosure (with no fan mechanism) and the historic salvaged door at the back porch entrance. An exterior light is mounted to the wall above the door. Non-historic wood steps lead up to this door from grade. Photo from National Register Nomination, Bill Clinton Birthplace, 1994.

FIGURE 24. South side wall of the Cassidy House prior to renovation, circa 1994–1995. Note the original divided-light window sash, original wood trim, and non-original siding. Photo by Charley Penix from the Clinton Home Restoration Scrapbook by Cromwell Architects, 1997, page 12.

FIGURE 25. Main facade of Cassidy House prior to renovation, circa 1994–1995. Note the non-original window sash at the second floor and unpainted porch railing. Photo by Charley Penix from the Clinton Home Restoration Scrapbook by Cromwell Architects, 1997, page 13.

As noted above, the house was damaged by fire on April 16, 1992. Based on photographs taken in the 1990s (Figure 26 through Figure 33) and the mid-1990s renovation drawings, interior changes in the period from 1956 to 1992 included the following.

- Wood veneer paneling was added to the living room, dining room, kitchen, and west bedroom walls, over previous wallpaper finishes.
- Interior trim in the living room and dining room, including the stairs and balustrade, was painted dark brown.
- Circa 1960s–1970s, new built-in plywood cabinetry with a plastic laminate countertop was installed along the east wall of the kitchen.
- Acoustic tiles were adhered to the ceiling in the dining room, west bedroom, and likely other spaces.
- The 1992 fire caused severe damage, especially in the west bedroom. Damage occurred to the wood flooring, and the walls and ceiling were smoke stained. Apparently, no significant interior repairs were implemented immediately following the fire, and fire and smoke damage were readily apparent at the start of the 1995–1996 renovation (refer to Figure 31).
- The configuration of the hallway, kitchen, and back porch may have been altered from its original design. Apparently, based on the available early 1990s photographs, the back porch was converted to a fully enclosed space. (Refer to discussion of 1995–1996 interior renovation, below.)
- A new closet was created by a new partition wall along the south end of the west bedroom.
- The bathroom fixtures were apparently replaced.[42]
- In 1995, a five-arm chandelier was present in the dining room (refer to Figure 29). The style of this fixture suggests that it potentially could have dated to the period of significance. This chandelier no longer exists.
- In 1995, a gas heater was present in the dining room (refer to Figure 29). This heater potentially could have dated to the period of significance. This heater no longer exists.

42. The condition of the bathroom prior to the 1995–1996 work is not documented, but Terry Huitt described it as “a lot of cheap fixtures” appropriate to the use of the building as a rental house. E-mail correspondence with the authors, July 1, 2013.

FIGURE 26. Interior of the living room, June 1993. Note the dark painted wood trim, wood veneer paneling over wallpaper, and previously removed ceiling finish. The French doors to the dining room are intact. Photo from National Register Nomination, Bill Clinton Birthplace, 1994.

FIGURE 27. View of interior living room looking south, August 8, 1995. The windows have already been replaced as part of the exterior renovation. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 20.

FIGURE 28. View of interior living room looking north toward the staircase, August 28, 1995. This view shows the appearance of the interior after the removal of ceiling wallpaper finishes. At the walls, portions of non-original wood veneer paneling have been removed, exposing older wallpaper finishes. The wall at the right side of the image is where the fireplace is located. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 20.

FIGURE 29. View of the dining room looking east, August 28, 1995. At the walls, non-original wood veneer paneling is present. Note chandelier and acoustic tile finish at ceiling. Also note the gas heater at the east wall. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 21.

FIGURE 30. View of the kitchen looking southeast, August 28, 1995. At the walls, non-original wood veneer paneling is present. Note the built-in cabinets along the east wall. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 21.

FIGURE 31. View of the west bedroom looking north, August 28, 1995. Note the fire damage, acoustic tile ceiling, and remnants of wood veneer paneling. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 22.

FIGURE 32. View of the south bedroom looking south, August 28, 1995. Note the acoustic tile ceiling and remnants of wallpaper at wood plank wall cladding. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 23.

FIGURE 33. View of the north bedroom looking east, August 28, 1995. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 23.

William Jefferson Clinton Home Organization, 1992–1995. During the two-and-a-half years that the Cassidy House was owned by Sammy and Mary Crabtree on behalf of the William Jefferson Clinton Home Organization, no physical changes to the house are known to have occurred.

Clinton Birthplace Foundation, 1995–1997. Immediately upon finalizing its purchase of the house in June 1995, the Clinton Birthplace Foundation began a major renovation of the Cassidy House. The work was completed in two phases. The exterior of the house was renovated

as part of the first phase, while interior work was completed in a second phase.

Exterior Renovation, June 1995 to fall 1995. Beginning in June 1995, the exterior of the house was completely renovated (Figure 34 through Figure 45).

The original brick masonry foundation, which was severely deteriorated, was demolished to grade and completely rebuilt using new bricks. At the walls, the non-original cement asbestos siding, as well as the underlying original wood siding, was removed.[43] New wood siding was installed. The original window sash and all interior and exterior window trim was removed and discarded, and new windows and exterior trim were installed (except for the three-light transom above the front door). The skirt trim at the base of the exterior walls was not replaced, and vertical corner trim was added. The original window trim profile and design was not replicated in the new trim. The siding was painted white, and the trim and windows were painted green, based on a color scheme recalled by Virginia Kelley.

At the west facade, the original porch was demolished to grade, and rebuilt on a new brick foundation. The construction and condition of the brick veranda piers matches the other new masonry on the building. Historic photographs from the period of significance show chipped bricks and irregular mortar joint widths that are not apparent in the existing masonry construction (e.g., refer to Figure 11 and Figure 17). Additionally, photographs from the 1995 work, showing the piers with missing bricks, indicate that the brick piers supporting the veranda were likely entirely rebuilt in 1995 (refer to Figure 39). It is believed that the brick piers were only rebuilt above grade, similar to the condition observed at the main foundation. Circa 1996–1997, wood-framed steps were added to the west side of the porch and a wood-framed ramp was added to the north end of the porch. These new elements were added to facilitate contemporary visitor access to the house; no access to the porch from either location existed historically.

A salvaged older door was installed at the front entrance to the house. Prior to the work, this door was located at the back porch entrance (refer to Figure 23). This door may not have been present at the house during the period of significance and may have been salvaged from another building for use at the back porch prior to the 1990s.

The roof was replaced with green asphalt shingles, and the fascia and soffit wood cladding was replaced. At the north facade, the whole-house exhaust fan enclosure was completely rebuilt. The exterior work was substantially completed by fall 1995.

FIGURE 34. Excerpt of Cromwell Architects Engineers drawing A3.1 showing the west elevation renovation. Although removal of the chimney is indicated on these drawings, photographs from prior to the project indicate that the chimney had already been removed prior to the work. Refer to Figure 5 through Figure 8.

43. The asbestos siding is clearly visible in photographs from the early 1990s. However, Stan Jackson had no recollection of this material. Telephone interview with Stan Jackson, December 13, 2012. See Appendix E.

FIGURE 35. Excerpt of Cromwell Architects Engineers drawing A3.1 showing the south elevation renovation.

FIGURE 36. Excerpt of Cromwell Architects Engineers drawing A3.1 showing the east elevation renovation.

FIGURE 37. Excerpt of Cromwell Architects Engineers drawing A3.1 showing the north elevation renovation.

FIGURE 38. Photo showing the south side exterior wall of the Cassidy house during renovation, circa June 1995. The non-original cement asbestos siding has been removed, exposing remnants of the original wood siding, as well as portions of the underlying diagonal wood sheathing. The original window sash were still in place. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 16.

FIGURE 39. Photo showing the south side wall during renovation, with the front of the house at left, circa June 1995. The image shows the partially demolished front porch, with the original brick column bases intact. The original windows were still in place in this image, however the exterior siding had been removed. Also note the pile of debris in the yard. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 16.

FIGURE 40. Image of the north side wall of the Cassidy House during construction, July 7, 1995. This view shows scaffolding in place, new wood siding in the process of installation, and the opening for the whole house fan. Note that the window sash and door have been removed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1995-1996, page 17.

FIGURE 41. New siding and roof installed on the south side wall, July 7, 1995. Window openings are covered by temporary board-ups, and the front porch roof structure has been completely removed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 17.

FIGURE 42. View from the southwest as the exterior work neared completion, circa fall 1995. Image shows the new siding completely installed, new windows, and front porch reconstructed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 18.

FIGURE 43. View from the east as the exterior work neared completion, circa fall 1995. Note that the mechanical closet access door had not yet been created. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 19.

FIGURE 44. View from the north as the exterior work neared completion, circa fall 1995. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 18.

FIGURE 45. Main facade of Cassidy House as the exterior work neared completion, circa fall 1995. Image shows the front porch roof and columns completed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 19.

Interior Renovation, August 1995 to April 1996. Following the completion of the exterior work, the interior of the house was renovated (Figure 46 through Figure 60). This work included stripping the original wallpaper and wall finishes down to the horizontal tongue and groove wallboard, the installation of gypsum board over existing walls, and replacement of the plumbing and electrical systems. Most of the interior door, window, and baseboard trim was replaced with new material, shimmed outward to account for the thickness of the added gypsum board. Subsequent to this work, many of the interior doors do not fully open, as they bind on the thicker trim.

For each room, new wallpaper was selected from standard production patterns to match fragments of historic wallpaper recovered during the demolition. As recounted by Stan Jackson:

> The unique thing is that when we started demolition . . . there was probably thick layers of wallpaper on that so we actually got down to the original wall paper. That was the pattern, if you look at photographs, there is one really good photo of Bill Clinton standing in the living room, that wallpaper, we actually got that wallpaper. That is where we tried to replicate every room in the house.[44]

In the video dated July 1, 1993, of Virginia Kelley touring the house before the work commenced, the wallpaper in the closet in her parents' bedroom (room 205) was identified by Mrs. Kelley as possibly being the same as that of the room during the period of significance.

In the living room (101), the fireplace mantle was reconstructed based on historic photographs (refer to Figure 20) as well as a ghosted paint outline that was discovered when later non-original wall finishes were removed.[45]

In the west bedroom (204), a non-original closet at the south end of the room was removed. Virginia Kelley recalled that this closet did not exist when she lived in the house.[46]

Also as part of the interior work, the non-original plumbing fixtures of the second floor bathroom were replaced with period appropriate fixtures. In the kitchen, new wood cabinets were constructed.

The kitchen and back porch area was significantly reconfigured. The rationale for this renovation is not documented. A new wall was added to divide the kitchen from the hall, and a small closet in the kitchen was removed. The hall itself was enlarged by removal of a partition wall. A door between the hall and back porch was closed up, and the southern portion of the porch was enclosed to create a new mechanical closet, accessed through a new door opening created on the east exterior wall. The back porch was retained in an enclosed configuration, rather

44. Telephone interview with Stan Jackson, December 13, 2012. See Appendix E. Samples of the historic wallpaper were retained for future reference but were later destroyed in a fire.
45. Ibid.
46. Ibid.

than restoring the original screened enclosure seen in historic photographs.

Most areas of existing hardwood flooring were refinished, but fire-damaged floorboards in the west bedroom were replaced, and new flooring was installed in the hall, kitchen, and bathroom. The beadboard wall and ceiling cladding of the north bedroom were completely replaced.

A limited number of existing interior elements were retained during the 1996 project. In most areas, the existing hardwood floors were retained and refinished. In the hallway between the kitchen and dining room, the built-in china cabinet was retained and repainted, as was existing beadboard wall cladding in the kitchen. Most interior doors were retained and repainted. The staircase to the second floor and its balustrade were also retained and repainted.

The interior architectural work was substantially completed by August 1996.

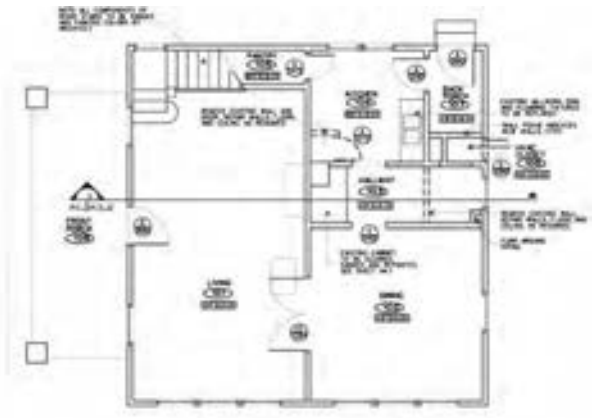


FIGURE 46. Excerpt of Cromwell Architects Engineers drawing A1.1 showing the first floor renovation. Note dashed and hatched partitions at the hallway, kitchen, and back porch showing existing partitions removed and new partitions constructed.

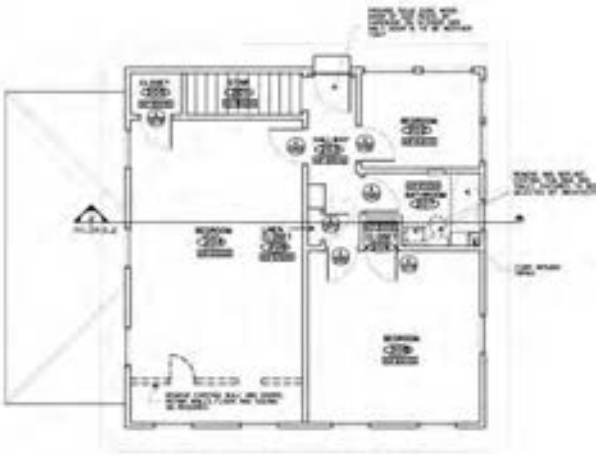


FIGURE 47. Excerpt of Cromwell Architects Engineers drawing A1.1 showing the second floor renovation.

FIGURE 48. View of interior living room looking south, February 5, 1996. Gypsum board has been installed, and new wood window trim is in place. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 24.

FIGURE 49. View of interior living room looking north February 5, 1996. New gypsum board finishes and new wood window trim has been installed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 24.

FIGURE 50. Interior of the kitchen looking to dining room beyond, February 5, 1996. A new partition wall has been built to divide the kitchen from the hallway. Note original beadboard wall cladding preserved at right. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 25.

FIGURE 51. Interior of the bathroom, February 5, 1996. All interior finishes and fixtures have been removed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 25.

FIGURE 52. Stairwell to second floor, February 5, 1996, showing new gypsum board. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 26.

FIGURE 53. Upstairs corridor, February 5, 1996. Note that original interior doors and door frames remain in place, but wall finishes and trim have been removed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 26.

FIGURE 54. Interior of the north bedroom, February 5, 1996. Entirely new wall and ceiling beadboard cladding have been installed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 27.

FIGURE 55. Interior of the kitchen, March 4, 1996. New built-in casework is in the process of being built. Surviving original beadboard wall cladding has been cut to allow plumbing to be run in the east wall. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 28.

FIGURE 56. Interior of the west bedroom, March 4, 1996. New gypsum board finishes have been primed, and fire-damaged portions of the hardwood floor have been replaced. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 30.

FIGURE 57. View of interior living room looking south showing the room near completion, April 1, 1996. Interior finishes are in place, new windows have been installed, new wood trim has been installed and painted, and the floor refinished. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 31.

FIGURE 58. Interior view of living room looking north showing the room near completion, April 1, 1996. The staircase has been repainted, and new wallpaper has been installed. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 31.

FIGURE 59. Interior of the kitchen near completion, April 1, 1996. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 32.

FIGURE 60. Interior of the hallway near completion, April 1, 1996, showing repainted built-in china cabinet. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 32.

No documentation has been discovered regarding changes to the house between the time it opened to the public in June 1997 and the establishment of the National Historic Site at the end of 2010. Sometime after 1997, the rear porch entrance door was replaced with the existing five-panel door; when the exterior renovation was first completed in 1995, a flat panel door was installed at this location.

National Park Service, 2011–2013. Since the beginning of NPS stewardship of the site in January 2011, the only work completed at the Cassidy House other than routine maintenance was the replacement of the roof in November 2011 and the installation of a new HVAC system, also in 2011. The new asphalt shingle roof matches the color and design of the roof installed as part of the 1995–1996 renovation. Additionally, the exterior wood trim and siding was repainted in 2012, matching the 1995–1996 color scheme.

Visitor Center

Initial Construction and Use as a Residence, 1910s–1996. Limited information is available regarding the history of the house now used as the visitor center. Sanborn Fire Insurance maps indicate that the residence was most likely constructed in the late 1910s. The 1913 map shows a different building on the site, with a different footprint and full-width front porch (refer to Figure 1). By the time the 1919 map was prepared, the existing building was present (refer to Figure 2). The Sanborn map indicates that the house had its current footprint at that time, with open porches on the north, east, and south sides. A closed dot symbol on the plan indicates that the building had a composition roof (likely asphalt shingles).

No documentation has been located to date to describe the history of the house from the 1910s to the 1990s. Due to the presence of vegetation and a house and garage located at 423 Division (the present-day memorial garden site), the visitor center house is not visible in Cassidy-Clinton family photographs from the period of significance.

Drawings were prepared prior to the renovation of the house in 1996–1997 for use as a visitor center. Based on these drawings, the original rear porch had been partially enclosed prior to the 1990s to form a breakfast room extension of the kitchen. Also, it appears that the two brick masonry chimneys had been demolished above the roofline prior to the 1990s, as these chimneys are not depicted on the Cromwell drawings. Upon its acquisition by the Clinton Birthplace Foundation in March 1996, the house included a living room, dining room, kitchen, bathroom, two bedrooms, and screened porch at the first floor, and one bedroom and bathroom at the second floor (Figure 61 and Figure 62).

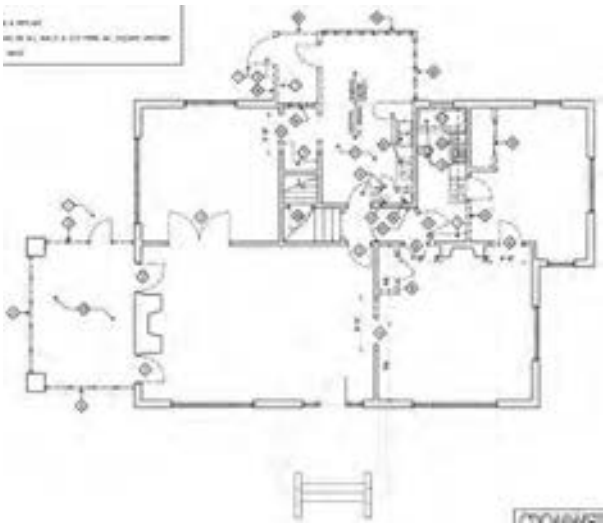


FIGURE 61. Excerpt of Cromwell Architects Engineers drawing A1.2 showing the first floor demolition for the visitor center.

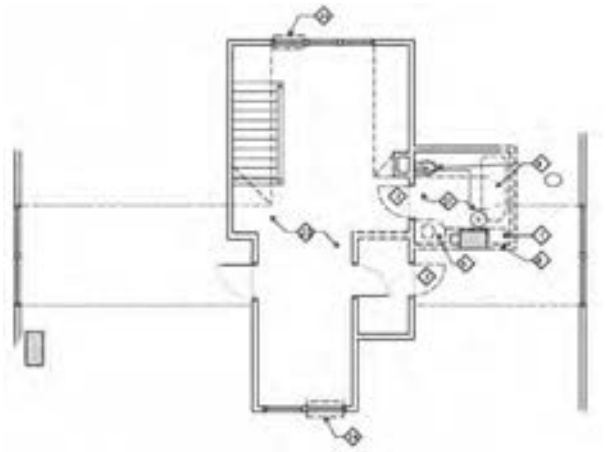


FIGURE 62. Excerpt of Cromwell Architects Engineers drawing A1.2 showing the second floor demolition for the visitor center.

Clinton Birthplace Foundation Renovation, Fall 1996–June 1997. The foundation undertook a renovation of the building to serve as a visitor center. Not all of the work shown on the Cromwell Architects Engineers drawings was completed. In conjunction with the renovation of this house, a new comfort station was constructed to house public restrooms. As part of the construction of the new comfort station, an original garage on the site was apparently demolished.[47]

Limited exterior work was completed, including replacement of the east porch screen enclosure with new windows and a door, construction of a new wood-framed ramp to access the east porch, demolition of the partially enclosed south porch, and construction of a temporary plywood infill wall at the location of the porch (Figure 63 and Figure 64).

FIGURE 63. View of the visitor center and comfort station from the west, circa summer 1997. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 39.

47. Cromwell Architects, "Clinton First Home Renovation," Sheet A1.4, Bathroom Facility Plans (Little Rock, Arkansas, October 11, 1996). An existing one-story garage outbuilding with the same footprint as the comfort station is shown on civil survey drawings of the site prepared in the early 1990s as well as the older Sanborn maps.

FIGURE 64. View of the south side of the visitor center showing east porch entrance ramp, circa summer 1997. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 39.

On the interior, doors were removed at the former living room (now reception, room 100) to allow uninterrupted access to the east porch, the dining room (bookstore, room 110), and north bedroom (exhibits, room 103). The door opening between the living room and the north bedroom was widened. Partitions defining closets in the two bedrooms were removed. Other partitions and door openings were reconfigured at the original bathroom (storage, room 106) and south bedroom (office, room 105). All of the existing bathroom and kitchen fixtures were removed, and mechanical systems were replaced, with new air conditioning to the first floor only. Throughout the first floor, gypsum board wall and ceiling finishes were installed, wood floors were refinished, and interior trim was repainted. Changes to the second floor were limited to the addition of polystyrene insulation at the two storage rooms and demolition of the existing bathroom.

No documentation has been discovered of changes to the visitor center between the time it opened to the public in June 1997 and the establishment of the National Historic Site at the end of 2010. Sometime after 1997, the east porch entrance ramp was altered to include wood stairs descending to grade at the east side of the landing. Also, a white-painted trellis was added in front of the plywood infill wall on the south wall where the south porch had been demolished.

National Park Service, 2011–2013. Since the beginning of NPS stewardship of the site in January 2011, limited work has been completed at the visitor center in addition to routine maintenance. The roof was replaced in November 2011. A new mechanical system was installed in the visitor center in 2011; the new system serves only the first floor, and older window air conditioning units are present at the second floor. The new asphalt shingle roof matches the color and design of the previously existing roof. A new roof of matching asphalt shingles was also installed on the comfort station. Additionally, the exterior wood trim and EIFS cladding of the comfort station was painted in 2012.

President William Jefferson Clinton Birthplace Home Chronology

1917	Dr. H. M. Garrett, a former mayor of Hope, constructed a home for his son Hosea Garrett at 117 South Hervey Street.
1938	In 1938, Eldridge and Edith Cassidy lost possession of their home on Foster Street in Hope and, with their fifteen-year-old daughter Virginia, moved into the house at 117 South Hervey Street.
1941	Following her graduation from Hope High School in 1941, Virginia Cassidy moved to Shreveport, Louisiana, to attend the Tri-State Nursing Academy.
1943	Virginia was certified as a Registered Nurse. September: Virginia married William Jefferson "Bill" Blythe II, a heavy-equipment mechanic in the United States Army.
1946	May 17: William Jefferson Blythe II was killed in an automobile accident as he returned to Hope after purchasing a home in Chicago. August 19: Virginia Blythe gave birth to William Jefferson Blythe III at Julia Chester Hospital in Hope. Virginia and her newborn son lived with her parents at the Cassidy House on Hervey Street.
1949	January: Eldridge and Edith Cassidy purchased the home on Hervey Street from the Barlow family. Virginia enrolled at the New Orleans Pediatric Hospital where she earned certification as a nurse anesthetist.
1950	In 1950, Virginia Blythe married Roger Clinton, the owner of an automobile dealership in Hope, and the family moved to a small one-story house at 321 East Thirteenth Street.
1953	Roger Clinton sold the automobile dealership and moved his family to a 400-acre farm outside of Hot Springs.
1955	The Clinton family moved into Hot Springs.
1956	August: The Cassidys sold their home at 117 South Hervey Street to Violet Daugherty. December: Violet Daugherty sold half of her interest in the property to Paul Daugherty.
1957	Eldridge Cassidy died.
1961	Violet Daugherty sold her remaining interest in the house to Paul Daugherty.
1963	Frankie and Rosalie Arnett purchased the property from Paul Daugherty.
1972	Hervey Street was designated as an interstate access road following the completion of Interstate 30.
1976	Ownership of the property was transferred from Frankie and Rosalie Arnett to Elcie and Beatrice Arnett.
1977	August: The Arnetts sold the home to Leslie and Anna Bell Terry.
1982	The Arkansas State Highway Commission acquired 494 square feet of the property. Likely at this time, Hervey Street was widened and depressed for a larger railroad viaduct, and a retaining wall was built in front of the Cassidy House.
1985	May: Anna Bell Terry sold the home to A. C. and Annie Mae Burton in May.
1992	April 16: A fire occurred on the second floor of the house.
1992	December: The house was sold to Sammy and Mary Crabtree (William Jefferson Clinton Home Organization).
1993	The Clinton Birthplace Foundation was founded with the mission of purchasing and restoring the Cassidy House at 117 South Hervey Street (formally incorporated as a non-profit corporation in 1994).
1994	The William Jefferson Clinton Home Organization purchased the house at 423 West Division Street, directly north of the Cassidy House.

1995	June: The Clinton Birthplace Foundation purchased the Cassidy House and the house at 423 West Division Street from Sammy and Mary Crabtree (William Jefferson Clinton Home Organization).
1995–1996	June 1995 to August 1996: Renovation of the Cassidy House began and was conducted in two phases: work on the exterior of the house was completed, followed by work on the interior of the house.
1996	March: The house at 415 West Division Street was purchased by the Clinton Birthplace Foundation.
1996	The house at 423 West Division Street was demolished.
1996–1997	The house at 415 West Division Street was renovated, including construction of a new comfort station, replacing a garage outbuilding on the site.
1997	June 1: The visitor center and renovated Cassidy House opened to the public.
1999	March 12: President Bill Clinton visited Hope and attended the dedication of the site. A garden in honor of Virginia (Cassidy) Clinton was constructed directly north of the Cassidy House.
2004	A black-painted metal fence was installed around the site to restrict access during hours in which the visitor center and house were closed.
2006	May 22: The Clinton Birthplace Foundation filed a warranty deed to combine all three of its owned parcels (the two properties facing Division Street as well as the Cassidy House property) under one title.
2009	March 30: An Act of Congress authorized the establishment of President William Jefferson Clinton Birthplace Home National Historic Site as a unit of the National Park Service, contingent on the Secretary of the Interior acquiring the site by donation from the Clinton Birthplace Foundation.
2010	December 14: The Clinton Birthplace Foundation donated the site to the United States for the National Park Service.
2011	April 16: The site was officially dedicated, with President Bill Clinton and Secretary of the Interior Ken Salazar present at the dedication ceremony.
2011	Asphalt shingle roofs of the Cassidy House, visitor center, and comfort station were replaced. Mechanical equipment at Cassidy House, visitor center, and comfort station were replaced.
2012	Exterior of Cassidy House and comfort station were repainted.

Physical Description and Condition Assessment

Site

President William Jefferson Clinton Birthplace Home National Historic Site is located in Block 25 of downtown Hope, four blocks west of Main Street. It includes the Cassidy House, a memorial garden, and a visitor center. To the west, the block is bounded by South Hervey Street; to the south by West Second Street; to the east by South Pine Street; and to the north by West Division Street. The Union Pacific railroad runs immediately north of Division Street. South Hervey Street and West Division Street each drop in grade beginning mid-block. Just north of their intersection, South Hervey Street passes under the railroad via a steel and concrete underpass structure.

The boundary of the National Historic Site brings together three former residential lots. An alley, running east-west, divides the block and connects the National Historic Site property with a privately owned parking lot in the southeast quadrant of the block. The Cassidy House is situated on a 50-foot by 60-foot lot just south of the alley, at its western terminus. The house faces west toward South Hervey Street, a four-lane commercial artery. Two former residential properties north of the alley were acquired by the Clinton Home Foundation during the 1990s. A house in the northwestern lot, at the corner of South Hervey and West Division Streets, was demolished during the 1990s. Subsequently a garden was built on this site in honor of President Clinton's mother, Virginia Clinton Kelley. The former residence on the northeastern lot currently functions as the National Park Service visitor center. An auxiliary building housing restrooms and storage, built in 1997, functions as the site's comfort station.

Two additional buildings occupy the block. At the corner of West Division and South Pine Streets is a brick Craftsman-style residence with a detached garage. Also extant is the Vincent Foster House, located on West Second Street. The rear yard of this property is contiguous with that of the Cassidy House, although the sites are currently separated by a wood fence. Adjacent to this house, on the corner of South Hervey and West Second Streets, is a vacant lot used for parking. A residence at this location, present in historic photos from the period of significance, was demolished at an unknown date. The block is host to numerous large and medium sized trees, some of which are believed to remain from the period of significance.

A detailed description of the National Historic Site property and the setting of the Cassidy House is contained in the Cultural Landscape Report.

Cassidy House

The Cassidy House is a two-story wood-framed structure. The building is an example of the American Foursquare type, which was popular in residential architecture in the early twentieth century (Figure 65). An American Foursquare house is typically square or rectangular in plan and defined by a low-slope hip roof and a symmetrical facade. A one-story front porch extending the width of the main facade is usually present as well. Nearly all of the existing exterior materials are replacement materials that were installed as part of work implemented in 1995.

FIGURE 65. A view of the Cassidy House from the west with Hervey Street in the foreground. Photograph by WJE, October 15, 2012.

Exterior Evaluation

Description. The Cassidy House is clad in cove shiplap wood siding with a 7-inch exposure. The windows and doors are surrounded by 1x6 wood trim. The siding, fenestration trim, corner trim, and windows are replacement elements installed during the 1995 work on the building. Neither the existing siding nor the window trim matches the profile of the siding and trim present during the period of significance, and the corner trim is an entirely new element added during the 1995 work. A skirt board with drip cap historically present at the base of the siding was not replicated in the new siding installation.

The house has a brick foundation, above-grade portions of which were replaced as part of the work completed in 1995. Metal louvered vents are present in the rebuilt foundation, with three vents per elevation.

The house has a flared hip roof clad with green asphalt shingles. The existing shingles were installed in late 2011. There are three soffit vents on each side of the building, with the exception of the west elevation. The wood soffit and fascia cladding was replaced in 1995. A hipped dormer is present on the west elevation. No gutters or downspouts are present. Galvanized metal flashing is present at the valley between the main roof and the dormer roof. There is a galvanized sheet metal vent stack on the east face of the roof, added in 1996 as part of the installation of new mechanical systems in the house.

A brick masonry chimney is present in the house but currently terminates below the roofline in the attic. Based on historic interior photographs that show a gas heater in the living room fireplace, it is assumed that the chimney extended above the roof during the period of significance. The appearance and configuration of the chimney on the exterior is not documented.

The main facade of the Cassidy House faces west (Figure 66). A one-story open porch extends nearly the full length of the west elevation (Figure 67). The porch has a hip roof supported by two wood square columns with battered sides. The wood columns sit on brick square columns. A bracket to hold a flagpole is present at one of the porch posts. Wood stairs lead up to the center of the porch on the west side. The existing porch foundation, deck, corner piers, and roof were completely replaced as part of the 1995 work.

FIGURE 66. The west elevation of the Cassidy House. Photograph by WJE, October 15, 2012.

FIGURE 67. The front porch on the west elevation of the Cassidy House. Photograph by WJE, October 16, 2012.

A decorative, multi-panel door with a glass insert is situated at the center of the west elevation (Figure 68). Prior to the 1995 work, this door was located at the back porch entrance. Although this is an older solid wood door, it was not present at the back porch nor at the front entrance to the Cassidy House during the period of significance. It may have been salvaged from another building after the period of significance. A three-light transom window is present over the door; this transom is one of the few existing exterior elements that date to the period of significance. There is an exterior wall-mounted light fixture to the left of the door; this fixture has a metal base and a cylindrical glass globe and is similar in design to the fixture present during the period of significance, but it is mounted on the opposite side of the door opening. A twelve-over-one double-hung window is located on either side of the door. The door and two windows are evenly spaced across the west elevation. Three, twelve-over-one double-hung windows are located on the second floor and are aligned with the door and windows below. A four-light fixed window is present in the dormer (Figure 69).

FIGURE 68. The main door to the house on the west elevation. The three-light transom is an original element dating to the period of significance. Photograph by WJE, October 15, 2012.

FIGURE 69. A view of the dormer showing the four-light fixed window. Photograph by WJE, October 17, 2012.

The north elevation of the Cassidy House contains a five-panel wood door on the east end

of the first floor (Figure 70). This door leads to a back porch area that is currently enclosed but which was an open-air screened porch during the period of significance. A wood ramp leads from the adjacent sidewalk to the door. During the period of significance, wood steps led from grade to the porch door at this location. A pair of twelve-over-one double-hung windows is located west of the door, near the center of the elevation. A small twelve-over-one double hung window is present on the west end of the elevation, on the first floor. A wood ramp with metal rails leads from an adjacent sidewalk to the front porch, which is visible on the west side of the north elevation (Figure 71). This ramp and handrails were added circa 1996.

FIGURE 70. The north elevation of the Cassidy House. Photograph by WJE, October 15, 2012.

FIGURE 71. A view of the wood ramp leading to the front porch. Photograph by WJE, October 16, 2012.

Situated on the east end of the second floor is a set of two, eighteen-over-one double hung windows (Figure 72). The windows are wider than other windows on the house and have slightly different details than the other replacement windows. Although these two windows are replacement units from the 1995 work, a different model or window supplier may have been used for these two windows. West of the windows is a wood fan enclosure (refer to Figure 72). This feature is a 1995 reconstruction of a fan enclosure that was historically present in this location. The wood-frame feature is topped by an asphalt-shingle shed roof that slopes away from the house. No fan was present within the enclosure prior to the 1995 renovation.

FIGURE 72. A view of the end of the north elevation showing the two, eighteen-over-one windows at the second floor and the wood fan enclosure. Photograph by WJE, October 15, 2012.

The south elevation of the Cassidy Home contains two sets of three, twelve-over-one double hung windows at the first floor (Figure 73). The symmetrical facade also contains four evenly-spaced, twelve-over-one double-hung windows on the second floor. A concrete staircase leads from grade to the front porch, which is visible on the west end of the

south elevation. These three concrete stairs are visible in historic photographs of the house and are among the only intact exterior materials that date to the period of significance (Figure 74).

FIGURE 73. The south elevation of the Cassidy House. Photograph by WJE, October 16, 2012.

FIGURE 74. A view of the concrete slab and concrete steps leading to the front porch. These concrete elements date to the period of significance. Photograph by WJE, October 16, 2012.

The east elevation of the Cassidy Home includes a small vented door on the north end of house. The door leads to a mechanical closet. The door and the closet were added as part of the 1996 work. A small nine-over-one double-hung window is present to the south of the mechanical closet door. The building's gas and electric meters are located north of the mechanical closet door (Figure 75). A larger, twelve-over-one double-hung window is located on the south end of the first floor of the east elevation. Two air conditioning units are located between the window and the mechanical closet door (Figure 76).

FIGURE 75. A view of the mechanical closet door and the building's gas and electric meters. Photograph by WJE, October 15, 2012.

FIGURE 76. A view of the mechanical equipment on the south end of the east elevation. Photograph by WJE, October 15, 2012.

A set of two, twelve-over-one double-hung windows are present at the north end of the second floor (Figure 77). A nine-over-one double-hung window is situated south of the set of windows, aligned with the similarly sized window below. On the south end of the elevation, a twelve-over-one double-hung

window is aligned with the first floor twelve-over-one double-hung window below.

FIGURE 77. The set of double-hung windows at the north end of the east elevation. Photograph by WJE, October 15, 2012.

Condition Assessment. The following notable conditions were observed at the exterior of the Cassidy House:

- Step cracking of the masonry foundation wall. The cracking is prevalent in the brick masonry added during the 1995 work (Figure 78). This cracking is likely a result of underlying foundation structural deficiencies that were not addressed by the limited scope of the 1995 work. Refer to discussion under Structural System Evaluation, below.
- Signs of water damage at mechanical closet door on the east elevation (Figure 79). This door is apparently an interior-grade hollow core door. The outer veneer layer at the bottom of the door is water damaged and delaminated.
- Cracking at the east end of the first concrete stair at south side of the front porch (refer to Figure 74).
- The non-original wood windows are of marginal quality.
- Cracked window glass was observed at several locations (Figure 80).
- Due to settlement of the structure, some windows do not close fully (Figure 81).
- Without gutters or downspouts, the ground directly below the drip line of the roof overhang is somewhat eroded (Figure 82).
- Many of the exterior wood trim elements were minimally prepared prior to painting; the wood grain is pronounced, and nail heads are visible and sometimes protrude above the wood surface (Figure 83).

FIGURE 78. Step cracking is present in the brick masonry foundation. Photograph by WJE, October 16, 2012.

FIGURE 79. The base of the mechanical closet door shows signs of water damage. Photograph by WJE, October 15, 2012.

FIGURE 80. Cracked window glass was observed in several locations. Photograph by WJE, October 16, 2012.

FIGURE 81. View of a window that is unable to fully close due to the settlement of the house. Photograph by WJE, October 16, 2012.

FIGURE 82. Erosion is present at locations around the house due to the lack of gutters and downspouts. Photograph by WJE, October 16, 2012.

FIGURE 83. A view of an exterior wood trim element that was minimally prepared prior to painting. Photograph by WJE, October 16, 2012.

Interior Evaluation

The general interior spatial configuration of the Cassidy House consists of a west-facing living room that occupies the west half of the main floor, with a dining room, hall, and kitchen within the east half of the house. The one stair that connects to the second floor is located on the north wall of the living room. The house contains a central chimney, which has been removed above the roof line. (Presently, there is a galvanized metal chimney stack at the east face of the roof that was added to vent the new furnace installed during the 1996 work.) The original chimney once vented a fireplace in the living room and the kitchen stove behind it. The fireplace and stove are not operational today. Paired French doors connect the dining room at the southeast corner of the house with the living room. North of the dining room is a hall that contains a built-in china cabinet that adjoins the living room fireplace chimney. The kitchen occupies the northeast corner of the house, with a small pantry under the stairs and a porch in the far northeast corner. The back door exits on the north side. A mechanical room is located on the rear (east side of the house) and is accessed only from the exterior.

The second floor contains a central hall with a large bedroom across the west (front) side of the house directly above the living room. A second bedroom is located on the southeast corner of the house above the dining room. The bathroom is above the main level hall, and the third bedroom is located in the northeast corner above the kitchen. The attic is accessed by a hatch in the ceiling of the hall, and the attic contains one dormer, centered on the west facade.

The house does not have a basement, but is raised above a crawl space that is accessible from two exterior hatches on the east side.

Main Floor.

Living Room (Room 101). The living room is approximately 14 feet 4 inches by 29 feet 3 inches with a ceiling that is 8 feet 11 inches high (Figure 84).

FIGURE 84. Living room looking north. Photograph by BVH, October 16, 2012.

Floor. The floor of the living room is original to the house and is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running the length, north and south, of the room (Figure 85). The floor has a dark stain finish. There is evidence of patching in various locations along the east wall and the southwest corner of the room, as the flooring is not staggered at these locations (Figure 86). The floor is in good condition.

FIGURE 85. Living room floor looking west at front door. Photograph by BVH, October 16, 2012.

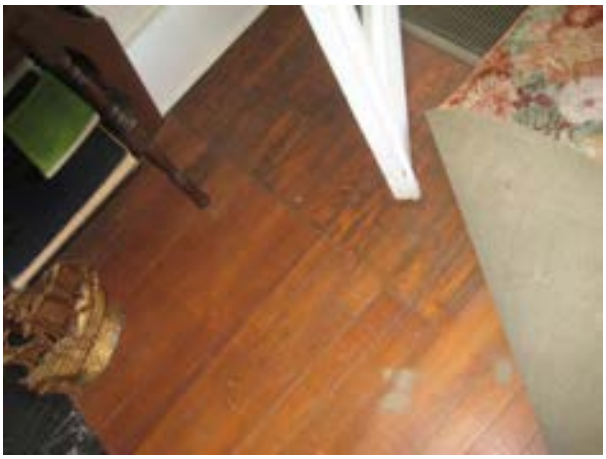


FIGURE 86. Living room floor patch looking east toward dining room paired French doors. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the living room is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. To confirm the material assembly of the walls, an opening was made through the wallpaper and gypsum board on the south wall (Figure 87) and the east wall, just south of the double doors accessing the dining room (Figure 88). The finish of the walls is wallpaper, installed at the same time as the gypsum board. The current wallpaper was chosen by the architect of the 1996 work, loosely based on the original wallpaper seen in the 1949 Christmas card featuring Billy Blythe standing in the living room, and on samples taken from the house at the time of the 1996 work. These samples were salvaged and kept by Stan Jackson, an architect with Cromwell Architects Engineers, but were later lost in a fire. The wallpaper pattern consists of off-white and tan wide vertical stripes (Figure 89). The wall base is comprised of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor (Figure 90). The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the 2-inch by 3-inch square cornice around the perimeter of the ceiling (Figure 91). The replacement cornice does not match the profile of the original. The original cornice was articulated with a cove and ogee curve, as seen in the 1949 Christmas card (Figure 19 in the History chapter). The replacement base has a different profile than that of the original. The original has an eased, rounded edge and the replacement trim has a square edge. All trim is painted white. The walls are in good condition.

FIGURE 87. Material assembly of wall construction, showing the horizontal half-lap wood wall boards behind the gypsum board, located below the south window of the living room. Photograph by BVH, October 16, 2012.

FIGURE 88. Material assembly of wall construction, showing the horizontals half-lap wood wall boards behind the gypsum board on the east wall of the living room. Photograph by BVH, October 16, 2012.

FIGURE 89. Living room looking west toward the front door. Photograph by BVH, October 16, 2012.

FIGURE 90. Northeast corner of the living room showing base trim and quarter-round. Photograph by BVH, October 16, 2012.

FIGURE 91. Ceiling cornice and trim at stair opening, replaced at time of the 1996 work, looking northwest in the living room. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the living room is full 1-inch by 7-inch half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The ceiling is painted white with a smooth finish. The center of the ceiling contains a four-light chandelier. It is not original to the house but is appropriate to the period of significance (Figure 92). The video tour of 1993 shows a different chandelier in this location, with five candle uplights instead of four downlights.[48] The ceiling is in good condition.

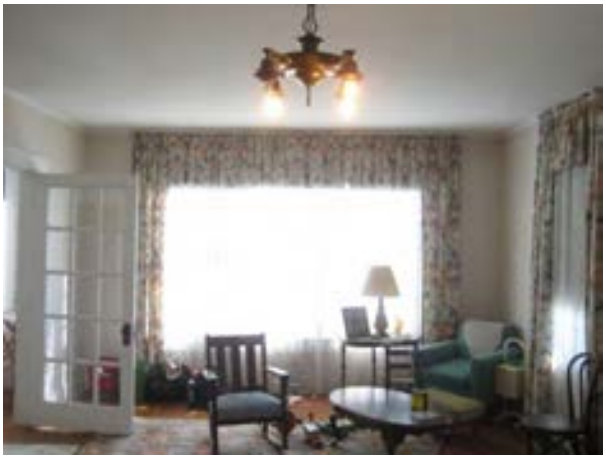


FIGURE 92. Living room ceiling looking south, with chandelier in the center of the room. Photograph by BVH, October 16, 2012.

Doors. The front door of the house (door 101, see Appendix A, sheet A1) is centered on the west wall of the living room and opens directly into the room. The door contains a large vision panel that occupies the top half of the door. The door is of solid stile and rail construction with three square panels below the vision panel, and one large panel at the bottom. The door is painted white (Figure 93). Just prior to the 1995 work, this door was located at the back porch (door opening 105, see Appendix A, sheet A1). During the 1995 work, it was assumed that this door was too elaborate to be the original back door and therefore that this door must originally have been at the front of the house. However, photographs of the house from the period of significance show different exterior doors at both the back porch and the front entrance. Therefore, this door may not be original to the house but rather may have been salvaged from another building and installed at the back porch door prior to the 1990s.

FIGURE 93. Front door of the house looking west. Photograph by BVH, October 16, 2012.

The hardware consists of a polished brass mortised lockset and matching brass deadbolt above, dating from the time of the 1995–1996 work. The door contains three mortised pin hinges that are covered with several coats of paint, and are original to the door (Figure 94). The hardware is in good condition.

48. Tour of Cassidy House with Virginia Kelley, July 1, 1993.

FIGURE 94. Front door hardware. Photograph by BVH, October 16, 2012.

The front door assembly contains a three light fixed transom, apparently in place during the period of significance. According to the Finishes Analysis section at the end of this chapter (refer also to Appendix C), the transom contains approximately nine layers of paint, denoting that the transom has been in place for a long time (Figure 95). The interior trim at the door was replaced at the time of the 1996 work. Due to the addition of gypsum board to the walls, the walls are thicker than they were originally, and the trim has been built up in two layers of wood to account for the added thickness. The 3/4-inch by 5-1/2-inch trim contains rounded edges and a plinth block at the bottom. Due to the added thickness of the trim, the door does not open fully.

FIGURE 95. Front door transom. Photograph by BVH, October 16, 2012.

Paired French doors lead to the dining room from the living room (door 102, see Appendix A, sheet A1). The doors are from the period of significance, and were present in the Virginia Kelley tour video.[49] These doors are of solid stile and rail construction with fifteen glass panels each (Figure 96). The south door contains a passage door knob with skeleton key lock, original to the door (Figure 97). The north door contains a brass flush bolt assembly that bolts into the head jamb, and currently is not operable (Figure 98). Each door contains two hinges, which are covered with several coats of paint and are original to the door assembly. Due to the addition of gypsum board to the walls, the walls are thicker than they were originally, and the 1-inch by 5-1/2-inch trim has been built up in two layers of wood to account for the added thickness (Figure 99). The trim contains rounded edges and a plinth block at the bottom. Due to the added thickness of the trim, these doors do not open fully. The doors are in good condition.

49. Tour of Cassidy House with Virginia Kelley, July 1, 1993.

FIGURE 96. Paired French doors between the living room and dining room, looking east. Photograph by BVH, October 16, 2012.

FIGURE 97. Hardware of the north French door. Photograph by BVH, October 16, 2012.

FIGURE 98. Flush bolt at top of south French door. Photograph by BVH, October 16, 2012.

FIGURE 99. Built up layers of wall assembly, looking north. Photograph by BVH, October 16, 2012.

Windows. At the west wall of the living room are two wood, true divided light twelve-over-one double-hung single glazed windows (windows 102 and 103, see Appendix A, sheet A1), one to either side of the front door. The windows throughout the house appear to be double-hung with the upper sashes painted shut. The windows are of wood construction and are replacements installed as part of the 1995 work. The configuration of lights matches the original windows. A group of three matching windows is located on the south wall of the living room (window 101, see Appendix A, sheet A1). A smaller twelve-over-one double-hung window is located on the north wall at the stair landing (Figure 100) (window 104, see Appendix A, sheet A1). Interior window trim was replaced at the time of the 1996 work and matches the profile of the windows shown in the Virginia Cassidy house tour video, filmed before the renovations took place. The trim is poor quality material, with knots bleeding through the paint. The weatherstripping at the perimeter of the sash is failing. The wood windows have areas of condensation damage and are in fair condition overall.

FIGURE 100. Small window at stair landing, north wall of living room. Photograph by BVH, October 16, 2012.

Fireplace. The living room contains a fireplace that is currently not usable, due to the fact that the chimney of the house above the roof has been removed. The hearth is a single piece of black marble directly applied atop the hardwood floor, which is continuous under the marble hearth. The mantel is of wood construction. The original mantel was removed sometime after the period of significance and before the 1990s. It was not present during the 1993 video tour.[50] During the 1996 work, the current wall finish was removed and the ghost outline of the mantel was found.[51] It was recreated to match the outline, and details were copied based on review of archival photographs (refer to Figure 20 in the history chapter). The legs are continuous to the mantel, and the header contains a horizontal urn applique. The mantel is painted white and is in good condition. The edge of the mantel does not match the original in the photograph and the side pilaster lack the fluted detail of the original, but the applique and other details are very similar to the original (Figure 101).

FIGURE 101. Fireplace in the living room located on the east wall. Photograph by BVH, October 16, 2012.

Stairs. The stair assembly is original to the house and occupies the north wall of the living room. The stair begins at the northwest corner of the first floor with three treads, approximately 42 inches wide, leading to a landing that forms a ninety degree turn, to a straight run of fifteen treads, approximately 40 inches wide. The bottom step is rounded at the east end and wraps around the base of the second step (Figure 102). Risers are approximately 6 inches high, and treads are approximately 11 inches deep. The treads are stained wood, and all other parts of the assembly are painted white. A large square-paneled newel post is located at the corner of the landing. The railing is square wood stock, and the balusters are rectangular 1-inch by 1-1/2-inch wood stock. A secondary handrail has been added on the north wall that is not original (Figure 103).

50. Tour of Cassidy House with Virginia Kelley, July 1, 1993.
51. Refer to Appendix E, interview with Stan Jackson.

FIGURE 102. Newel post and lower run of stairs, looking north. Photograph by BVH, October 16, 2012.

FIGURE 103. Upper run of stairs with original rail at right, and added safety rail at left, looking east. Photograph by BVH, October 16, 2012.

The wood base trim, stringer trim, and wall stringer trim are original, and were not removed as part of the 1996 work. The new gypsum board sits on top of the base and therefore diminishes the depth of the original profile (Figure 104). The stairs are in good condition.

FIGURE 104. Note that the wall base in the northwest corner is original and flush with later added gypsum board. Photograph by BVH, October 16, 2012.

Dining Room (Room 102). The dining room is approximately 14 feet 5 inches by 14 feet 5 inches with a ceiling that is 8 feet 11 inches high.

Floor. The floor of the dining room is original to the house and is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running north and south in the room. The floor has a dark stain finish. There is evidence of patching in in the northwest corner, as the flooring is not staggered in this location (Figure 105). The floor is in good condition.

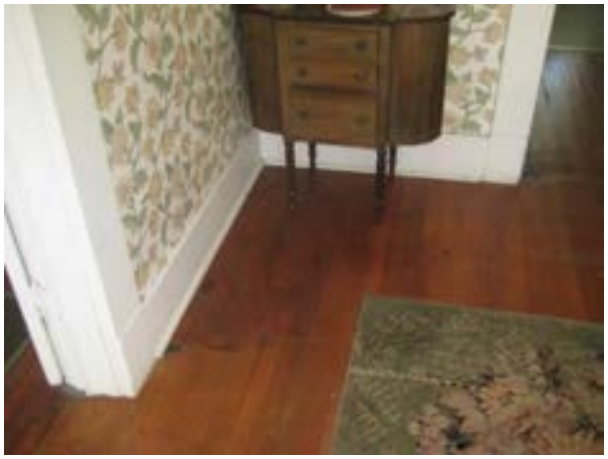


FIGURE 105. Note the flooring along the east wall of the dining room is not staggered, denoting a patch in the floor. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the dining room is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The finish of the walls is wallpaper, installed at the same time period as the gypsum board. To confirm the material assembly of the walls, an opening was made through the wallpaper and gypsum board on the north wall (Figure 106). The wallpaper pattern consists of a green and cream floral print with a white background. The wall base consists of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the 2-inch by 3-inch square cornice around the perimeter of the ceiling (Figure 107). The replacement cornice does not match the profile of the original. The original cornice was articulated with a cove and ogee curve. The replacement base matches the profile of the original. All trim is painted white. The walls are in good condition.

FIGURE 106. Material assembly of wall construction, showing the horizontals half-lap wood wall boards behind the gypsum board, located on the north wall of the dining room. Photograph by BVH, October 16, 2012.

FIGURE 107. Northwest corner of the dining room. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the dining room is full 1-inch by 7-inch half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The ceiling is painted white with a smooth finish. The center of the ceiling contains a four-light chandelier (Figure 108). Photographs taken in August 1995 show a different, five-light chandelier with upward facing candle-style lights. This fixture was apparently removed and replaced with the existing historic-style replica chandelier during the 1996 work. The ceiling is in good condition.

FIGURE 108. Ceiling and chandelier in the dining room. Photograph by BVH, October 16, 2012.

Doors. The dining room does not contain any doors other than the paired French doors noted in the living room description (door 102, see Appendix A, sheet A1). The trim contains rounded edges and a plinth block at the bottom. Due to the addition of gypsum board to the walls, the walls are thicker than they were originally, and the 1-inch by 5-1/2-inch trim has been built up in two layers of wood to account for the added thickness. The door trim is in good condition.

Windows. At the center of the south wall is a group of three wood true divided light twelve-over-one double-hung single-glazed windows (Figure 109) (window 108, see Appendix A, sheet A1). There is an identical window at the center of the east wall (window 107, see Appendix A, sheet A1). The windows are of wood construction and are replacements installed as part of the 1996 work. The configuration of lights matches the original windows. The interior window trim was also replaced at the time of the 1996 work. The 1-inch by 5-1/2-inch trim is poor quality material, with knots bleeding through the paint. The weatherstripping at the perimeter of the sash is failing. The wood contains areas of condensation damage and is in fair condition.

FIGURE 109. South window group in the dining room. Photograph by BVH, October 16, 2012.

Hallway (Room 103). The hallway is located north of the dining room and connects the dining room with the kitchen. The hallway contains a built-in china cabinet. The hallway is approximately 14 feet 5 inches by 4 feet 7-1/2 inches. Cromwell Architects Engineers drawings show that the opening between the hallway and the kitchen to the north prior to the 1996 work was the full width of the kitchen (Figure 110). It is unclear whether or not the hallway was open to the kitchen during the period of significance. However, the Virginia Kelley tour video shows the door header of this large opening to be continuous, and the wood material looks old.[52] The wide opening may have been extant during the period of significance. Virginia Kelley was asked about this detail, but in the video her comments were vague, and she did not seem to remember exactly how the kitchen was laid out during her occupancy. During the 1996 work, the opening was narrowed to the width of a door. It is unknown why this change was implemented.

As part of the 1996 work, a north-south wall was removed that divided the hallway approximately in two halves. Again, it is unclear why this was done, or whether there was any evidence that this wall was added after the period of significance. The east half of the hallway was actually accessed from the back porch to the north, through what is now HVAC closet 106 (refer to Figure 110). The door to the back porch from the hallway was also filled in at this time. Also, new walls were furred out to define a mechanical chase at the southeast corner of the enlarged hallway, and a soffit was built connecting from this chase to the new mechanical closet.

52. Tour of Cassidy House with Virginia Kelley, July 1, 1993.

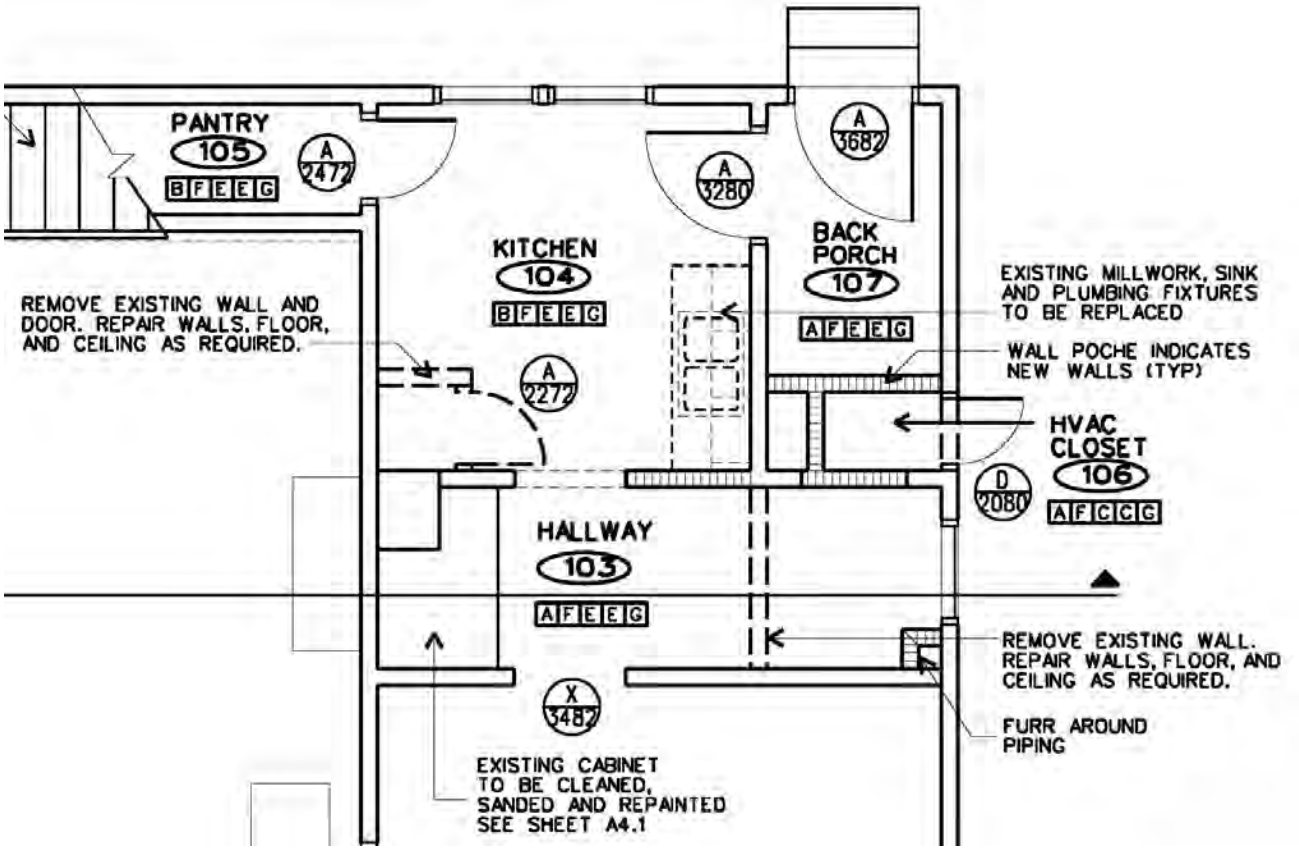


FIGURE 110. Excerpt of Cromwell Architects Engineers drawing A1.1, project 93-074, showing changes to the partitions and layout of the hallway, kitchen, and back porch as implemented in 1996.

Floor. The flooring of the hallway is not original to the house and was replaced at the time of the 1996 work. It is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running north and south in the room. The floor has a dark stain finish (Figure 111). The floor is in good condition.

FIGURE 111. Transition of original floor of dining room at top, and hallway floor at bottom, looking south. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the hallway is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, located on all walls except the north wall, which was constructed at the time of the 1996 work. To confirm the material assembly of the new north wall of the hallway, an opening was made through the wallpaper and gypsum board (Figure 112). All of the walls were covered with gypsum board added at the time of the 1996 work. The finish of the walls is wallpaper, installed at the same time period as the gypsum board. The wallpaper pattern consists of a green, gold, and pink abstract drizzles of color over a white background. The wall base in this room is taller than other rooms in the house and is composed of 11-1/2-inch by 3/4-inch wood with quarter-round at the perimeter of the floor (Figure 113). The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the quarter-round cornice

around the perimeter of the ceiling. All trim is painted white. The walls are in good condition.

FIGURE 112. Material assembly of wall construction, showing the new wood wall studs behind the gypsum board, located on the north wall. Photograph by BVH, October 16, 2012.

FIGURE 113. Southeast corner of the hallway showing replacement base that is considerably taller than elsewhere in the house. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the hallway is 3/4-inch by 6-1/2-inch half-lap edge and center beadboard, painted white, installed at the time of the 1996 work. The center of the ceiling contains a flush-mount light fixture with a milk glass globe; this fixture was installed in the 1996 (Figure 114). The ceiling is in good condition.

FIGURE 114. Hallway ceiling and light fixture. Photograph by BVH, October 16, 2012.

Doors. The hallway does not contain any doors, but there is evidence that originally there was a dual-swinging door between this space and the dining room, evidenced by an infilled patch in the floor where the pivot hardware was located (Figure 115) (door opening 108, see Appendix A, sheet A1).

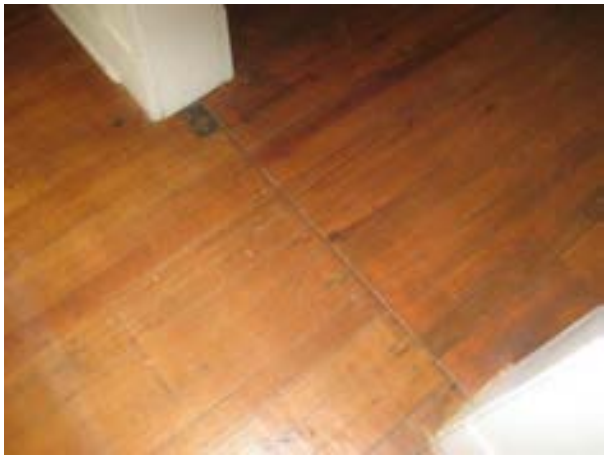


FIGURE 115. Evidence of hardware for a pivot pin where a swinging door was located, between the dining room and hallway. Photograph by BVH, October 16, 2012.

Windows. The east wall of the hallway contains a single small wood true divided light nine-over-one double-hung single-glazed window (window 106, see Appendix A, sheet A1). The window is of wood construction and is a replacement from the time of the 1996 work (Figure 116). The configuration of the lights matches the original window. Trim was also replaced at the time of the 1996 work. The

1-inch by 5-1/2-inch trim is poor quality material, with knots bleeding through the paint. The weatherstripping at the perimeter of the sash is failing. The wood contains areas of condensation damage and is in fair condition.

FIGURE 116. The nine-over-one window located on the east wall of the hallway. Photograph by BVH, October 16, 2012.

Cabinetry. The hallway contains a built-in china cabinet that occupies the west wall of the hallway and is original to the house. The cabinet is of wood construction with two solid panel stile and rail doors across the bottom, and two stile and rail doors above the counter, each with three glass vision panels (Figure 117). The chimney is encapsulated within the cabinet (Figure 118). The sides and top of the cabinet are finished with horizontal 1 by 4 tongue-and-groove edge and center beadboard, painted white. It contains three fixed shelves. The top of the cabinet is level with the tops of the doorways to the kitchen and dining room that immediately flank it. The lower doors seem to not be original to the cabinet, as they are ill fitting and the corners of the stiles are mitered, whereas the upper doors are of a finer construction with mortise and tenon corners (Figure 119). These changes took place prior to the 1996 work. There is evidence that the face hinges have been changed at least twice over time, but it is uncertain when this last occurred (Figure 120). The bottom doors are latched with a spring-loaded cabinet door latch. Each of the upper doors contains a small non-original knob, installed after the period of significance and before commencement of the 1996 work (Figure 121). The cabinet is in fair condition.

FIGURE 117. China cabinet located across the west wall of the hallway. Photograph by BVH, October 16, 2012.

FIGURE 118. Framed in chimney within the china cabinet. Photograph by BVH, October 16, 2012.

FIGURE 119. Two types of door construction; the lower doors are replacements. Photograph by BVH, October 16, 2012.

FIGURE 120. Newer face hinges, and evidence where previous hinges were located evidenced by the mortise in the frame below. Photograph by BVH, October 16, 2012.

FIGURE 121. Small contemporary knobs on the upper cabinet doors. Photograph by BVH, October 16, 2012.

Kitchen (Room 104). The kitchen is approximately 9 feet 6 inches by 9 feet 4 inches and is located along the north wall of the house.

Floor. The flooring of the kitchen is composed of rubber rolled linoleum flooring material over 3/4-inch plywood, which replaced the original tongue-and-groove floor at the time of the 1996 work. The flooring is a mottled medium dark green color. It was installed in two sheets with a seam roughly located across the center of the kitchen, and the butted edges are fraying (Figure 122). The flooring contains a metal transition strip between the kitchen and the hallway (Figure 123). The flooring is in fair condition.

FIGURE 122. Seam between sheets of flooring in the kitchen running east and west is showing signs of wear. Photograph by BVH, October 16, 2012.

FIGURE 123. Metal transition strip between kitchen and hallway floors. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the kitchen is horizontal 3/4-inch by 6-1/2-inch tongue-and-groove edge and center beadboard over the wall studs. The beadboard is generally original, with areas of patching from the 1996 work. The south wall from the door opening to the hallway to the southeast corner of the room was added at the time of the 1996 work. This wall was not extant in the Virginia Kelley video, and the Cromwell Architects Engineers plans show this wall to be constructed where there was none before (refer to Figure 110). It is unclear whether a wall was present at this location during the period of significance and no documentation was discovered of why it was added (Figure 124). The wall base is composed of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the quarter-round cornice around the perimeter of the ceiling. All trim is painted white. The walls are in good condition.

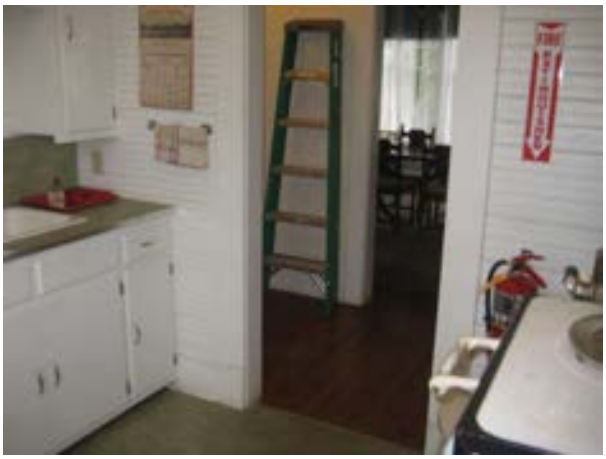


FIGURE 124. The south wall of the kitchen in the foreground was removed after the period of significance, and rebuilt as part of the 1996 work. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the kitchen is 3/4-inch by 6-1/2-inch tongue-and-groove edge and center beadboard, painted white, original to the house, except for localized patches and repairs installed in the 1996. The center of the ceiling contains a flush mount light fixture with a milk glass globe; this fixture dates to the 1996 (Figure 125). No documentation has been discovered to indicate the appearance of the fixture from the period of significance. The ceiling contains areas where the paint finish is peeling, and is in good condition.

FIGURE 125. Tongue-and-groove kitchen ceiling. Photograph by BVH, October 16, 2012.

Doors. The kitchen contains two doors, both five horizontal panel stile-and-rail construction, accessing the pantry to the west (door 103, see Appendix A, sheet A1), and the back porch to the east (door 104, see Appendix A, sheet A1). The pantry door contains raised panels and the back porch door does not (Figure 126). The back porch door may not have been in this location originally, as it has been patched where a door knob assembly had once been on the opposite side of where the hardware is located now (Figure 127). The 1-inch by 5-1/2-inch trim has rounded edges and a plinth block at the bottom, replacing the original trim at the time of the 1996 work. The hardware of both doors consists of nickel-plated door knobs with vertical escutcheon plates and skeleton key locks. The doors are in good condition.

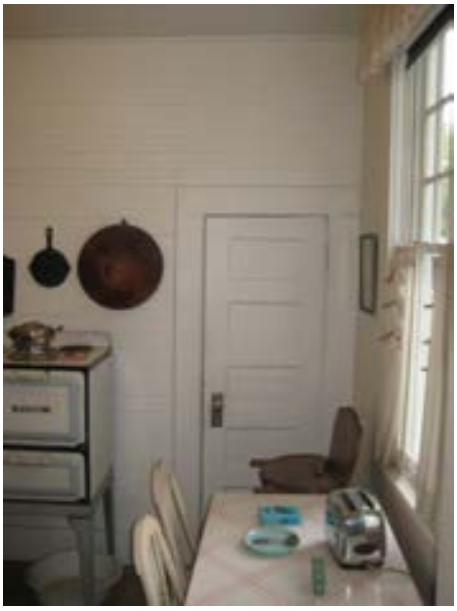


FIGURE 126. Pantry door with raised panels, located in the northwest corner of the kitchen. Photograph by BVH, October 16, 2012.

FIGURE 127. Back porch door located in the northeast corner of the kitchen. Note that the panels are not raised, and the infilled door knob at the hinge side of the door. Photograph by BVH, October 16, 2012.

Windows. The north wall of the kitchen contains two wood true divided light twelve-over-one double-hung single-glazed windows (window 105, see Appendix A, sheet A1). The windows are of wood construction and are replacements from the time of the 1996 work. The configuration of divided lights matches the original windows. The 1-inch by 5-1/2-inch trim was also replaced at the time of the 1996 work (Figure 128). The windows are in fair condition.

FIGURE 128. Two twelve-over-one windows on the north wall of the kitchen. Photograph by BVH, October 16, 2012.

Cabinetry and Fixtures. The cabinetry, located on the east wall of the kitchen, was constructed of particle board at the time of the 1996 work. The lower cabinet countertop consists of a rubber rolled linoleum flooring material that matches the floor, with matching backsplash, and metal edge. A wide enameled iron sink is centered in the counter. Below the sink are two flat, surface-mounted doors, flanked by four drawers on the left (north) side and a drawer and door on the right (south) side of the sink. The cabinets contain a 3-inch toe kick (Figure 129). The upper cabinets consist of high paired flat-panel surface-mounted doors above the sink, with a single taller door on each side. The hardware is chrome plated arched pulls and surface-mounted hinges (Figure 130). The cabinetry was installed as preassembled units, evidenced by the fact that they all contain a back panel against the wall. The cabinets are in fair condition.

FIGURE 129. Lower cabinets located along the east wall of the kitchen. Photograph by BVH, October 16, 2012.

FIGURE 130. Upper cabinets. Photograph by BVH, October 16, 2012.

Against the west wall are a water heater and a gas stove, installed at the time of the 1996 work (Figure 131). The appliances are appropriate to the period of significance but are not original to the house. It is probable that these appliances were donated but it is unknown by whom or from what source. The water heater contains asbestos insulation.[53] They are inoperable, as there is no chimney above the roof line to vent them and no gas or plumbing connections.

FIGURE 131. Kitchen appliances located on the west wall of the kitchen. Photograph by BVH, October 16, 2012.

53. Refer to Hazardous Materials Analysis, Appendix B.

Pantry (Room 105). The pantry is accessed through a five-panel door at the north end of the west wall of the kitchen, and occupies the space below the stairs to the second floor (Figure 132).

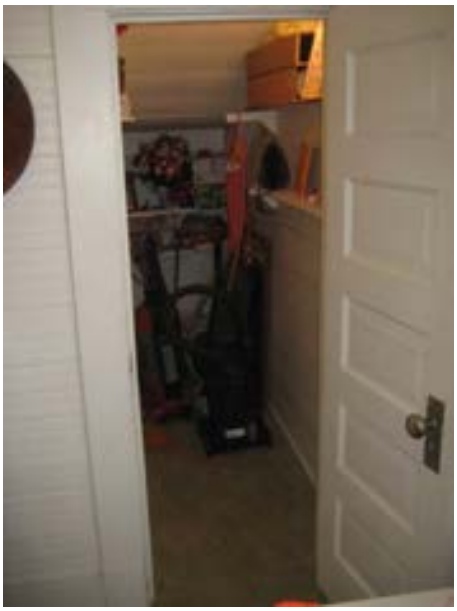


FIGURE 132. Pantry located under the stairs, accessed from the northwest corner of the kitchen. Photograph by BVH, October 16, 2012.

Floor. The flooring of the pantry is composed of rubber rolled linoleum flooring material over 3/4-inch plywood, which replaced the original tongue-and-groove floor at the time of the 1996 work. The flooring is identical to the kitchen floor. The flooring is in good condition.

Walls. The east (kitchen) wall of the pantry is horizontal 3/4-inch by 6-1/2-inch tongue-and-groove edge and center beadboard over the wall studs. The other walls are constructed of full 1-inch by 7-inch half-lap boards, painted white (Figure 133). This is one area within the house in which typical wall construction can be observed because it did not contain an applied finish originally, and the wall construction was not altered or replaced as part of the 1996 work. The walls do not contain any evidence of layering of finishes, and architect Stan Jackson of Cromwell Architects Engineers noted in his interview that the walls of this space were left untouched. The walls are in good condition.

FIGURE 133. Wall assembly in the pantry, looking north. Photograph by BVH, October 16, 2012.

The north wall contains shelf brackets for two shelves, which are rough pine boards painted white without fasteners to secure the shelves to the brackets. The south wall contains wood triangular shelf brackets for one shelf that is nailed to the brackets (Figure 134).

Ceiling. The ceiling of the pantry is constructed of full 1-inch by 7-inch half-lap boards, painted white, and is the underside of the stairs.

Doors and Windows. See description of doors as part of the kitchen. There are no windows in the pantry.

FIGURE 134. South wall of the pantry. Photograph by BVH, October 16, 2012.

Back Porch (Room 106). The back porch is approximately 4 feet 6 inches wide and 6 feet 11 inches long, located in the northeast corner of the first floor. The room contains a door to the kitchen, and another door exits to the north at the east end of the house. During the period of significance, this room was an open screened porch that was 9 feet 4 inches long, with another door to the hallway at the south end of the room. This door can be seen as being infilled on the Cromwell Architects Engineers plans (refer to Figure 110). The southern 2 feet 5 inches was closed off and made into a mechanical closet at the time of the 1996 work, accessed by a door on the east exterior wall of the house and not accessible from within the house.

Floor. The flooring of the back porch is not original to the house and was replaced at the time of the 1996 work. It is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running north and south in the room. The floor has a dark stain finish (Figure 135). The floor is in good condition.

FIGURE 135. Floor of the back porch looking east. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the back porch is horizontal 3/4-inch by 6-1/2-inch tongue-and-groove edge and center beadboard over the wall studs. The beadboard on the north, exterior door wall is original, but the cladding on the other walls dates from the 1996 work (Figure 136). The wall base is composed of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the quarter-round cornice around the perimeter of the ceiling. All trim is painted white. The walls are in fair condition, with some peeling paint in many areas.

FIGURE 136. The beadboard on the wall above the door on the north wall is original, but the beadboard on the east wall dates from the 1996 work. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the back porch is 3/4-inch by 6-1/2-inch tongue-and-groove edge and center beadboard, painted white, installed as part of the 1996 work. The historic board and batten ceiling hatch is located in the attic. The center of the ceiling contains a flush-mount light fixture with a milk glass globe; this fixture was installed in 1996 (Figure 137). No documentation has been discovered to indicate the appearance of the fixture from the period of significance. The ceiling contains areas where the paint finish is peeling, and is in fair condition overall.

FIGURE 137. Light fixture and peeling paint of the ceiling of the back porch. Photograph by BVH, October 16, 2012.

Doors. The back porch contains two doors. The door accessing the kitchen is described in the kitchen analysis (door 104, see Appendix A, sheet A1). The back (exterior) door on the north side of the room is a stile-and-rail door with five horizontal flat panels (Figure 138) that opens into the room (door 105, see Appendix A, sheet A1). The 1-inch by 5-1/2-inch trim contains rounded edges and a plinth block at the bottom. This door is not original. Prior to the 1995–1996 work, the door that is now on the front of the house in the living room was located here and moved to the front. It is unclear whether this back door belonged to the house during the period of significance or was salvaged from another building for use in this location when the back porch was enclosed. The existing door in this location was installed sometime after 1997; photographs taken when the house first opened to the public show a flat panel door at this location.

The hardware consists of a polished brass mortised lockset and matching brass deadbolt above. The door contains three mortised pin hinges that are covered with several coats of paint and are original to the door. The hardware is in good condition.

Windows. There are no windows in the back porch.

FIGURE 138. Exterior north door on the north side of the back porch. Photograph by BVH, October 16, 2012.

Second Floor.

Hallway (Room 201). The second floor hallway begins at the top of the stairs and leads to three bedrooms, a bathroom, and a linen closet. There is also a small door located on the north wall that accesses the former location of an exhaust fan.

Floor. The floor of the hallway is original to the house and is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running the length, north and south, of the space. The floor has a dark stain finish. There is evidence of patching in various locations, as the flooring is not staggered and the grain does not match (Figure 139). The floor is in good condition.

FIGURE 139. Floor of the second floor hall looking north. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the hallway is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The finish of the walls is wallpaper, installed at the same time period as the gypsum board. The wallpaper pattern consists of off-white and tan wide vertical stripes, matching the wallpaper in the living room. The wall base is composed of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the 2-inch by 3-inch cornice around the perimeter of the ceiling. All trim is painted white. The walls are in good condition, with some staining in some areas showing through the wallpaper (Figure 140).

FIGURE 140. West wall assembly of the second floor hall. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the hallway is full 1-inch by 7-inch half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work (Figure 141). The ceiling is painted white with a smooth finish. The center of the ceiling contains a flush-mount light fixture with a milk glass globe; this fixture was installed in 1996. No documentation has been discovered to indicate the appearance of the fixture from the period of significance. A plywood hatch is also located in the ceiling of the hall to access the attic (Figure 142). The original board and batten cover for the attic access hatch is stored in the attic. The ceiling is in good condition.

FIGURE 141. Assembly of ceiling construction, visible at the north edge of the attic hatch. Photograph by BVH, October 16, 2012.

FIGURE 142. Ceiling of the second floor hall with hatch to the attic looking north. Photograph by BVH, October 16, 2012.

Doors. The hallway originally contained a door accessing the stairs to the main level of the house. The frame and jambs are intact, and there is evidence of patching where hinges were once located, but the door stops are missing, as is the door itself (Figure 143) (door opening 209, see Appendix A, sheet A1). At the north wall, the exhaust fan, frame, and door were removed as part of the 1996 work, and a 36-inch by 46-inch hollow core door was put in place of the original (door 203, see Appendix A, sheet A1). Outside of this door, the fan opening is closed up with unfinished plywood (Figure 144). The 1-inch by 2-1/2-inch trim contains rounded edges, with a sill at the bottom of the door, which is approximately 2 feet off the floor. The hardware of the door consists of a nickel-plated door knob with vertical escutcheon plates and skeleton key locks, although there is no keyhole. It is possible that the hardware of the original door in this location was salvaged and reused on the replacement door. The door is in good condition.

Other doors in the hallway are described with their corresponding rooms.

Windows. There are no windows in the second floor hallway.

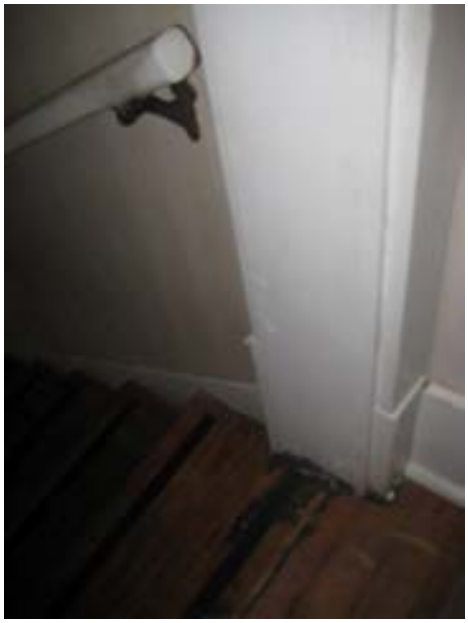


FIGURE 143. Door frame with missing stop and door at the top of the stairs, looking north. Photograph by BVH, October 16, 2012.

FIGURE 144. Hollow core door and plywood north wall where the exhaust fan used to be. Photograph by BVH, October 16, 2012.

Northeast Bedroom (Room 202). This bedroom is located on the northeast corner of the house and was the bedroom of Billy Blythe during the period of significance. This bedroom does not contain a closet.

Floor. The floor of the bedroom is original to the house and is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running north and south within the space. The floor has a dark stain finish. There is evidence of a patch along the east wall, as the flooring is not staggered and the grain does not match. The floor is in good condition.

Walls. The assembly of the walls of the bedroom is horizontal 3/4-inch by 6-1/2-inch tongue-and-groove edge and center beadboard over the wall studs. The walls are painted a pale yellow. The beadboard was replaced as part of the 1996 work and matches the profile of the original that was removed (Figure 145). The wall base is composed of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The cornice around the ceiling and down the corners of the room is quarter-round. All trim is painted white. Paint is peeling below the windows, but the walls are otherwise in good condition.

FIGURE 145. Wall assembly of the west wall in bedroom 202. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the bedroom is 3/4-inch by 6-1/2-inch tongue-and-groove edge and center beadboard, painted white, and was replaced as part of the 1996 work. The center of the ceiling contains a flush-mount light fixture with a milk glass globe; this fixture was installed in 1996 (Figure 146). No documentation has been discovered to indicate the appearance of the fixture from the period of significance. A ceiling register was added as part of the 1996 work. The ceiling is in good condition.

FIGURE 146. Ceiling of the bedroom with light fixture, looking east. Photograph by BVH, October 16, 2012.

Doors. The bedroom contains one door, connecting to the hallway (door 204, see Appendix A, sheet A1). This original door is stile-and-rail construction with five raised horizontal panels. The 1-inch by 5-1/2-inch trim contains rounded edges and a plinth block at the bottom, which dates from the period of significance. The hardware of the door consists of a porcelain knob with nickel-plated vertical escutcheon plates and skeleton key locks (Figure 147). The door is in good condition.

FIGURE 147. Raised panel door on the west wall with porcelain knob. Photograph by BVH, October 16, 2012.

Windows. This bedroom contains four windows, two on the north wall (windows 206 and 207, see Appendix A, sheet A1) and two on the east wall (windows 208 and 209, see Appendix A, sheet A1). The windows are wood true divided light double-hung single-glazed window assembly. The east windows have a twelve-over-one configuration of divided lights, and those of the north wall are sixteen-over-one (Figure 148). The windows are of wood construction. All of the windows were replaced as part of the 1996 work. The configuration of divided lights matches the original windows. The 1-inch by 5-1/2-inch trim was also replaced at the time of the 1996 work. The windows are in fair condition.

FIGURE 148. The windows of the bedroom virtually fill the east and north walls of the room. Photograph by BVH, October 16, 2012.

Bathroom (Room 203). The bathroom contains a clawfoot tub, toilet, and wall-mounted sink. The fixtures are salvaged period-appropriate items installed as part of the 1996 work (Figure 149 through Figure 151). The bathroom contains a clawfoot tub, toilet, and wall-mounted sink. The fixtures are salvaged period-appropriate items installed as part of the 1996 work. The existing fixtures were salvaged from another house in the neighborhood before that structure was demolished.[54]

54. E-mail correspondence from Terry W. Huitt to the authors, June 28, 2013.

FIGURE 149. Clawfoot tub on the east wall of the bathroom. Photograph by BVH, October 16, 2012.

FIGURE 150. Toilet located along the center of the south wall of the bathroom. Photograph by BVH, October 16, 2012.

FIGURE 151. Wall-mounted sink in the southwest corner of the bathroom. Photograph by BVH, October 16, 2012.

Floor. The flooring of the bathroom is composed of rolled linoleum flooring material applied over the original pine tongue-and-groove floor at the time of the 1996 work. The finish of the flooring is of a mottled medium dark green color, matching the kitchen and pantry. The flooring contains a metal transition strip between the bathroom and the hallway (Figure 152). The flooring is in good condition.

FIGURE 152. Flooring in the bathroom with a metal transition strip at the door to the hall, looking east. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the bathroom is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The finish of the walls is wallpaper, installed at the same time period as the gypsum board. The wallpaper pattern consists of green ivy over a white background (Figure 153). The wall base is composed of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the 2-inch by 3-inch cornice around the perimeter of the ceiling. All trim is painted white. The walls are in good condition.

FIGURE 153. Bathroom walls with wall base, looking south. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the bathroom is full 1-inch by 7-inch half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The ceiling is painted white with a smooth finish. The center of the ceiling contains a flush-mount light fixture with a milk glass globe; this fixture was installed in 1996 (Figure 154). No documentation has been discovered to indicate the appearance of the fixture from the period of significance. The ceiling is in good condition.

FIGURE 154. Ceiling and light fixture in the bathroom. Photograph by BVH, October 16, 2012.

Doors. The bathroom contains one door, connecting to the hallway (door 205, see Appendix A, sheet A1). This original door is stile-and-rail construction with five raised horizontal panels. The 1-inch by 5-1/2-inch trim contains rounded edges and a plinth block at the bottom, which dates from the period of significance. The hardware of the door consists of a nickel-plated knob with vertical escutcheon plates and skeleton key locks (Figure 155). The door is in good condition.

FIGURE 155. Bathroom door located on the west wall of the bathroom. Photograph by BVH, October 16, 2012.

Windows. The east wall of the bathroom contains a single small wood true divided-light nine-over-one double-hung single-glazed window (window 210, see Appendix A, sheet A1). The window is of wood construction and is a replacement from the time of the 1996 work. The configuration of the lights matches the original window. Trim was also replaced at the time of the 1996 work. The 1-inch by 5-1/2-inch trim is poor quality material, with knots bleeding through the paint. The weatherstripping at the perimeter of the sash is failing (Figure 156). The window is in fair condition.

FIGURE 156. Bathroom window located on the east wall of the room. Photograph by BVH, October 16, 2012.

West Bedroom (Room 204). This bedroom is located across the entire front of the house and was Virginia Blythe's bedroom during the period of significance (Figure 157).

FIGURE 157. North wall of Virginia Blythe's bedroom. Photograph by BVH, October 16, 2012.

Floor. The floor of the bedroom is original to the house and is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running north and south within the space. The floor has a dark stain finish. The bedroom is where the 1992 fire originated, and as a result, this room sustained the most damage. A large section of fire-damaged flooring was replaced at

the time of the 1996 work (Figure 158). The floor is in good condition.

FIGURE 158. The continuous seam in the floor denotes the replacement portion of the floor due to the fire. The original flooring is at right, looking west. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the bedroom is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The finish of the walls in the bedroom is wallpaper, installed at the same time period as the gypsum board. To confirm the material assembly of the walls, an opening was made through the wallpaper and gypsum board on the east wall (Figure 159). The wallpaper pattern consists of green stripes with flowers over a white background. The wall base is composed of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the 2-inch by 3-inch cornice around the perimeter of the ceiling (Figure 160). All trim is painted white.

FIGURE 159. Material assembly of wall construction, showing the horizontals half-lap wood wall boards behind the gypsum board, located south of the door on the east wall. Photograph by BVH, October 16, 2012.

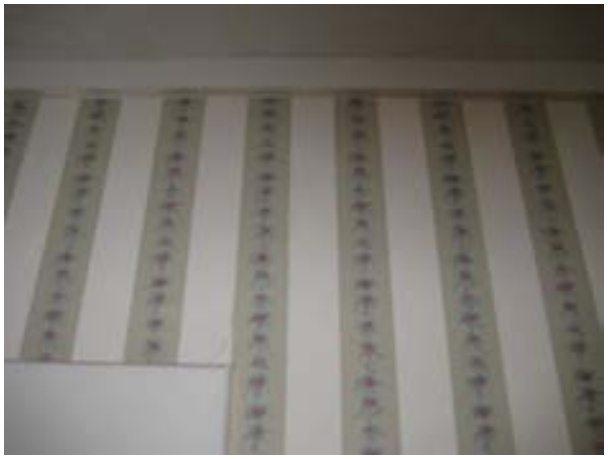


FIGURE 160. Wallpaper and new cornice on the east wall of bedroom 204. Photograph by BVH, October 16, 2012.

The closet walls are also full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work, with matching wallpaper (Figure 161). The boards were exposed with a paint finish and no wallpaper prior to the 1996 work, and it is assumed that this was the finish type from the period of significance.[55] The walls are in good condition.

55. These finishes are visible in the tour of Cassidy House with Virginia Kelley, July 1, 1993.

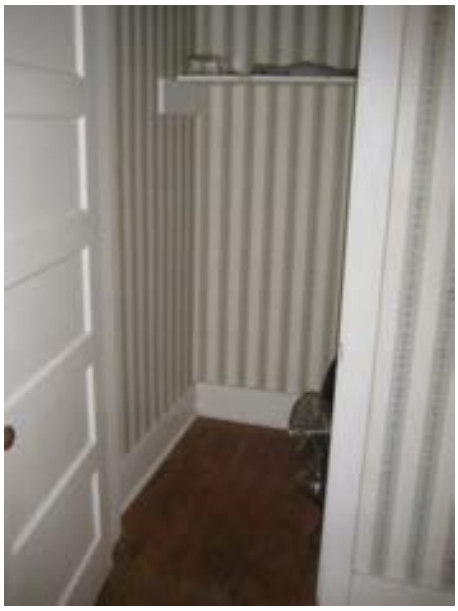


FIGURE 161. Walls of the closet, located in the northwest corner of the room, which were originally exposed half-lap boards, painted, much like the pantry. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the bedroom is full 1-inch by 7-inch half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The ceiling is painted white with a smooth finish. The center of the ceiling contains a flush mount pink glass shade over a single light bulb; this fixture was installed in 1996 (Figure 162). No documentation has been discovered to indicate the appearance of the fixture from the period of significance. There are areas of water damage with evident staining that has been patched (Figure 163). The ceiling is in fair condition.

FIGURE 162. The ceiling and pink glass light shade in bedroom 204. Photograph by BVH, October 16, 2012.

FIGURE 163. Water staining on the ceiling. Photograph by BVH, October 16, 2012.

Doors. The bedroom contains two doors, connecting to the hallway and the closet (doors 201 and 202 respectively, see Appendix A, sheet A1). These original doors are stile-and-rail construction with five flat horizontal panels. The 1-inch by 5-1/2-inch trim contains rounded edges and a plinth block at the bottom, original to the house. The hardware of the door consists of a nickel-plated knob with vertical escutcheon plates and skeleton key locks (Figure 164). The doors are in good condition.

FIGURE 164. Bedroom 204 door on the east wall of the room. Photograph by BVH, October 16, 2012.

Windows. The bedroom contains five windows, three along the west facade (windows 203, 204 and 205, see Appendix A, sheet A1), and two on the south side (windows 201 and 202, see Appendix A, sheet A1). They are wood true divided light twelve-over-one double-hung single-glazed windows. The windows are of wood construction and are replacements from the time of the 1996 work. The configuration of lights matches the original windows (Figure 165). Trim was also replaced at the time of the 1996 work. The 1-inch by 5-1/2-inch trim is poor quality material, with knots bleeding through the paint. The weatherstripping at the perimeter of the sash is failing. The windows are in fair condition.

FIGURE 165. A south and two of the west windows in bedroom 204. Photograph by BVH, October 16, 2012.

Southeast Bedroom (Room 205). This bedroom is located at the southeast corner of the house and was used by Edith and Eldridge Cassidy during the period of significance.

Floor. The floor of the bedroom is original to the house and is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running north and south within the space. The floor has a dark stain finish (Figure 166). The floor is in good condition.

FIGURE 166. Floor of bedroom 205, looking east. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the bedroom is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The finish of the walls in the bedroom is wallpaper, installed at

the same time period as the gypsum board. To confirm the material assembly of the walls, an opening was made through the wallpaper and gypsum board on the south wall between the windows (Figure 167). The wallpaper pattern consists of red flower bunches over a cream background. The wall base is composed of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor. The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the 2-inch by 3-inch cornice around the perimeter of the ceiling (Figure 168). All trim is painted white.

FIGURE 167. Material assembly of wall construction, showing the horizontals half-lap wood wall boards behind the gypsum board, located between the south windows. Photograph by BVH, October 16, 2012.

FIGURE 168. West wall of bedroom 205. Photograph by BVH, October 16, 2012.

The closet walls are also full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house. This closet was inspected by Virginia Kelley during the video tour of 1993.[56] The closet at that time contained a flowered wallpaper that Virginia recognized as possibly being the same as that present when she lived in the house. This wallpaper was removed and the half-lap boards were overlaid with gypsum board at the time of the 1996 work, and finished with a plain cream colored wallpaper (Figure 169).[57] The walls are in good condition.

A second closet was constructed at the south end of this bedroom after the period of significance; the partition wall defining this closet was removed during the 1996 work.

56. Tour of Cassidy House with Virginia Kelley, July 1, 1993.
57. These finishes are visible in the video tour of Cassidy House with Virginia Kelley, July 1, 1993.

FIGURE 169. Bedroom 205 closet on the north wall. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the ceiling of the bedroom is full 1-inch by 7-inch half-lap boards that are original to the construction of the house, overlaid with gypsum board added at the time of the 1996 work. The ceiling is painted white with a smooth finish. The center of the ceiling contains a flush mount white glass shade over a single light bulb (Figure 170). It is unknown whether this fixture dates from the period of significance. The ceiling is in good condition.

FIGURE 170. Ceiling and light fixture in bedroom 205, looking south. Photograph by BVH, October 16, 2012.

Doors. The bedroom contains two doors, connecting to the hallway and the closet (Figure 171) (doors 207 and 206 respectively, see Appendix A, sheet A1). These original doors are stile-and-rail construction with five raised horizontal panels. The 1-inch by 5-1/2-inch trim contains rounded edges and a plinth block at the bottom, original to the house. The hardware of the door consists of a nickel-plated knob with vertical escutcheon plates and skeleton key locks. The door is in good condition.

FIGURE 171. Main door at left and closet door at right on the north wall of the room. Photograph by BVH, October 16, 2012.

Windows. The bedroom contains three windows, two along the south side (windows 212 and 213, see Appendix A, sheet A1), and one on the east side (window 211, see Appendix A, sheet A1). They are wood true divided light twelve-over-one double-hung single-glazed windows (Figure 172). The windows are of wood construction and are replacements from the time of the 1996 work. The configuration of lights matches the original windows. Trim was also replaced at the time of the 1996 work. The 1-inch by 5-1/2-inch trim is poor quality material, with knots bleeding through the paint. The weatherstripping at the perimeter of the sash is failing. The windows are in fair condition.

FIGURE 172. One of the south windows of bedroom 205. Photograph by BVH, October 16, 2012.

Linen Closet (Room 206). The linen closet is located on the west wall of the hallway, across from the bathroom.

Floor. The floor of the linen closet is original to the house and is composed of 2-1/4-inch exposure tongue-and-groove yellow pine running north and south within the space, continuous from the hall. The floor has a dark stain finish (Figure 173). The floor is in good condition.

FIGURE 173. Floor of the linen closet, looking west. Photograph by BVH, October 16, 2012.

Walls. The assembly of the walls of the linen closet is full 1-inch by 7-inch horizontal half-lap boards that are original to the construction of the house, overlaid with plywood to a level above the door (Figure 174). Above the plywood, the original 1-inch by 7-inch wood is exposed, covered with remnants of historic fabric and wallpaper coverings (Figure 175). The wall base is comprised of 3/4-inch by 7-1/2-inch wood with quarter-round at the perimeter of the floor (Figure 176). The original base was removed and replaced with new wood stock at the time of the 1996 work, as was the 2-inch by 3-inch cornice around the perimeter of the ceiling. All trim is painted white. The walls are in good condition.

FIGURE 174. North plywood wall within the closet from the floor to a level above the door, painted white. Photograph by BVH, October 16, 2012.

FIGURE 175. Horizontal half-lap boards with remnants of fabric and paper on the west wall. Photograph by BVH, October 16, 2012.

FIGURE 176. Three shelves and new base in the linen closet. Photograph by BVH, October 16, 2012.

Ceiling. The assembly of the linen closet is the full 1-inch by 7-inch half-lap boards that are original to the construction of the house. A gap between the boards opens the top of the closet to the attic above (Figure 177). They contain no finish. The ceiling is in fair condition.

FIGURE 177. Ceiling of the linen closet, unfinished tongue-and-groove boards, original to the construction of the house. Photograph by BVH, October 16, 2012.

Doors. The linen closet contains one door connecting to the hallway (door 208, see Appendix A, sheet A1). This original door is stile-and-rail construction with five raised horizontal panels. The 1-inch by 5-1/2-inch trim contains rounded edges and a plinth block at the bottom, original to the house (Figure 178). The hardware of the door consists of a spring-loaded cabinet door latch, painted white, as is the door (Figure 179). The door is in good condition.

Windows. There are no windows in the linen closet.

FIGURE 178. The raised panel door of the linen closet. Photograph by BVH, October 16, 2012.

FIGURE 179. Spring-loaded latch of the linen closet door. Photograph by BVH, October 16, 2012.

Structural System Evaluation

The structural system of the Cassidy House was observed visually from available points of access, such as the crawl space access hatches on the east elevation and the attic. Both faces of the first and second floor walls and second floor are covered with non-structural finish materials, so the structural framing could not be observed directly at these locations. Photographs of selected areas of the structure that were exposed during the 1995–1996 work were also reviewed. Based on the regularity of the structural plan and the typical conditions observed at visually accessible locations, inferences have been made about the portions of the structure that could not be observed directly. All wood framing profile dimensions given are nominal unless stated otherwise.

Foundation. The Cassidy House is approximately 30 feet by 30 feet in plan, with brick masonry foundation piers that extend five courses, approximately 1 foot, above grade. Each pier is approximately 1 foot square and those at the perimeter of the house are connected by an integral single-wythe 4-inch brick wall. Below the first floor framing is a crawl space that extends through the entire footprint of the house.

The piers and wall continue below grade level to an unknown depth. It is not known if there are footings present below the foundations. The portions of the piers and wall above grade were rebuilt with new face brick as a part of the 1995 work. Approximately two courses of the original brick are visible from the interior of the crawl space (Figure 180). Based on available documentation, it is unconfirmed whether the single-wythe brick wall was an original element of the foundation at the time of construction in 1917. However, photographs indicate that this foundation detail existed during the period of significance.

In addition to the piers and walls at the perimeter of the house, there is one row of detached 1-foot-square brick masonry piers along the north-south centerline of the house (Figure 181). The spacing of these piers could not be confirmed.

FIGURE 180. The brick masonry foundation consists of 1-foot-square piers and a one-wythe perimeter wall, which were rebuilt above grade during the 1995 work, view looking southwest. Photograph by WJE, October 16, 2012.

FIGURE 181. Detached 1-foot-square piers were observed along the north-south centerline of the house, view looking west. Photograph by WJE, October 16, 2012.

First Floor. The first floor framing was observed in the crawl space at the southeast and northeast corners of the house (Figure 182). The house appears to be typical platform frame wood construction. All connections appear to be nailed throughout the structure.

The first floor joists run east-west spanning between built-up wood beams which run north-south. The two perimeter beams are supported on piers at the east and west walls, while an intermediate beam spans across the piers at the centerline of the structure.

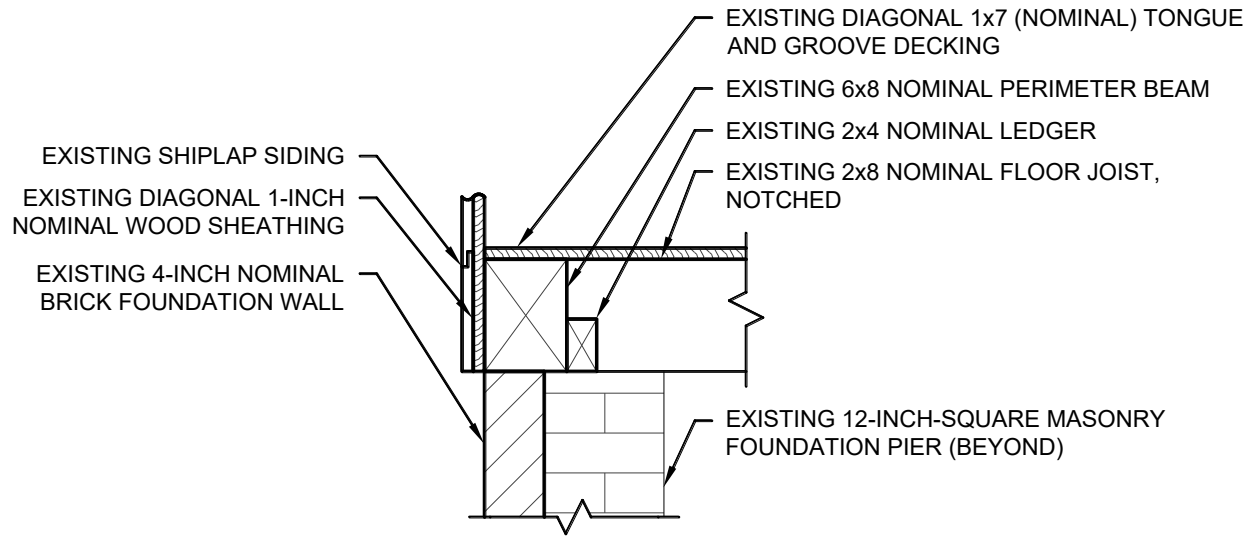


FIGURE 182. Diagram of first floor framing of the Cassidy House.

The 2 by 8 joists are spaced at 20 inches on center with bridging at their midspan (Figure 183). The perimeter beams are composed of a 6 by 8 beam with a 2 by 4 ledger nailed to the interior side of and flush with the bottom of the beam. The joists are notched over the ledger such that the bottoms of the joists are also flush with the bottom of the beam. The intermediate beam appears to have a similar ledger beam detail but with a ledger beam on both sides (Figure 184). The joists support 1 by 7 tongue-and-groove decking, oriented diagonally to the joists.

FIGURE 183. First floor framing consists of 2 by 8 joists at 20 inches on center with bridging at midspan and diagonal tongue-and-groove decking, view looking west. Photograph by WJE, October 16, 2012.

FIGURE 184. Typical joist support condition notched over a 6x8 perimeter beam with a 2 by 4 ledger, view looking east. Photograph by WJE, October 16, 2012.

The framing of the first floor veranda, located at the west side of the house could not be observed directly. However, the veranda was rebuilt in 1995. The construction and condition of the brick veranda piers matches the other new masonry on the structure. Historic photographs from the period of significance show chipped bricks and irregular mortar joint widths that are not apparent in the existing masonry construction. Additionally, photographs from the 1995 work, showing the piers with missing bricks, indicate that the brick piers supporting the veranda were likely entirely rebuilt in 1995. It is believed that the brick piers were only rebuilt above grade, similar to the condition observed at the main foundation.

The first floor walls could not be viewed directly. The walls are 8 feet 11 inches tall measured from top of finished floor to bottom of finished ceiling and approximately 7-1/2 inches thick including trim, indicating 2 by 4 stud walls. A wood stud bearing wall was also observed running north-south at the centerline of the house, aligning with the center beam (Figure 185). Based on review of photographs taken during the demolition phase of the 1995–1996 work, the walls are clad at the interior with horizontal wood planking and at the exterior with diagonal wood sheathing.[58]

58. Refer to figures in the History chapter of this report.

FIGURE 185. Perimeter wall measuring approximately 7-1/2 inches at the first floor indicates stud wall framing, view looking north. Photograph by WJE, October 17, 2012.

Second Floor. The second floor joists could not be observed directly. However, a portion of the second floor flooring in the west bedroom (room 204) was replaced during the 1996 work due to previous fire damage. A review of photographs taken during the 1996 floor replacement indicates that there are 2 by 8 joists beneath the flooring spaced at 20 inches on center with bridging at midspan, similar to that observed at the first floor (Figure 186). Based on the conditions visible in the 1996 photographs, it is believed that only the damaged portion of the finish flooring above the joists was replaced during the 1996 work and that all of the original joists remain today.

FIGURE 186. Interior of the west bedroom, February 5, 1996. Removal of the fire-damaged finish floor exposed the structural joists, bridging, and plank sheathing of the first floor ceiling below. Photo by Terry Huitt from the Clinton Home Restoration Scrapbook prepared by Cromwell Architects, 1997, page 27.

The second floor joists likely span between wood headers at the perimeter walls, as well as at the central bearing wall. The joists support horizontal wood planking at the bottom that forms the first floor ceiling, and tongue and groove wood flooring at the second floor. From review of photos of the localized floor replacement during the 1996 work, there does not appear to be any structural decking beneath the tongue and groove finish flooring at the second floor.

The stud walls and central bearing wall continue through the second floor. At this level the wall height was measured to be 8 feet 4 inches from finished floor to finished ceiling. The studs appear to be sheathed similarly to the first floor walls at the interior and exterior.

Stair from the First to Second Floor. The stair between the first and second floors is located along the north exterior wall of the house. The construction of the stair appears to be typical wood construction; however, the stair framing was concealed by interior finishes.

Roof. The second floor ceiling framing and the roof framing were observed from the attic space, accessible through a ceiling hatch at the second floor hallway. The second floor ceiling consists of 2 by 6 joists spaced at 24 inches on center spanning east-west approximately 15 feet between the top plate of the central bearing wall and the top plate of the east and west exterior walls. These joists extend approximately 30 inches beyond the face of the perimeter wall to form the roof soffit. The last east-west spanning joist is located approximately 28 inches inward from the north and south exterior wall top plates. From this joist, north-south kicker joists extend over the exterior wall and cantilever beyond for approximately 30 inches. There is horizontal 2 by 4 blocking between the kicker joists at the location of the exterior wall. At all four elevations, the joists

and kicker joists support a plywood soffit and vertical 2 by 4 blocking that, in turn, support the fascia. A majority of the soffit framing was rebuilt as a part of the 1995 work. One-inch wood half-lap planking is nailed to the bottom of the joists as the second floor ceiling (Figure 187).

FIGURE 187. Second floor ceiling joists span east-west, with kicker joists framing to the north and south to support the soffit framing, view looking north. Photograph by WJE, October 17, 2012.

The roof is framed with eight main rafters that meet at a point at the center of the house: four 2 by 6 hip rafters extending down to each corner and four 2 by 4 common rafters that extend down to the midpoint of each side of the roof. At the peak, the roof is 8 feet 4 inches high measured from the bottom of the peak to the top of the second floor ceiling joists (Figure 188). Each of the four common rafters is braced by a vertical 1 by 6 member and a 2 by 4 diagonal member. The four diagonal braces come together near the middle of the attic. The east-west braces abut end to end over the bearing wall top plate, while in the north-south direction, the diagonal braces bypass one another to frame into the side of adjacent ceiling joists (Figure 189 and Figure 190).

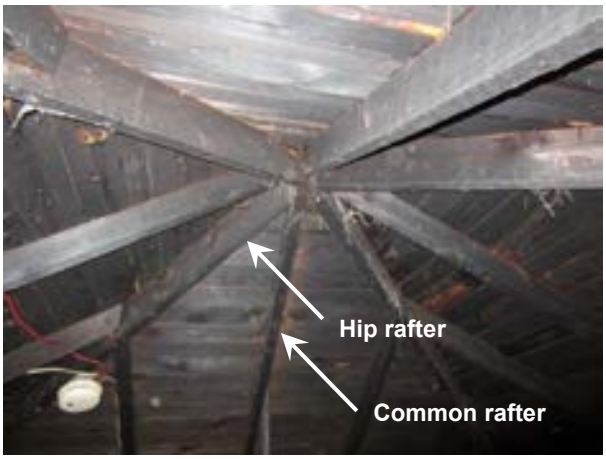


FIGURE 188. Four hip rafters and four common rafters frame the peak of the roof, view looking up, facing east. Photograph by WJE, October 16, 2012.

FIGURE 189. Common rafter with brace members that cross at midspan in the north-south direction. Hip jack rafters frame into a hip rafter beyond, view looking southwest. Photograph by WJE, October 17, 2012.

FIGURE 190. Bearing conditions of cross-bracing over the central bearing wall in the north-south and east-west conditions, view looking south. Photograph by WJE, October 16, 2012.

The remainder of the roof is framed by hip jack rafters spaced at approximately 24 inches on center. Each rafter extends down and bears atop a joist or kicker joist at the perimeter of each elevation (outward from the exterior walls). A 1-inch-thick wood gusset plate, cut so as to create the bell-curved profile of the roof perimeter, is nailed alongside each joist-rafter intersection. Horizontal 1-inch-thick roof decking of varying widths spans over the top of the rafters (Figure 191).

FIGURE 191. Typical roof rafter connection detail at ceiling joist, view looking west. Photograph by WJE, October 17, 2012.

At the center of the west elevation of the roof, a hipped dormer is framed out with conventional 2 by 4 construction (Figure 192). The rafters from the main roof continue through the dormer opening instead of framing into the dormer roof. No wood sheathing was observed on the sidewalls of the dormer. Metal flashing was observed at the valley between the main roof and the dormer roof. A non-original 2 by 4 shoring knee wall is built between the floor joists and the rafters at the location of the dormer opening, likely built as part of the 1995–1996 work (Figure 193).

FIGURE 192. View of roof framing at the hipped dormer on the west side of the roof, view looking west. Photograph by WJE, October 16, 2012.

FIGURE 193. Common and hip jack rafters, which continue through the dormer opening at the west elevation, are supported on a non-original 2 by 4 knee wall frame, view looking southwest. Photograph by WJE, October 16, 2012.

As a part of the 1995 work, a majority of the kicker joists, all of the rafter-to-joist gussets, all soffit material, and localized areas of the roof were rebuilt, including a portion of the northeast corner of the roof (Figure 194). The new elements are readily distinguishable; original wood framing at the roof has darkened from attic heat and smoke staining resulting from the 1992 fire.

FIGURE 194. Northeast corner of the attic where portions of the roof and soffit framing were previously repaired or replaced, view looking northeast. Photograph by WJE, October 16, 2012.

A brick masonry chimney was observed to the northeast of the roof centerline, approximately 16 inches square. The chimney top had been previously cut back below the roof surface, and the penetration was roofed over with wood planking. However, this modification is believed to have occurred prior to the 1992 fire and repair work because the framing and decking above the chimney is continuous and smoke stained (Figure 195). Therefore, it is possible that major portions of the roof structure or decking were replaced at some point during the lifetime of the house prior to 1992.

FIGURE 195. A 16-inch-square brick chimney was noted to have been cut below the roofline prior to the 1992 fire, evidenced by the charred wood planking directly above it, view looking northeast. Photograph by WJE, October 16, 2012.

Condition Assessment.

Foundation.

- The foundation has experienced noticeable differential settlement since it was rebuilt in 1995. Cracking and deflections were observed in the brick above grade, with up to 1/4 inch lateral movement and approximately 3/8 inch vertical movement. Additionally, several localized loose bricks were noted. This is consistent with the expansive soils that are typical in Hempstead County (Figure 196 and Figure 197).

- The new brick courses do not align with the original or earlier masonry foundation. At some locations the bricks appear to have been cut to an irregular size in order to accommodate differential settlement of the earlier foundation. Furthermore, at the south elevation, a course of parging was observed to fill the lateral offset between the bottommost course of new brick and the topmost course of existing brick (Figure 198).

- The Cromwell Architects Engineers drawings call for "brick underpinning as required"; however, there are no signs that any work was performed below grade.[59] Additionally, the depth and condition of the existing foundation below grade is unknown.

59. Cromwell Architects Engineers, "*Clinton First Home Renovation,"* Sheet A3.1, Elevations (Little Rock, Arkansas, n.d. [1995]).

FIGURE 196. Typical cracking and deflections up to 3/8 inch observed at the masonry foundation, view looking north. Photograph by WJE, October 16, 2012.

FIGURE 197. Loose brick observed at the east side of the masonry foundation, view looking west. Photograph by WJE, October 16, 2012.

FIGURE 198. Misaligned transition between the new foundation (above) and old foundation bricks (below) observed at the south elevation, view looking northeast. Photograph by WJE, October 16, 2012.

First Floor.

- At the crawl space vent where the first floor framing was accessible, some wood decay was observed consistent with termites. It was unclear if this decay is active; however, there were no obvious signs of current insect activity. Depending on the extent of the damage, the capacity of the first floor framing could be reduced (Figure 199). There did not appear to be active fungal decay (rot) at the observed framing location.

- In general, the notched support detail observed at the joists significantly limits the load-carrying capacity of the floor system. The notched violates the provision of Section 4.4.3 of the *National Design Specification for Wood Construction* (NDS) which states, “End notches, located at the ends of sawn lumber bending members for bearing over a support . . . shall not exceed 1/4 the beam depth.” In this case, the typical 3-1/2-inch-deep notch exceeds that limiting value by approximately 1-1/2 inches.

FIGURE 199. Evidence of termite damage was observed at the first floor framing, view looking northwest. Photograph by WJE, October 16, 2012.

Second Floor.

- The framing of the second floor could not be observed directly. However, the second floor was noticeably sloped downward to the south. However, this condition does not appear to be an issue at this time.

Roof.

- The 1992 fire that occurred on the second floor of the house left surface charring or smoke staining on a majority of the roof framing. However, the wood does not appear to be significantly damaged, and there are no visual indications that the wood strength is significantly compromised due to the fire. Additionally, the staining is mostly limited to the upper half of the attic framing and is likely due to smoke that rose to the attic from the flames on the second floor (Figure 200). This condition does not appear to be an issue at this time.

- A couple of joists and rafters were also noted to have significant splits or section loss. During the 1995–1996 work, these were addressed with the addition new members sistered directly adjacent to them (Figure 201). This condition does not appear to be an issue at this time.

- The northwest hip rafter has a split, and the split coincides with a location where two hip jack rafters frame into the member. The split has propagated through the entire cross-section of the rafter, and the two vertical of the rafter surfaces were noted to be offset from one another. The split was observed to have occurred prior to the fire, as smoke staining was observed on the interface of the split. Additionally, a 2 by 4 post was observed to be nailed directly below the location of the split, likely as a means to prop up the split rafter. This post was also observed to be stained, and therefore, installed prior to the 1992 fire. The hip rafter does not appear to have been repaired during the 1995–1996 work (Figure 202).

- The northeast hip rafter was also observed to be split all the way through the section. Again, the split coincided with two hip jack rafters framing into the member. Minimal discoloration was observed on the surface of the rafter, and the surface of the crack appeared to be completely free of smoke discoloration. Therefore, it is believed that this split propagated after the 1992 fire. No post was observed to support this split location. Similarly, no 1995–1996 repair work was observed (Figure 203).

- A number of locations were observed where roof planking was cracked or completely missing, with the roofing underlayment material exposed through the opening (Figure 204).

FIGURE 200. Roof framing was discolored and exhibited surface charring due to the 1992 fire at the second floor. Note, the discoloration is mostly limited to the upper portion of the attic, view looking west. Photograph by WJE, October 16, 2012.

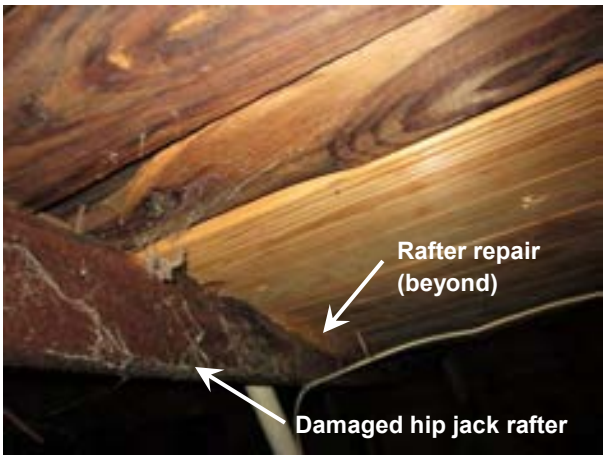


FIGURE 201. Previously repaired hip jack rafter at location of severe section loss, view looking east. Photograph by WJE, October 16, 2012.

FIGURE 202. Split and displacement observed at the northwest hip rafter. Note, a post repair had been implemented prior to the 1992 fire. Looking northwest. Photograph by WJE, October 17, 2012.

FIGURE 203. Northeast hip rafter with a break through the entire cross-section, view looking northeast. Photograph by WJE, October 16, 2012.

FIGURE 204. Typical area of localized cracking observed at roof planking, view looking southwest. Photograph by WJE, October 16, 2012.

Preliminary Structural Review. A preliminary structural review was performed to determine a general superimposed live load capacity for the first floor of the Cassidy House. This space is currently used for limited tours by the National Park Services.

The first floor is typically constructed of 2 by 8 wood joist framing spanning east-west between built-up wood beams at the perimeter and centerline of the building. The joists are notched over a 2 by 4 ledger beam for a bearing support at both ends of the joist. The joists are typically spaced at 20 inches on center with bridging at midspan. The framing is assumed to have a maximum span of approximately 15 feet on center.

A number of assumptions were made for the purpose of this evaluation. Wood samples taken from the first floor framing established that the wood species is likely longleaf pine, a type of southern yellow pine. Strength properties of the wood were based on values published in the 2005 *National Design Specification for Wood Construction* (NDS 2005) for number 2 grade and number 1 grade sawn lumber. It was assumed that all connections are adequate to transfer the required demands and that no significant defects exist that would compromise the capacity of the joists. The joists are

considered as governing the floor capacity. Additionally, it was assumed that the joists are adequately braced according to the NDS 2005 specification. Finally, the framing was considered for both bending and shear action.

The existing dead load values were approximated using typical values published in the *ASCE Standard 7: Minimum Design Loads for Buildings and Other Structures* (ASCE 7-05). The dead loads considered include the joists, subflooring, a hardwood floor, and an allowance for mechanical loads, yielding an approximate existing dead load of 12 psf. The dead load was subtracted from the total allowable uniform load capacity to determine the allowable superimposed live load.

Based on the preliminary evaluation, the 2 by 8 joist framing, as governed by bending and under the stated assumptions, has an allowable uniform superimposed live load of approximately 20 psf for No. 2 grade or 28 psf for No. 1 grade. However, the observed notch condition violates the provision of Section 4.4.3 of the NDS 2005 which states, “End notches, located at the ends of sawn lumber bending members for bearing over a support . . . shall not exceed 1/4 the beam depth.” In this case, the typical 3-1/2-inch-deep notch exceeds that limiting value. In order to get a general understanding of how this notch condition affects the capacity of the joist, regardless of this violation, current design equations show that the allowable live load capacity of the joist is significantly reduced to approximately 2 psf. Therefore, it is recommended that the notched condition be addressed in order to achieve the allowable capacity of the joist in bending.

A more comprehensive investigation will be required to verify the assumptions made and to determine a more accurate visual grading of the wood. Additionally, the second floor framing of the Cassidy House is assumed to be similar to that of the first floor based on photographs from the 1995–1996 work; however, this could not be confirmed due to the existence of architectural finishes. It would also be prudent to verify the framing at the second floor prior to increasing floor loads at this location.

Mechanical Evaluation

Heating, Ventilating, and Air Conditioning (HVAC). The Cassidy House underwent an air conditioning and heating systems upgrade in 1996. Equipment installed in that project was previously used and had been donated to the Clinton Birthplace Foundation by an unknown private entity. The 1996 HVAC systems installed at that time at the Cassidy House included two independent gas-fired heating and electric cooling furnace systems, with one system serving the first floor and the other serving the second floor. The building renovation drawings indicate that the Cassidy House was to be upgraded to provide new furnaces with a heating capacity of 53,000 British Thermal Units per Hour (BTUh) each, based on a gas input of 66,000 BTUh, indicating an 80 percent thermal efficiency. The cooling capacity of the two systems was 22,000 BTUh per system (two tons each). It is assumed that the donated equipment provided met these listed capacities.

The first floor system utilized an under-floor duct system located in the crawlspace below the floor, and the second floor system utilized an attic-located air distribution duct system. Heat rejection was accomplished by a grade-mounted condensing unit coupled with the furnace evaporator coils.

Minimal outside air was to be provided to the furnace systems as part of the renovation design drawing equipment schedules. The drawings do not indicate how the outside air was to be introduced or connected to the furnace return air duct systems.

Prior to the 1995–1996 work, it is assumed that the Cassidy House was heated by a simple gas-fired, forced air ventilating system. The system utilized only one main return air grille. This grille was located at the first floor living room and remains today as the primary return air inlet for the first floor (Figure 78). The first floor fireplace may also have been originally used for heating. Prior to the 1990s, the chimney was removed from above the roof to a level within the attic of the house and was sealed off (Figure 206).

FIGURE 205. Return air filter grille for the first floor furnace system located in the living room floor (living room 101). Photograph by Alvine, May 15, 2013.

FIGURE 206. In the attic of the Cassidy House, the existing chimney has been removed to below the level of the attic ceiling. Also note the existing lighting fixture. Photograph by Alvine, May 15, 2013.

Four radiation heaters that are extant today appear to be original to the house. The heaters are located at bathroom 203 (Figure 207), northeast bedroom 202 (Figure 208), southeast bedroom 205 (Figure 209), and west bedroom 204(Figure 210). The operable windows in the Cassidy House were used to provide fresh air ventilation during the summer months prior to the installation of central air conditioning. At the top of the stairs at the second floor, a ventilation

fan was located at the north exposure. This fan was removed as part of 1995–1996 work. The opening where the fan had resided was sealed off with a plywood panel (Figure 211).

FIGURE 207. Second floor wall-located heater in bathroom 203 of the Cassidy House. Photograph by Alvine, May 15, 2013.

FIGURE 208. Second floor heater at northeast bedroom 202of the Cassidy House. Photograph by Alvine, May 15, 2013.

FIGURE 209. Second floor heater at southeast bedroom 205 of the Cassidy House. Photograph by Alvine, May 15, 2013.

FIGURE 210. Second floor heater at west bedroom 204 of Cassidy House. Photograph by Alvine, May 15, 2013.

FIGURE 211. Second floor opening in exterior wall where the ventilation fan has been removed, now covered over with plywood. Photograph by Alvine, May 15, 2013.

In 2011, the Cassidy House underwent a complete heating and air conditioning equipment upgrade to provide the facility with more energy efficient systems. The first floor furnace is installed in HVAC closet 107 between the kitchen and back porch, along the east side of the building. Access to the HVAC closet is only from the exterior of the building through a lockable exterior door. The closet has two grilles located on the exterior face of the access door that provide a path for combustion air into the closet for furnace operation (Figure 212 and Figure 213). Due to the closet's exterior door being exposed to the elements, it is in poor condition with water damage and general deterioration near the bottom of the door (Figure 213). The furnace in the HVAC closet is vertically configured, with its supply air discharge at the top of the furnace (Figure 214) and return intake at the bottom of the unit (Figure 215). The first floor furnace is a Trane Model TUD2B060A9V3VB, 80 percent thermal efficient furnace with two-stage gas heat and 60,000 BTUh output. The furnace is coupled with a Trane Model 4TXCB032BC3HCB cased evaporator coil. The evaporated coil is served by a grade-mounted Trane Model 4TWX6024E1000B, air-cooled heat pump unit with a seasonal energy efficiency rating (SEER) of 16. The heat pump and evaporator combination have a cooling capacity of two tons.

The Cassidy House first floor has an area of approximately 30 feet by 30 feet, or 900 square feet. Based on 400 to 450 square feet per ton, it appears the existing first floor two-ton HVAC system is appropriate in capacity for the first floor of the house and does not appear to be oversized.

FIGURE 212. Top of HVAC closet door with ventilation grille in door. Photograph by Alvine, May 15, 2013.

FIGURE 213. Bottom of exterior HVAC closet door indicating lower ventilation grille and door deterioration. Photograph by Alvine, May 15, 2013.

FIGURE 214. Furnace in Clinton House exterior equipment closet. Photograph by Alvine, May 15, 2013.

FIGURE 215. Bottom section of furnace in Cassidy House HVAC closet. Photograph by Alvine, May 15, 2013.

The supply air ductwork from the first floor furnace is offset behind the furnace, extends down into the crawl space below the first floor, and is connected to crawl space ductwork that has been in place since the 1995–1996 work. According to maintenance personnel, the existing ductwork at the crawl space has been resealed and insulated with 1-1/2 inch-thick fiberglass duct insulation. The supply air ductwork at the crawl space branches out to floor-mounted supply air registers located in the various rooms of the first floor. The floor registers are stamped metal grilles with integral foot-operated dial, single-blade damper controls and have a brown painted finish (Figure 216).

FIGURE 216. Floor supply air register in dining room 102 of the Cassidy House (typical of all first floor supply air registers). Photograph by Alvine, May 15, 2013.

The return air pathway for the first floor furnace system originates from the previously noted floor return air grille in living room 101. The grille has an integrated frame, allowing the use of 1 inch pleated filters. Filter maintenance occurs here at the floor grille in lieu of having to go outside the house to change filters. The return air duct in the crawl space is insulated with 1 -1/2-inch-thick fiberglass duct insulation.

There is no outside air ductwork installed at the return air duct for the first floor furnace system.

The Cassidy House is not normally an occupied building; therefore, outside air for occupants is not required. There are no operating exhaust systems that would require outside make-up air. The house would be therefore considered a neutral pressure building.

The second floor furnace is located in the attic of the house, with access provided through a removable ceiling hatch located hallway 201 outside the bathroom and bedrooms. The second floor furnace is a horizontally configured unit (Figure 217). This furnace is a Trane Model TUD2B060A9V3VB, 80 percent thermal efficient furnace with two-stage gas heat and 60,000 BTUh output. The furnace is coupled with a Trane Model 4TXCB032BC3HCB cased evaporator coil.

The Cassidy House second floor has an area of approximately 30 feet by 30 feet, or 900 square feet. Based on 400 to 450 square feet per ton, it appears the existing first floor two-ton HVAC system is appropriate in capacity for the second floor of the house and does not appear to be oversized.

The second floor furnace has an overflow condensate drain pan located below to protect building materials in the event of a condensate drain blockage (Figure 218). It is unknown if the overflow pan has a water sensor to shut down the furnace system in the event that water is

present in the overflow pan, which would occur if the main condensate drain had a blockage.

FIGURE 217. Horizontal furnace located in the attic, serving the second floor of Cassidy House. Photograph by Alvine, May 15, 2013.

FIGURE 218. Horizontal furnace and secondary drain pan located in the attic. Photograph by Alvine, May 15, 2013.

The second floor furnace evaporator coil is served by a grade-mounted, Trane Model 4TWX6024E1000B air-cooled heat pump unit with a SEER rating of 16. The heat pump and evaporator combination have a cooling capacity of two tons.

The second floor furnace system supply air and return air ductwork is routed throughout the attic space to serve the various rooms at the second floor (Figure 219). Similar to the first floor ductwork in the crawlspace, the joints in the second floor ductwork have been sealed and the ductwork has been insulated with 1-1/2-inch-thick fiberglass insulation.

FIGURE 219. Insulated supply air ductwork, located in attic, serving second floor of Cassidy House. Photograph by Alvine, May 15, 2013.

Supply air is provided at the second floor bedrooms and bathroom by means of multi-blade ceiling supply air registers (Figure 220). The registers are white, matching the ceiling color.

FIGURE 220. Ceiling-located supply air diffuser at second floor west bedroom 204 of Cassidy House (typical of all second floor rooms). Photograph by Alvine, May 15, 2013.

Return air for the second floor system is provided by means of a white painted steel wall return air grille located at the main corridor outside the second floor bedrooms and bathroom (Figure 221). The return air grille includes an integral filter frame, allowing filters to be located directly behind the grille face. Filter removal and replacement occur at this grille location at the second floor, so that filters can be replaced without accessing the attic. The return air ductwork connected to the hallway grille is located in the closet of the adjacent bedroom.

This duct is offset into the attic and routed over to connect to the furnace (Figure 222).

FIGURE 221. Return air filter grille in hallway 201 at second floor of Cassidy House. Photograph by Alvine, May 15, 2013.

FIGURE 222. Return air duct connected to hallway return grille, located in the closet of southeast bedroom 205 of Cassidy House. Photograph by Alvine, May 15, 2013.

There is no outside air ductwork installed at the return air duct for the second floor furnace system. As noted above, the Cassidy House is not normally an occupied building; therefore, outside air for occupants is not required. There are no operating exhaust systems that would require outside make-up air. The house would therefore be considered a neutral pressure building.

The exterior heat pump units serving the first floor and second floor furnace systems are located on grade between the east side of the building and an adjacent privacy fence associated with the property to the east. There are approximately 12 inches between the west side of the condensing unit and the Cassidy House structure and approximately 16 inches from the condensing unit to the adjacent fence (Figure 223). The distance between the units and the house and adjacent privacy fence do not appear to meet installation clearance requirements from the equipment manufacturer. Generally a minimum clear distance of 3 feet is required around grade-mounted condensing units and heat pumps to maintain adequate air circulation around the unit and provide adequate space for equipment maintenance. According to maintenance personnel, the systems appear to be operating satisfactorily despite the tight space in which the exterior heat pump units are installed.

FIGURE 223. Cassidy House air-cooled heat pumps located on grade between house and adjacent property fence. Photograph by Alvine, May 15, 2013.

Temperature Control. Temperature control for both the first floor and second floor furnace systems is accomplished by use of electronic, seven-day programmable thermostats. The system thermostats are Trane Model TCONT802AS32DA. There is a thermostat located at each floor, and each thermostat has a plastic lockable cover, preventing unauthorized thermostat manipulation (Figure 224 and Figure 225).

FIGURE 224. Cassidy House first floor HVAC system control thermostat located in dining room 102. Photograph by Alvine, May 15, 2013.

FIGURE 225. Cassidy House second floor HVAC system control thermostat located in hallway 201. Photograph by Alvine, May 15, 2013.

*Code Compliance/Life Expectancy***.** There are no mechanical code-related issues regarding the HVAC systems serving the Cassidy House. As the house is not occupied except during brief tours, the furnace systems currently do not incorporate any outside air for ventilation.

As the HVAC systems were installed in 2011 and are only two years old, they should have a life expectancy of another fifteen to twenty years.

Plumbing Systems and Utilities. The plumbing system for the Cassidy House remains today very much as it did when renovation work was undertaken as part of the 1995–1996 work. Building plans from that time indicate that the sanitary sewer and vent system, along with all of the interior potable cold and hot piping was to have been removed and replaced. New 1 inch water and 4 inch sanitary sewer utilities were to be provided to the house. Mechanical drawings associated with the 1995–1996 renovation work indicate that the utilities serving the Cassidy House were to enter the house from the east. Civil drawings provided as part of the Cassidy House renovation work do not indicate the routing of the water and sanitary utilities on site; therefore, it is unclear from which street the utilities were to extend. The drawings indicate that the water meter for the water utility is outside the house, perhaps at a meter vault. As the facility is now a museum, the plumbing systems are not active for everyday use.

Most of the piping for the plumbing system is not visible. It is assumed that the sanitary sewer and vent piping system is composed mainly of cast iron waste pipe. The potable water piping located in the crawl space below the first floor is believed to be galvanized steel with threaded fittings. In locations where the potable water piping is visible, it is uninsulated copper piping. The type of pipe-fitting solder material is unknown.

There is no internal storm piping system serving the Cassidy House. It is served by exterior gutters and downspouts similar to other residential homes in the area.

Natural gas utility service supports the two furnace heating systems. The utility company gas meter and gas entrance are located at the east side of the house (Figure 226). Natural gas piping in the Cassidy House is comprised of black steel pipe with threaded fittings. Flexible

gas tubing is present at the furnace locations for final equipment connection.

FIGURE 226. Cassidy House gas meter and service entrance location at east side of house. Photograph by Alvine, May 15, 2013.

Older plumbing fixtures appear to have been removed and replaced as part of the 1995–1996 work. At the first floor kitchen is a counter-mounted sink (Figure 227), with waste and water piping located in the cabinet space below (Figure 228). A small 6-gallon, 120-volt, 1.5 kW, electric water heater is located below the kitchen sink in a galvanized steel pan (Figure 229). The water heater appears to have served the kitchen sink and second floor bathroom lavatory and bathtub.

FIGURE 227. Counter-mounted sink and faucet located in kitchen 104. Photograph by Alvine, May 15, 2013.

FIGURE 228. Cassidy House under-cabinet waste and water supply piping serving kitchen counter-mounted sink above. Photograph by Alvine, May 15, 2013.

FIGURE 229. Cassidy House under-cabinet electric water heater serving kitchen counter-mounted sink. Photograph by Alvine, May 15, 2013.

At the second floor bathroom are located a wall-mounted lavatory, a floor-set flush-tank water closet, and a bathtub with feet. These fixtures are not original to the house and are replacement fixtures installed as part of the 1996 work. The fixture styles, including the faucets, were salvaged from a nearby building being demolished and were selected to represent the fixture style of the home during the period of significance. The sanitary waste piping and potable water piping exposed in the bathroom is chrome plated (Figure 230 through Figure 232).

FIGURE 230. Waste and water supply piping serving lavatory at Cassidy House second floor bathroom 203. Photograph by Alvine, May 15, 2013.

FIGURE 231. Water supply piping serving water closet at Cassidy House second floor bathroom 203. Photograph by Alvine, May 15, 2013.

FIGURE 232. Waste and water supply piping serving bathtub at Cassidy House second floor bathroom. Photograph by Alvine, May 15, 2013.

The fixtures at the second floor bathroom 203, along with the sink at the first floor kitchen 104, have been well maintained and represent the fixture style of the home during the period of significance.

It is assumed that the Cassidy House water and sanitary utilities serving the first and second floor plumbing fixtures are active. As understood from discussions with park staff, utilities have not been shut off and retained only for display.

There is a salvaged period-type vertical water heater located in the southwest corner of the first floor kitchen. This heater is connected to water piping and a flue. The piping and flue terminate at the adjacent walls. The water heater is not active and has been installed in this location for its historic appearance. As noted in the hazardous materials assessment (Appendix B), the insulation within the water heater contains asbestos. The piping and flue are not active and have simply been mounted to the walls (Figure 233).

FIGURE 233. Existing non-functional water heater, flue duct, and water supply piping at first floor kitchen 201 of Cassidy House. Photograph by Alvine, May 15, 2013.

There is one wall-mounted hose bibb at the Cassidy House. It is located at the east side of the structure near the grade-mounted heat pump units. The hose bibb appears to be of a freeze proof design.

Code Compliance/Life Expectancy. There are no code-related issues regarding the plumbing systems serving the Cassidy House.

As the plumbing systems present at the Cassidy House are non-active due to the house being a museum, the plumbing systems should continue to serve the house for the foreseeable future.

Fire Protection. There is no fire protection system currently in place at the Cassidy House.

Electrical Evaluation

Primary Power Distribution. The electrical primary power that serves the President William Jefferson Clinton Birthplace Home National Historic Site pad-mounted transformer is routed south, underground off of National Park Service property to Second Street in an area originally designated as an alley.

The primary power serves a power company 50 kVA pad-mounted transformer. The secondary output of the transformer is 120/240-volt, single-phase, three-wire. The pad-mounted transformer is located off of National Park Service property in an area originally designated as an alley, approximately 25 feet south of the comfort station (Figure 234).

FIGURE 234. Power company pad-mount transformer and visitor center meter pedestal located in the former alley behind a wood fence, 25 feet south of comfort station. Photograph by Alvine, May 15, 2013.

The pad-mounted transformer serves the Cassidy House, the visitor center, and two other private residences on the same block.

Electrical Service. From the pad-mounted transformer, an underground 120/24-volt, single-phase, three-wire, 100-amp secondary electrical feeder is routed west between the wood fence and metal fence through the former alley to a 100-amp meter socket on the side of the building (Figure 235). From the meter socket, the 100-amp secondary feeder is stubbed through the wall into a load center. The load center is located on the exterior wall of back porch 106.

FIGURE 235. Cassidy House electric meter and telephone. DeMark service entrance. Photograph by Alvine, May 15, 2013.

The load center is a Square D, QO type, 120/240-volt, one-phase, three-wire, with ground bar, 16-pole, flush mounted. There are eight active 20/1 breakers, four spare 20/1 breakers, and two 20/2 breakers. The electrical service was installed in 1996 (Figure 236).

FIGURE 236. Cassidy house electrical load center. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The electrical service meets the minimum requirement of the National Electrical Code (NEC). The life expectancy of the electrical service is at least twenty years from present time. A future fire sprinkler project may locate the sprinkler main on the back porch. Refer to fire protection commentary under Mechanical Recommendations. The new fire sprinkler main would need to be located to avoid interference with the required work space in front of the load center.

Interior Wiring. The building is wired with non-metallic sheathed cable (NMC). The NMC has copper conductors and a ground wire. The NMC is concealed in walls and above ceilings. The NMC in the attic is not installed with good workmanship and is not supported correctly. NMC cable that is run across the top of joists and rafters shall be protected by substantial guard strips that are at least as tall as the cable per NEC Articles 334.23 and 320.23 (Figure 237 and Figure 238). Plywood has been added on the top of the attic trusses for walkways and mechanical equipment support. In some areas, NMC is located between the plywood and trusses, and the NMC is pinched and possibly damaged by this installation (Figure 239). The interior wiring was installed in 1996 as indicated by NPS staff. There are outside disconnect switches serving the condensing units (Figure 240). The original interior wiring was knob and tube type. Some of this wiring, which is inactive, is visible in the attic (Figure 241, through Figure 243). The abandoned knob and tube wiring should be retained for historical value.

FIGURE 237. Cassidy House showing incorrectly supported nonmetallic sheathed cable in attic. Photograph by Alvine, May 15, 2013.

FIGURE 238. Wiring to exhaust fan in attic. Photograph by Alvine, May 15, 2013.

FIGURE 239. Cassidy House showing pinched nonmetallic sheathed cable under wood platform. Photograph by Alvine, May 15, 2013.

FIGURE 240. Cassidy House condensing unit disconnect switch on the east side of the house. Photograph by Alvine, May 15, 2013.

FIGURE 241. Original inactive knob and tube wiring in attic. Photograph by Alvine, May 15, 2013.

FIGURE 242. Original inactive knob and tube wiring and nonmetallic sheathed cable in attic. Photograph by Alvine, May 15, 2013.

FIGURE 243. Inactive knob and tube wiring and incorrectly supported nonmetallic sheathed cable. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The NMC installation in the attic does not meet the minimum NEC requirements. The life expectancy of the interior wiring is another fifteen years. However, since the interior wiring is not code-compliant, the wiring should be replaced soon. This is a critical issue.

Grounding. The grounding electrode system for the electrical service is grounded to the water service and also connected to a driven ground rod. Brand circuits utilize the ground wire in the NMC for the equipment grounding conductor. The grounding system was installed in 1996 as part of the comprehensive electrical work on the building.

Code Compliance/Life Expectancy. The grounding electrode system and equipment grounding system meet the minimum requirements of the NEC.

Lighting. The lighting fixtures were installed in 1996, as indicated by NPS staff. The lighting fixture on the front porch is a wall-mounted glass globe type with a 60-watt incandescent lamp. The living room has a chandelier with incandescent lamps. The dining room also has a chandelier with incandescent lamps. The hallway has a ceiling light fixture with three 60-watt incandescent lamps. The cabinet with glass doors in the hallway has a recessed lighting fixture with one 60-watt incandescent lamp. The back porch has a ceiling-mounted porcelain socket lighting fixture with one 60-watt incandescent lamp. Each of the three bedrooms on the second floor each has a ceiling-mounted light fixture with one 60-watt incandescent lamp. The hallway on the second floor has a ceiling-mounted light fixture with one 60-watt incandescent lamp. The bathroom has a ceiling-mounted light fixture with three 60-watt incandescent lamps (Figure 244 through Figure 249, and refer to Figure 206).

FIGURE 244. Cassidy House back porch 106 lighting fixture. Photograph by Alvine, May 15, 2013.

FIGURE 245. Kitchen 104 lighting fixture. Photograph by Alvine, May 15, 2013.

FIGURE 246. West bedroom 204 lighting fixture. Photograph by Alvine, May 15, 2013.

FIGURE 247. Bathroom 203 lighting fixture and smoke detector. Photograph by Alvine, May 15, 2013.

FIGURE 248. Cassidy House southeast bedroom 205 lighting fixture. Photograph by Alvine, May 15, 2013.

FIGURE 249. Cassidy House front porch lighting fixture. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The lighting fixtures meet the minimum requirements of the NEC. The life expectancy of the lighting fixtures is twenty years from present time.

Devices (Switches and Receptacles). The electrical wiring devices are 20-amp rated, ivory in color, and have ivory colored plastic plates. The receptacles were installed in a layout to represent a typical late-1940s home. The receptacles receive little use in the building.

Code Compliance/Life Expectancy. The device layout would not be adequate for a modern day residence. However, for a museum the device layout is adequate. The devices meet minimum NEC requirements. The life expectancy of the devices is at least twenty years from present time.

Exit Lighting/Emergency Lighting. The building does not have exit lights or emergency battery backup lighting.

Fire Alarm/Intrusion Alarm System. The building has a Simplex Model 3001 combination fire alarm/intrusion alarm system, which was installed circa 1996–1997. This panel is no longer operational (Figure 250).

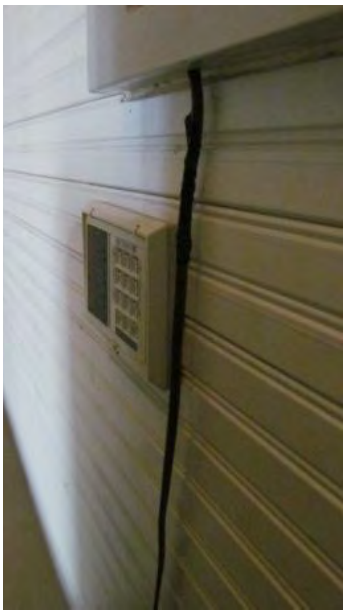


FIGURE 250. Cassidy House intrusion alarm inactive key pad located in back porch 106. Photograph by Alvine, May 15, 2013.

Stand-alone battery-powered smoke detectors are located in hall 103, at the top of the stairs, in the second floor hallway 201, and in bathroom 203. The building does not have a functional fire alarm system.

There are security contacts on the two exterior doors. There are security motion detectors located on the back porch and dining room. These devices are connected to the fire alarm/intrusion alarm system in the visitor center.

Communication System. There are no telephone or data outlets in the building.

Visitor Center

Exterior Evaluation

Description. The visitor center is a one-and-one-half story brick building. The former residence is an example of a side-gabled Craftsman-style bungalow (Figure 251). Craftsman-style buildings are typically defined by low-pitched gabled roofs with wide, unenclosed overhangs. Many houses of the side-gabled bungalow subtype are one-and-a-half-stories and contain a central shed or gable dormer.

FIGURE 251. A view of the visitor center from the north. Photograph by WJE, October 16, 2012.

The visitor center has an asphalt-shingle clad gable roof with gabled dormers on the north and south sides of the building. The existing asphalt shingles were installed in late 2011. The roof rafter tails are exposed and visible at the north and south roof eaves as well as the dormer eaves. The building is rectangular in plan with a square bay that extends on the west side, and an enclosed porch on the east side of the building.

A gable roof porch with brick columns is present at the center of the north elevation (Figure 252). The brick columns, which are capped by painted precast concrete, extend from the roof to grade. Brick and concrete railings are present on the east and west sides of the porch (Figure 253). The gable end of the porch roof is clad with plaster (Figure 254). There are three brackets at the roof-wall junction of the gable end. The brackets at the end of the roof are shallower than those at the roof peak. Three concrete steps lead to the porch, which has a concrete floor.

FIGURE 252. The north elevation of the visitor center. Photograph by WJE, October 15, 2012.

FIGURE 253. A view of the brick and concrete railing at the front porch. Photograph by WJE, October 16, 2012.

FIGURE 254. A view of the gable end of the front porch. Photograph by WJE, October 15, 2012.

A wood door with glass insets leads from the porch into the visitor center (Figure 255). The door is flanked by matching ten-light windows. A nine-light transom is located above the door and sidelights.

A gabled dormer is situated above the front porch (Figure 256). The stucco clad dormer contains two, six-over-one double-hung wood windows on the north facade. There are three brackets at the roof-wall junction of the gable end and the roof rafter ends are exposed. The front rafter ends are cut in a decorative matter.

FIGURE 255. View of the door leading from the north porch to the visitor center. Photograph by WJE, October 15, 2012.

FIGURE 256. A view of the north dormer. Photograph by WJE, October 15, 2012.

A set of three windows is located on either side of the porch on the north facade (Figure 257). The three window sets consist of a central five-over-one wood double-hung window flanked by two, narrower two-over-one wood double-hung windows. The windows sit on precast concrete sills with a soldier course of brick at the heads.

FIGURE 257. A view of the east side of the north elevation of the visitor center showing the side porch and three-window set adjacent to the north porch. Photograph by WJE, October 16, 2012.

The enclosed side porch is visible on the east side of the elevation (refer to Figure 257). The porch has a low-slope roof that slopes away from the main house. The porch is enclosed with single pane fixed windows, six of which are visible on the north elevation. Three windows are situated directly above the porch deck, and are approximately 2 feet tall by 3 feet wide. Three additional windows are located are situated above the lower windows and are approximately 8 feet tall by 3 feet wide.

The wood windows were installed as part of the 1997 work. For the porch, this work included removal of previously extant wood-framed screens as well as low brick masonry supports between the corner piers, and installation of the existing wood-framed window and door systems. The porch windows are out of alignment with the porch walls, floor, and roof; the porch structure had previously settled out of square, but the windows were installed plumb

and level, with tapered wood trim used to hide the resulting gaps.

A square bay that extends out on the west side of the visitor center is visible on the west end of the north facade. A three-over-one wood double-hung window is present on the north side of the bay. The window sits on a precast sill with a soldier course of brick at the head. A triangular knee brace is viable at the roof-wall intersection.

The side porch is visible at the north end of the east elevation (Figure 258). The enclosed porch has eight, single-pane fixed windows. Four windows are situated directly above the porch deck, and are approximately 2 feet tall by 3 feet wide. Four additional windows are situated above the lower windows and are approximately 8 feet tall by 3 feet wide. An unpainted, treated wood deck located directly south of the porch provides access to the building (Figure 259). A wood stair leads from the deck to the former driveway on the east side of the building and a ramp leads to the sidewalk south of the building (Figure 260). A painted railing composed of stock turned wood balusters set between newel posts is present on the deck and connected stair and ramp. Below the wooden deck and ramp, original concrete stairs are present that descend directly to grade from the porch door (Figure 261).

FIGURE 258. A partial view of the east elevation. Photograph by WJE, October 16, 2012.

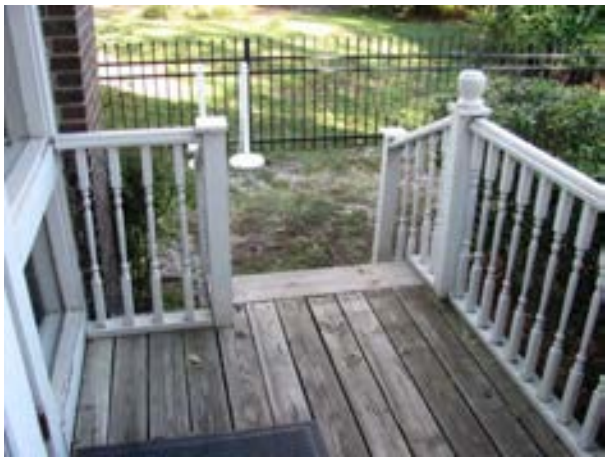


FIGURE 259. A view of the wood deck adjacent to the enclosed porch. Photograph by WJE, October 15, 2012.

FIGURE 260. A view of the wood stair at the deck on the east elevation of the visitor center. Photograph by WJE, October 15, 2012.

FIGURE 261. A view of the original concrete steps under the existing deck. Photograph by WJE, October 16, 2012.

A set of three windows is located above the deck and south of the porch. The three windows are similarly sized three-over-one wood double-hung units. The windows sit on precast concrete sills with a soldier course of brick at the heads.

The east gable end is clad in stucco with exposed woof trim (Figure 262). There are five, equally-spaced brackets at the roof-wall junction, with one in the center directly under the roof peak. A set of two windows is present at the center of the gable end. The two windows are twelve-over-one double-hung wood units. A window air-conditioning unit is present in the north window.

FIGURE 262. A view of the plastered gable end of the visitor center. Photograph by WJE, October 15, 2012.

The east enclosed porch is visible from the south elevation (Figure 263). A non-original multi-light door is present at the center of the south elevation of the porch and is flanked by two windows on each side (Figure 264). Two of the single-pane fixed windows are situated directly above the porch deck, and are approximately 2 feet tall by 3 feet wide. Two additional windows are situated above the lower windows and are approximately 8 feet tall by 3 feet wide. As previously noted, a wood deck with a staircase and ramp connects the porch to an adjacent sidewalk south of the porch.

FIGURE 263. A view of the south elevation of the visitor center. The enclosed porch can be seen on the far right. Photograph by WJE, October 15, 2012.

FIGURE 264. A view of the side porch and adjacent deck on the east elevation. Photograph by WJE, October 15, 2012.

A gabled dormer is present near the center of the main roof on the south elevation (Figure 265). The stucco clad dormer contains three nine-over-one double-hung wood windows centered on the south facade. There are three triangular knee braces at the roof-wall junction of the gable end and the roof rafter ends are exposed. The front rafter ends are cut in a decorative matter.

FIGURE 265. A view of the gabled dormer on the south elevation. Photograph by WJE, October 16, 2012.

Below the dormer, near the center of the south elevation, a portion of the building is clad in painted plywood. Based on archival documentation (Sanborn Map Company fire insurance maps), a projecting porch was likely present at this location during the period of significance. An enclosed porch/breakfast room was removed at this location as part of the 1997 work. A gridded trellis is mounted outboard of the plywood cladding (Figure 266). The plywood cladding was added in 1997 after removal of the original porch structure. (Although reconstruction of the porch was originally intended, this work was not implemented, perhaps due to budget limitations.) The trellis was added sometime after 1997. A NPS sign reading “Visitor Center” is attached near the top of the trellis.

FIGURE 266. A view of the south elevation of the visitor center. The enclosed porch can be seen on the far right. Photograph by WJE, October 15, 2012.

Directly east of the trellis, a three-over-one double-hung wood window is located in the masonry wall. The window sits on a precast sill with a soldier course of brick at the head. A set of two windows is located east of the single window. The three-over-one double-hung wood windows sit on a precast sill with a soldier course of brick at the head.

A window opening filled with glass block is present west of the wood trellis. The opening, which contains twenty-eight glass block units, has a precast sill and soldier course of brick at the head. At the far west end of the facade, at the projecting bay, is a three-over-one double-hung wood window. The window sits on a precast sill with a soldier course of brick at the head.

A gabled square bay extends from the main portion of the house at the south end of the west elevation (Figure 267). There are three triangular knee braces at the roof-wall junction of the gable end, which is clad with stucco. A set of two windows is present at the center of the bay. The three-over-one double-hung wood

windows sit on a continuous precast sill with a single soldier course of brick at the head.

FIGURE 267. A view of the west elevation of the visitor center. The projecting bay can be seen on the right. Photograph by WJE, October 15, 2012.

North of the square bay is a set of two windows. The three-over-one double-hung wood windows sit on a precast sill with a soldier course of brick at the head.

The west gable end of the main roof is clad in stucco with exposed woof trim. There are five, equally-spaced triangular knee braces at the roof-wall junction, with one in the center directly under the roof peak. A pair of eight-over-one double-hung wood windows is present at the center of the gable end (Figure 268).

FIGURE 268. A view of the second floor windows at the west elevation. Photograph by WJE, October 16, 2012.

Condition Assessment. The following notable conditions were observed at the exterior of the visitor center:

- The concrete parge coat at the brick masonry foundation has cracked in several locations (Figure 269). This cracking is likely related to differential movement of the brick masonry foundation, as discussed in more detail under Structural System Evaluation, below.
- Step cracking in brick masonry was observed above windows and doors as well as at various locations in the field of the exterior walls (Figure 270 through Figure 272). At the heads of window and door openings, the step cracking may be related to corrosion of embedded steel lintels. At other locations, the step cracking is related to deficient foundation conditions, as discussed in more detail under Structural System Evaluation, below.
- Other signs of uneven settlement were also observed, including loose brick units and severe displacement of masonry at several locations, including adjacent to the north entrance (Figure 273). The cracking, differential settlement, and displacement of masonry is related to deficient foundation conditions, discussed in more detail under Structural System Evaluation, below.
- Cracking of plaster at gable ends and dormers (Figure 274). This cracking may be related to differential foundation movement at the porch, as discussed in more detail under Structural System Evaluation, below.
- Cracking of precast concrete coping at north porch (Figure 275). This cracking is likely related to differential foundation movement at the porch, as discussed in more detail under Structural System Evaluation, below.

- Paint failure at wood windows and trim and at precast sills and rails throughout the building (Figure 276). This condition relates to normal weathering of the windows and other painted surfaces.
- Failure of glazing putty was observed at several wood windows (refer to Figure 276). This condition relates to normal weathering of the windows.
- The asphalt shingle roofing is relatively new and appears intact and watertight.

FIGURE 269. An instance of cracking at the cast concrete foundation. Photograph by WJE, October 16, 2012.

FIGURE 270. An example of stepped cracking at the northeast corner of the building. Photograph by WJE, October 16, 2012.

FIGURE 271. A view of stepped cracking on the field of an exterior wall. Photograph by WJE, October 16, 2012.

FIGURE 272. Cracking at the head of a window. Photograph by WJE, October 16, 2012.

FIGURE 273. A view of displaced brick adjacent to the door on the north elevation. Photograph by WJE, October 15, 2012.

FIGURE 274. A repaired crack in the plaster at a dormer. Photograph by WJE, October 16, 2012.

FIGURE 275. A crack in the precast concrete at the north porch. Photograph by WJE, October 15, 2012.

FIGURE 276. A view of a typical window showing paint and glazing putty failure. Photograph by WJE, October 15, 2012.

Interior Evaluation

The visitor center is a one-and-one-half story house with a brick masonry veneer and a gable roof with dormers.

Entry (Room 101). The present-day public entry was a screened porch on the east side of the house prior to the 1997 work. The wall dividing this space from the former living room (reception, room 100) is exterior brick, evidence that this was originally and exterior space.

Floor. The floor of the entry is concrete with a grey paint finish. The floor contains a crack across the center of the space, presumably due to settling over time (Figure 277). The floor is in fair condition.

FIGURE 277. Concrete slab floor of the entry, looking north. Photograph by BVH, October 16, 2012.

Walls. The walls of the entry are brick masonry veneer, matching the exterior of the building. There are two door openings, with the doors removed, between the entry and reception area that punctuates the west brick masonry wall (Figure 278). The northeast and southeast corners are formed by brick masonry clad piers. The north, east, and south walls are composed of large floor-to-ceiling wood-framed windows between the piers (Figure 279). The walls are in good condition.

FIGURE 278. The west wall of the entry. The door openings remain but the doors were removed as part of the 1997 work. Photograph by BVH, October 16, 2012.

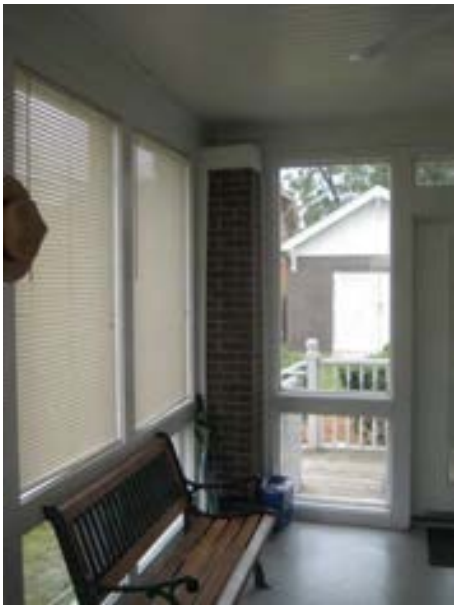


FIGURE 279. Corner brick pier at the southeast corner of the entry. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the entry is composed of 3/4-inch by 5-1/2-inch tongue-and-groove edge and center beadboard, painted white. The center of the ceiling contains a white ceiling fan (Figure 280). The ceiling was newly installed as part of the 1997 work. The ceiling is in good condition.

FIGURE 280. Tongue-and-groove ceiling with ceiling fan, looking south. Photograph by BVH, October 16, 2012.

Doors. The public entry door to the visitor center is located in this space. The door is centered on the south wall. The French door has 15 lights and is 3 feet 6 inches wide, of steel construction (Figure 281). The hardware consists of a mortise lock set and matching deadbolt above. The door and hardware were installed at the time of the 1997 work. The door contains three pin hinges. The hardware is in good condition.

FIGURE 281. Main entry door of the visitor center on the south wall of the space. Photograph by BVH, October 16, 2012.

Windows. This room was a screened porch, until the screens were replaced with fixed windows at the time of the 1997 work. The configuration of the windows are large double-glazed fixed assemblies with sills at 2 feet 8 inches above the floor, with smaller double glazed fixed windows below (Figure 282). The entry door is flanked with a window on each side. The east wall contains four of these window assemblies, and the north wall contains three. The frames are wood painted white. The windows are in good condition.

FIGURE 282. Fixed window assembly of the north wall of the entry. Photograph by BVH, October 16, 2012.

Reception (Room 102). The reception room is the largest room in the building and contains a fireplace on the east wall. A free-standing cashier counter was added at the time of the 1997 work. Reportedly, a partition in room 102 that previously separated this room into a small entrance hall and larger living room was removed during the 1997 work, resulting in a larger reception space.[60]

Floor. The floor of the reception room is stained hardwood with a 2-1/2-inch exposure. The floor is in good condition (Figure 283).

FIGURE 283. The hardwood floor of the reception area, looking east. Photograph by BVH, October 16, 2012.

Walls. The walls of the reception area are finished with gypsum board, painted a mossy green (Figure 284). The walls above the fireplace mantel are vertically oriented 12-inch by 8-inch tongue-and-groove boards with a V groove at the vertical joints, painted the same color as the walls (Figure 285). The wall base is 3/4-inch by 7-1/2-inch wood with an eased edge, and quarter-round at the floor, painted white (Figure 286). The walls are in good condition.

FIGURE 284. South and east walls of the reception area. Photograph by BVH, October 16, 2012.

60. Removal of the wall was verbally described by former Director of the Clinton Birthplace Foundation, Martha Berryman, to Al O'Bright, Historical Architect, National Park Service, on July 14, 2010.

FIGURE 285. The vertical beadboard assembly above the mantel on the east wall. Photograph by BVH, October 16, 2012.

FIGURE 286. Wall base and base block at door opening on the west wall. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the reception area is finished with gypsum board, painted white. The ceiling has a cornice molding painted white (Figure 287). In the center of the room hangs a four-light chandelier with glass globes open at the bottom (Figure 288). Two pendants hang over the cashier counter, and one matching pendant is approximately centered along the north wall (Figure 289). The ceiling is in good condition.

FIGURE 287. Ceiling of the reception space with cornice, looking east. Photograph by BVH, October 16, 2012.

FIGURE 288. Chandelier in the center of the space, looking south. Photograph by BVH, October 16, 2012.

FIGURE 289. Pendants over the cashier counter along the south wall. Photograph by BVH, October 16, 2012.

Doors. The main front door of the house when it was a residence is located in this room, facing north. The door is stile-and-rail construction, and has fifteen beveled-glass lights. The assembly contains two sidelights, each with ten beveled-glass lights, and a transom of nine lights, not beveled glass. The doors have 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, and base blocks, painted white (Figure 290).

FIGURE 290. Front door assembly with sidelights on the north wall. Photograph by BVH, October 16, 2012.

The door hardware consists of a glass knob with a brass hexagonal escutcheon and brass deadbolt above (Figure 291). The door assembly is in good condition.

FIGURE 291. Hardware assembly of the door. Photograph by BVH, October 16, 2012.

The room contains five other door openings, but the doors were removed as part of the 1997 work.

Windows. A triple window is located on the north side of the room (Figure 292). The double-hung assembly contains a five-over-one wide window in the center flanked by two, two-over-one narrow windows on the sides. The windows are original to the house and have been fixed shut. Weight cords have been cut and hang loose at the jambs. The window opening has 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, painted white. The windows are in good condition.

FIGURE 292. Triple window assembly on the north side of the room. Photograph by BVH, October 16, 2012.

Fireplace. The fireplace in this space is of masonry construction, with a masonry hearth set level into the floor, and an articulated brick mantel (Figure 293). The opening contains a decorated metal hood. The fireplace is not operable, as the chimney has been removed above the roof. The fireplace is in good condition.

FIGURE 293. Fireplace on the east wall of reception. Photograph by BVH, October 16, 2012.

Counter. A pine stained freestanding counter/shelf assembly was added to the south wall of the room in 2011. The counter is also stained wood. The counter is in an L shape with a truncated corner, 7 feet by 5 feet. The sides are finished with 3/4-inch by 3-1/2-inch vertical tongue-and-groove pine boards, with a light stain. The cabinet contains a toe kick, and is the location of the cash register for the bookstore (Figure 294). The counter is in good condition.

FIGURE 294. Cashier counter on the south wall of reception. Photograph by BVH, October 16, 2012.

Exhibit (Room 103). The exhibit space is located on the north side of the building and is accessed from the reception space to the east. As part of the 1997 work, partition walls defining a closet at the southeast corner of the room were removed, the door opening to the reception room (102) was enlarged, and an original door opening at the south wall to the office (108) was closed.

Floor. The floor of the exhibit space is stained hardwood with a 2-1/2-inch exposure (Figure 295). The door opening between this room and reception was widened at the time of the 1997 work, and the expanded threshold was not patched to match the rest of the floor. The base plate of the wall is exposed on the south end (Figure 296). The floor is otherwise in good condition.

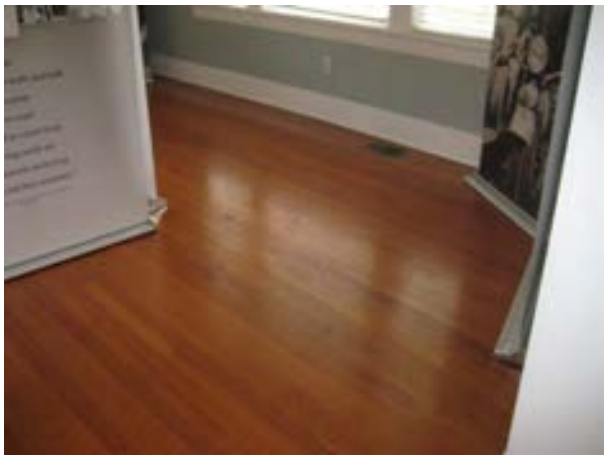


FIGURE 295. Hardwood floor of the exhibit room, looking north. Photograph by BVH, October 16, 2012.

FIGURE 296. Patch denotes where opening was widened, looking west. Photograph by BVH, October 16, 2012.

Walls. The walls of the exhibit space are finished with gypsum board, painted a mossy blue (Figure 297). Wall base is 3/4-inch by 7-1/2-inch wood with an eased edge, and quarter-round at the floor, painted white. The walls are in good condition.

FIGURE 297. South wall of the exhibit space. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the exhibit space is composed of 3/4-inch by 5-1/2-inch half-lap flat wood stock, painted white (Figure 298). Track lighting with directional cans is centered in the middle of the ceiling (Figure 299). The ceiling contains a cornice molding. The ceiling is in good condition.

FIGURE 298. Tongue-and-groove ceiling looking south. Photograph by BVH, October 16, 2012.

FIGURE 299. Track lighting in the exhibit space, looking west. Photograph by BVH, October 16, 2012.

Doors. This room contains two door openings, the widened one described as part of the reception room, and a second opening at the southeast corner of the room, accessing the corridor. The door has been removed as part of the 1997 work. The 3/4-inch by 5-1/2-inch trim contains rounded edges and a foot block at the bottom (Figure 301).

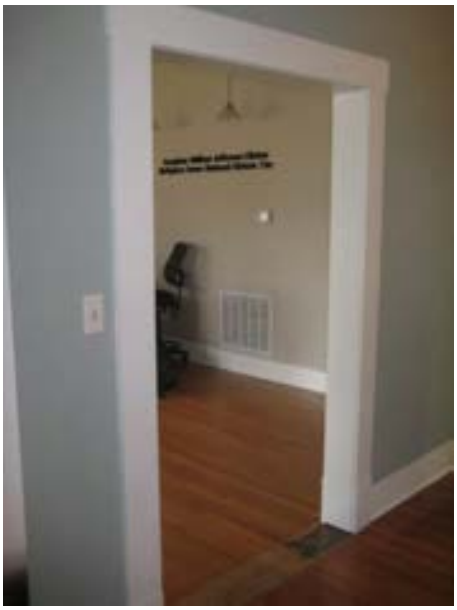


FIGURE 300. East wall door opening between the reception and exhibit spaces. The door was removed and the opening and was widened as part of the 1997 work. Photograph by BVH, October 16, 2012.

Windows. A triple window is located on the north side of the room. The double-hung assembly contains a five-over-one wide window in the center flanked by a two-over-one narrow window at each side (Figure 301). The windows are original to the house and have been fixed shut. Weight cords have been cut and hang loose out of the jambs. The windows contain 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, painted white. The windows are in good condition.

FIGURE 301. Triple window assembly on the north side of the room. Photograph by BVH, October 16, 2012.

Fireplace. The fireplace in this space is of masonry construction, with a masonry hearth set level into the floor, and an articulated brick mantel. The firebox is open (Figure 302). The fireplace is not operable as the chimney has been removed above the roof. The fireplace is in good condition.

FIGURE 302. Fireplace on the south wall of the exhibit space. Photograph by BVH, October 16, 2012.

Bookstore (Room 104). The bookstore is located to the south of reception, accessed through a wide door opening that once contained double doors, evidenced by the door pin location in the center of the opening. These doors were removed as part of the 1997 work.

Floor. The floor of the bookstore is stained hardwood with a 2-1/2-inch exposure, continuous from the reception area (Figure 303). Centered in the opening between this space and reception is an infilled block denoting where the door pin at the center meeting point of the doors was once located; the hardware was removed as were the doors as part of the 1997 work (Figure 304). The floor is in good condition.

FIGURE 303. Hardwood floor in the bookroom, looking south. Photograph by BVH, October 16, 2012.

FIGURE 304. Infilled door pin location. Photograph by BVH, October 16, 2012.

Walls. The walls of the bookstore are finished with gypsum board, painted a light tan. The wall base is 3/4-inch by 7-1/2-inch wood with an eased edge, and quarter-round at the floor, painted white (Figure 305). The walls are in good condition.

FIGURE 305. Gypsum board walls of the bookstore. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the bookstore is finished with gypsum board, painted white. The ceiling has a cornice molding painted white. In the center of the room is track lighting with four directional cans (Figure 306). The ceiling is in good condition.

FIGURE 306. Gypsum board ceiling of the bookstore with track lighting, looking south. Photograph by BVH, October 16, 2012.

Doors. The bookstore contains one, two-panel stile-and-rail construction door, accessing the office of the superintendent to the west. The 1-inch by 5-1/2-inch trim contains rounded edges and a foot block at the bottom. The hardware of the door consists of cut glass doorknobs with hexagonal escutcheon plates and skeleton key locks (Figure 307). This is not the original hardware for the door, as there is the ghost of a larger escutcheon plate around the existing one. The door is in good condition.

FIGURE 307. Door hardware of the west door in the bookstore. Photograph by BVH, October 16, 2012.

Windows. On the east side of the room is a triple window. Each of the three double-hung windows is a three-over-one window (Figure 308). On the south side of the room is a similar double window. Each of the two double-hung windows is a three-over-one window. The windows are original to the house and have been fixed shut. Weight cords have been cut and hang loose out of the jambs (Figure 309). The windows have 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, painted white. The windows are in good condition.

FIGURE 308. Triple window in the east side of the bookstore. Photograph by BVH, October 16, 2012.

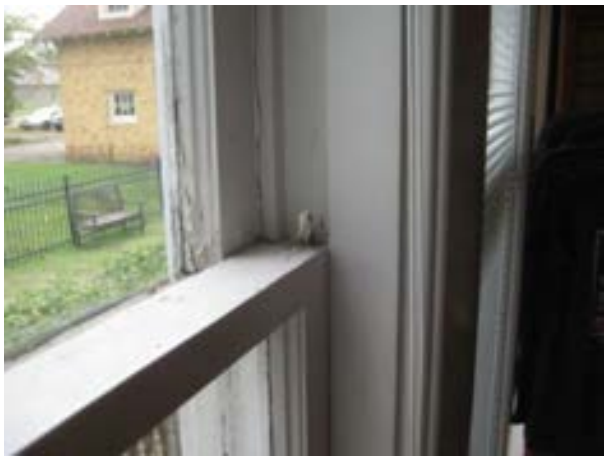


FIGURE 309. Cut weight cord of one of the east windows. Photograph by BVH, October 16, 2012.

Corridor (Room 105). The configuration of the corridor was modified at the time of the 1997 work.

Floor. The floor of the corridor is stained hardwood with a 2-1/2-inch exposure overlaid with tan-colored carpeting, and metal transition strips at all door thresholds (Figure 310). The floor is in good condition.

FIGURE 310. Carpet in the corridor with metal transition strips, looking east. Photograph by BVH, October 16, 2012.

Walls. The walls of the corridor are finished with gypsum board, painted a light tan. The gypsum board has been installed over the original wallpapered wood plank wall finish as part of the 1997 work, evidenced by the shallow depth of the wall base and door trim relative to the new finished wall surface (Figure 311). The wall base is 3/4-inch by 7-1/2-inch wood with an eased edge, and quarter-round at the floor, painted white (Figure 312). The walls are in good condition.

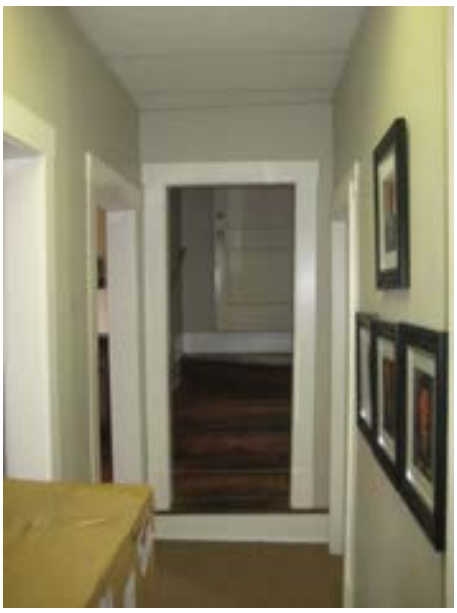


FIGURE 311. Gypsum board installed over the original plaster, making the profile of the trim shallow, looking east. Photograph by BVH, October 16, 2012.

FIGURE 312. Wall base in the northeast corner of the corridor. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the corridor is a 2-foot by 4-foot suspended metal grid with lay-in acoustic tile and one troffer fluorescent light in the center of the space (Figure 313). The ceiling is in good condition.

FIGURE 313. Suspended ceiling in the corridor looking west. Photograph by BVH, October 16, 2012.

Doors. Corridor doors are described in their subsequent room descriptions. The door jambs accessing office 106 and office 108 have been built up to accommodate doors that are smaller than the originals, as part of the 1997 work (Figure 314).

Windows. The corridor does not contain any windows.

FIGURE 314. New door jamb and trim inserted into original south wall door opening. Photograph by BVH, October 16, 2012.

Superintendent Office (Room 106). This is the office of the superintendent of the site. The room contains a storage closet under the stairs to the second floor. Prior to the 1997 work, this room was the kitchen of the house. All of the kitchen equipment and fixtures were removed as part of the 1997 work, as well as the partition walls for a mechanical closet formerly located at the northwest corner of the room.

Floor. The floor of the office is tan-colored carpeting with metal transition strips at all door thresholds (Figure 315). The carpeting was installed in 1997. The floor is in good condition.

FIGURE 315. Carpeting in the superintendent office (room 106) looking south. Photograph by BVH, October 16, 2012.

Walls. The south wall of the room was added as part of the 1997 work. This was an opening to a porch on the south side of the house that was removed at that time. The infill wall is finished with gypsum board, painted a light tan (Figure 316). The west and east walls contain wood veneer paneling up to a level of 8 feet above the floor, with gypsum board above to the ceiling (Figure 317). The north wall is gypsum board.

The walls of the storage closet are 3/4-inch by 5-1/2-inch horizontal flat stock wood, painted white (Figure 318).

The wall base of the south wall is quarter-round painted white. The rest of the wall base is 3/4-inch by 7-1/2-inch wood with an eased edge, and quarter-round at the floor, painted white. The walls are in good condition.

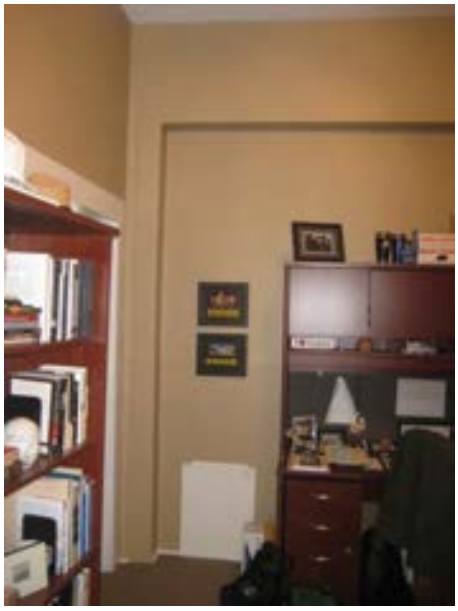


FIGURE 316. The inset portion of the wall is new construction, where the breakfast room once protruded from the south end of the house. Photograph by BVH, October 16, 2012.

FIGURE 317. West wall of the superintendent office with veneer paneling to a level of 8 feet. The north wall is at right with no paneling. Photograph by BVH, October 16, 2012.

FIGURE 318. East wall of the storage closet within the superintendent office. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the superintendent office is finished with gypsum board, painted white. The ceiling has a cornice molding painted white. In the center of the room is a ceiling fan with five lights (Figure 319). The ceiling is in good condition.

FIGURE 319. Ceiling fan in the superintendent office. Photograph by BVH, October 16, 2012.

Doors. The superintendent office contains two doors, both two-panel stile-and-rail construction, accessing the bookstore to the east and the corridor to the north. The 3/4-inch by 5-1/2-inch trim contains rounded edges and a foot block at the bottom. The hardware of the bookstore door consists of nickel-plated door knobs with vertical escutcheon plates and skeleton key locks (Figure 320).

The hardware of the door accessing the corridor consists of a polished brass mortised lockset and matching brass deadbolt above, dating from the time of the 1997 work (Figure 321). The hardware is in good condition.

The door jamb has been built up to accommodate a door that is smaller than the original, as part of the 1997 work (Figure 322). The doors are in good condition.

FIGURE 320. Bookstore door from the superintendent office on the east wall. Photograph by BVH, October 16, 2012.

FIGURE 321. Corridor door on the north wall of the superintendent office. Photograph by BVH, October 16, 2012.

FIGURE 322. Built-up door frame to accommodate a smaller door. Photograph by BVH, October 16, 2012.

Windows. The office contains one small window located in the storage closet under the stairs. The double-hung window assembly contains a three-over-one window. The window is original to the house and has been fixed shut. Weight cords have been cut and hang loose out of the jambs (Figure 323). The window has 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, painted white.

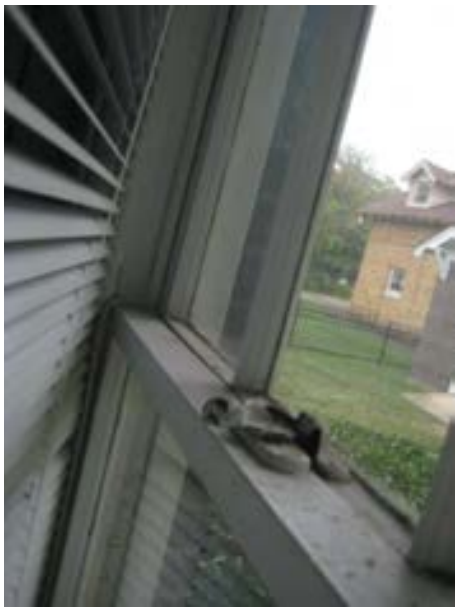


FIGURE 323. Detail of the window in the south wall of the closet of the superintendent office, showing the severed weight cord hanging. Photograph by BVH, October 16, 2012.

Storage (Room 107). This room was originally the bathroom of the house and was converted to storage as part of the 1997 work. Door openings leading into this room were reconfigured as part of the work, the original angled partition wall at the corridor was removed, and a new partition wall was built, enlarging the corridor and providing a direct connection from the corridor to the office.

Floor. The flooring of the storage room is rolled vinyl flooring with a square stone look finish. The flooring was added as part of the 1997 work (Figure 324). The floor is in good condition.

FIGURE 324. Vinyl flooring in storage (room 107) looking south. Photograph by BVH, October 16, 2012.

Walls. The walls of the storage room are finished with gypsum board, painted white. The wall base is 3/4-inch by 2-1/2-inch wood with an eased edge, and quarter-round at the floor, painted white (Figure 325). The walls are in good condition.

FIGURE 325. West wall of storage (room 107) with shelving. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the storage room is finished with gypsum board, painted white. A single bare bulb is the only lighting in the room, centered in the ceiling (Figure 326). The ceiling is in good condition.

FIGURE 326. Ceiling in storage (room 107) with bare bulb light fixture, looking south. Photograph by BVH, October 16, 2012.

Doors. The storage room contains one door, of two-panel stile-and-rail construction, accessing the corridor. The door frame has 3/4-inch by 2-1/2-inch trim. The hardware of the storage room door consists of nickel-plated door knobs with vertical escutcheon plates and skeleton key locks (Figure 327). A full length mirror is affixed to the corridor side of this door. The door is in good condition.

FIGURE 327. Door on the north wall of storage (room 107). Photograph by BVH, October 16, 2012.

Windows. The storage room has one window, located on the south side of the building. The window is composed of 8 inches square glass block, four blocks wide and six blocks tall, making the window opening 2 feet 8 inches by 4 feet 0 inches. The window has 3/4-inch by 2-1/2-inch wood trim painted white (Figure 332). Although not original to the house, the glass block window infill predates the 1997 work. The window is in good condition.

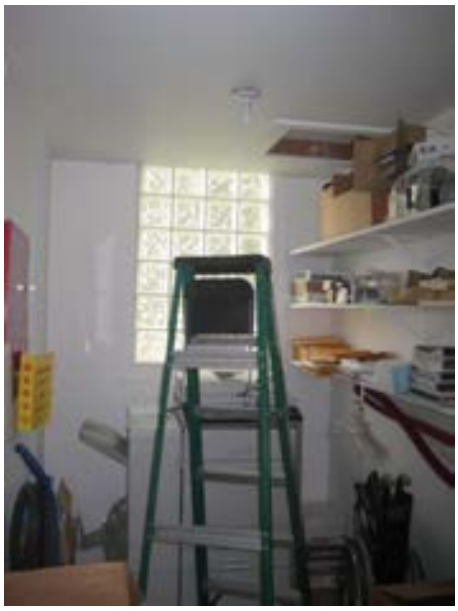


FIGURE 328. Glass block window in storage (room 107) on the south wall. Photograph by BVH, October 16, 2012.

Office (Room 108). This room was originally a bedroom. Partition walls defining a closet located at the southeast corner of the room were removed as part of the 1997 work. Two original door openings were closed and a new door opening was created at the northeast corner of the room.

Floor. The north half of the office floor is short pile carpet over stained hardwood with a 2-1/2-inch exposure (Figure 336). The hardwood is exposed on the south half of the room (Figure 330). The floor is in good condition.

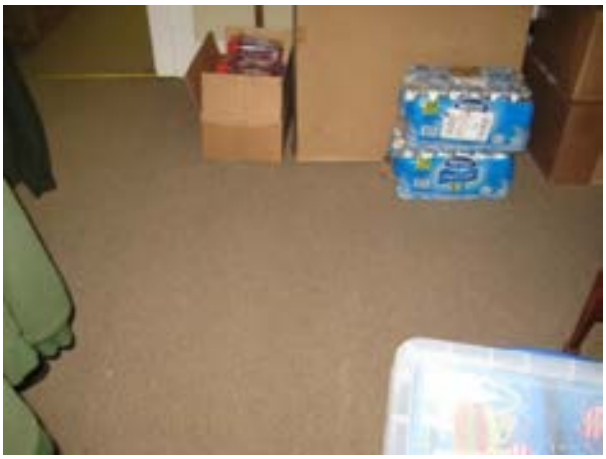


FIGURE 329. Carpet flooring of the north half of the floor of the office (room 108), looking east. Photograph by BVH, October 16, 2012.

FIGURE 330. Hardwood flooring of the south half of the floor of the office (room 108), looking southeast. Photograph by BVH, October 16, 2012.

Walls. The walls of the office are finished with gypsum board, painted a light tan. Wall base is 3/4-inch by 7-1/2-inch wood with an eased edge, and quarter-round at the floor and as a cornice around the ceiling, painted white (Figure 331). The walls are in good condition.

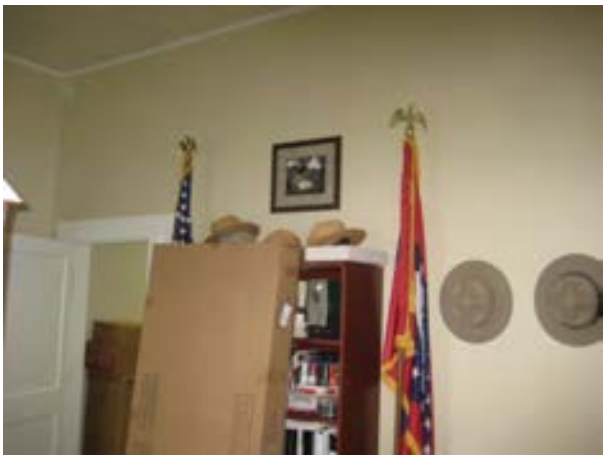


FIGURE 331. Wall finish of the office (room 108), looking north-east. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the office is covered with 12-inch by 12-inch acoustical ceiling tile, directly adhered to the ceiling substrate in a running bond pattern. This ceiling finish likely predates the 1997 work. A five lamp chandelier hangs in the center of the room (Figure 332). The ceiling is in good condition.

FIGURE 332. Chandelier and ceiling tile assembly, looking northwest. Photograph by BVH, October 16, 2012.

Doors. The office contains one door, of two panel stile and rail type construction, accessing the corridor to the east. The 1-inch by 5-1/2-inch trim contains rounded edges and a foot block at the bottom. The door is in good condition. The hardware of the door consists of a polished brass mortised lockset and matching brass deadbolt above, dating from the time of the 1997 work (Figure 333). The hardware is in good condition.

The door jamb has been built up to accommodate a door that is smaller than the original, as part of the 1997 work (Figure 334).

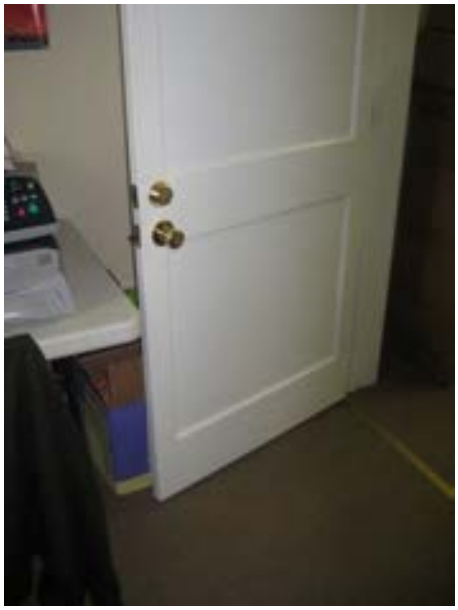


FIGURE 333. Panel door to the corridor with brass hardware, looking northeast. Photograph by BVH, October 16, 2012.

FIGURE 334. Double door frame, looking northeast. Photograph by BVH, October 16, 2012.

Windows. The office contains four windows, one on the north wall, two on the west, and one on the south. The double-hung windows have three-over-one configurations (Figure 335). The windows are original to the house and have been fixed shut. Weight cords have been cut and hang loose out of the jambs. The windows have 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, painted white. The windows are in good condition.

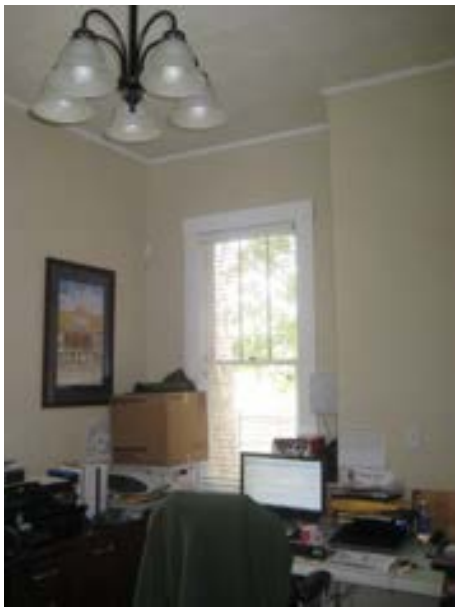


FIGURE 335. North window. Photograph by BVH, October 16, 2012.

Stairs. The stair assembly is located roughly in the center of the building. The door to the first floor corridor has been removed, and the stairs are open to the corridor (Figure 336). The first six risers are open to the corridor. The fifth riser is angled at forty-five degrees, and the door to the upper floor rests upon the sixth riser.

Risers are approximately 8 inches tall and treads are approximately 9-1/2 inches deep. The treads and risers are stained wood, and all other parts of the assembly are painted white (Figure 337). The wood base, stringer trim, and wall stringer trim are original. Large square newel posts are located at the top of the stairs and at the northwest corner of the balustrade surrounding the stairwell on the second floor. The railing is square wood stock with a chamfered edge, and the spindles are square 1-inch by 1-inch wood stock (Figure 338). A secondary rail has been added on the east and west side walls of the stairs and is not original (Figure 339). The stairs are in fair condition.

FIGURE 336. Door opening at the east end of the main floor corridor, open to the stairs. Photograph by BVH, October 16, 2012.

FIGURE 337. Stairs looking south. Photograph by BVH, October 16, 2012.

FIGURE 338. Railing and newel post looking east. Photograph by BVH, October 16, 2012.

FIGURE 339. Note the secondary handrail on the east wall, added later. Photograph by BVH, October 16, 2012.

Storage (Room 201). This storage space is located in the center of the second floor attic space. The room is open to the staircase from the main floor.

Floor. The floor of this storage space is stained hardwood with a 2-1/2-inch exposure (Figure 340). The floor is in good condition.

FIGURE 340. Hardwood flooring of storage (room 201), looking north. Photograph by BVH, October 16, 2012.

Walls. The walls of the room are finished with wood veneer paneling, including the knee walls and gable walls (Figure 341). The walls show signs of wear and are in fair condition.

FIGURE 341. Wood veneer paneling, looking north. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the storage room is finished with plaster, painted white. A single bare bulb is the only lighting in the room, centered in the ceiling (Figure 342). The ceiling is in good condition.

FIGURE 342. White painted plaster ceiling with bare bulb light fixture, looking south. Photograph by BVH, October 16, 2012.

Doors. This space contains three doors. The first is located at the top of the intermediate stair landing. This door is of two-panel stile-and-rail construction (Figure 343). The 3/4-inch by 5-1/2-inch door trim has rounded edges. The hardware consists of a polished brass mortised lockset and matching brass deadbolt above. The lock dates from the time of the 1997 work (Figure 344). The door has three pin hinges covered with several coats of paint, which are original to the door. The hardware is in good condition. The door is in good condition.

The second door is located at the east wall and provides access to east storage (room 202); it is described below as part of that room.

The third door is located at the west wall and provides access to west storage (room 203); it is described below as part of that room.

FIGURE 343. The panel door located at the intermediate landing of the stairs, looking north. Photograph by BVH, October 16, 2012.

FIGURE 344. Door hardware. Photograph by BVH, October 16, 2012.

Windows. The south end of the room has a dormer with three, nine-over-one double-hung windows (Figure 345). The windows are original to the house and have been fixed shut. Weight cords have been cut and hang loose out of the jambs (Figure 346). The windows have 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, painted white.

The north end of the room has a dormer with two, six-over-one double-hung windows. The windows are original to the house. The east window has been fixed shut, and the west window contains an air conditioning unit (Figure 347). Weight cords have been cut and hang loose out of the jambs. The windows have 3/4-inch by 5-1/2-inch wood straight stock trim with an eased edge, painted white. The windows are in good condition.

FIGURE 345. There are nine-over-one windows on the south wall of storage 201. Photograph by BVH, October 16, 2012.

FIGURE 346. Detail of the south windows showing the cut weight cords. WJE, 2012

FIGURE 347. A north window with air conditioning unit. Photograph by BVH, October 16, 2012.

East Storage (Room 202). This storage space is located in the attic of the building and is east of the central storage room (room 201).

Floor. The floor of east storage (room 202) is of 3/4-inch by 5-1/2-inch yellow pine tongue-and-groove, and is face nailed, with no finish (Figure 348). This floor is 4 inches below the floor level of storage (room 201). The floor is in good condition.

FIGURE 348. Face nailed softwood tongue-and-groove flooring of east storage (room 202), facing east. Photograph by BVH, October 16, 2012.

Walls. The walls are covered with rigid extruded polystyrene insulation. Seams are open and several pieces have become loose, with some that have fallen away from the walls (Figure 349). The walls do not contain a base. If the polystyrene insulation meets Section 2603.3 of the International Building Code, with a flame spread index of not more than 75 and a smoke developed index of not more than 450, it may be left in place and exposed. If these limits are exceeded, the polystyrene must be covered or removed. The walls are in fair condition.

FIGURE 349. Walls of rigid insulation, with missing sections and rough seams, facing east. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling is covered with rigid extruded polystyrene insulation. Seams are open and several pieces have become loose. If the polystyrene insulation meets Section 2603.3 of the International Building Code, with a flame spread index of not more than 75 and a smoke developed index of not more than 450, it may be left in place and exposed. If these limits are exceeded, the polystyrene must be covered or removed. The ceiling contains two bare bulb fixtures (Figure 350). The ceiling is in fair condition.

FIGURE 350. Ceiling finished with rigid insulation, with two bare bulbs for lighting, facing east. Photograph by BVH, October 16, 2012.

Doors. This space contains one door located at the west end of the room accessing storage (room 201). This door is of three raised panel stile-and-rail construction. The lowest panel has been removed and is in filled with a metal grille for air circulation (Figure 351). The door has stained flat stock wood trim (Figure 352). The hardware consists of a polished brass knob with a skeleton key lock below. The door contains three pin hinges covered with several coats of paint. The hinges are original to the door. The door and hardware are in fair condition.

FIGURE 351. Three panel door with bottom panel replaced with air circulation grille, facing west. Photograph by BVH, October 16, 2012.

FIGURE 352. Flat stock wood trim surrounding the door, stained, facing west. Photograph by BVH, October 16, 2012.

Windows. The east end of the room is the gable end of the house and has two, twelve-over-one double-hung windows. The windows are original to the house. The wood of the window sashes and frame is unfinished. Weight cords have been cut and hang loose out of the jambs. The windows have no trim. The north window contains an air conditioning unit (Figure 353). The windows are in fair condition.

FIGURE 353. Two windows on the east wall, with an insert air conditioner. Photograph by BVH, October 16, 2012.

West Storage (Room 203). This storage space is located in the attic of the building and is west of storage (room 201). Between west storage (room 203) and storage (room 201) is a small lavatory containing a functioning wall-hung sink (Figure 354). The lavatory space is open to the west storage room through a door opening with no door.

FIGURE 354. Wall hung lavatory in storage (room 203), facing south. Photograph by BVH, October 16, 2012.

Floor. The floor throughout the lavatory and storage space is 3/4-inch by 5-1/2-inch yellow pine tongue-and-groove, face nailed and unfinished (Figure 355). The south end of the floor is plywood with no finish (Figure 356). This floor is 4 inches below the floor level of storage (room 201), as the size of the second floor joists varies, as discussed further under Structural System Evaluation, below. The floor also steps up along the west side under the windows due to similar variation in the structural framing. The floor is in fair condition.

FIGURE 355. Tongue-and-groove flooring, facing west. Photograph by BVH, October 16, 2012.

FIGURE 356. Plywood floor, facing south in room 203. Photograph by BVH, October 16, 2012.

Walls. The walls of the lavatory space are 3/4-inch by 5-1/2-inch half-lap horizontal yellow pine with no finish (Figure 357). The walls of the rest of the space are covered with rigid extruded polystyrene insulation. Seams are open and several pieces have become loose, with some that have fallen away from the walls (Figure 358). If the polystyrene insulation meets Section 2603.3 of the International Building Code, with a flame spread index of not more than 75 and a smoke developed index of not more than 450, it may be left in place and exposed. If these limits are exceeded, the polystyrene must be covered or removed. The walls do not contain a base. The walls are in fair condition.

FIGURE 357. Horizontal half-lap wall boards, facing west. Photograph by BVH, October 16, 2012.

FIGURE 358. Walls of rigid insulation, with open seams, facing south. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling is covered with rigid extruded polystyrene insulation. Seams are open and several pieces have become loose. If the polystyrene insulation meets Section 2603.3 of the International Building Code, with a flame spread index of not more than 75 and a smoke developed index of not more than 450, it may be

left in place and exposed. If these limits are exceeded, the polystyrene must be covered or removed. The ceiling contains two bare bulb fixtures (Figure 359). The ceiling is in fair condition.

FIGURE 359. Ceiling with rigid insulation and bare bulb light fixtures, facing west. Photograph by BVH, October 16, 2012.

Doors. This space contains one door, located at the east end of the room accessing storage (room 201). This door is of four raised panel stile-and-rail construction. The door does not have trim. The hardware consists of a polished brass knob with a skeleton key lock below (Figure 360). The door contains three pin hinges that are covered with several coats of paint and are original to the door. The door and hardware are in fair condition.

FIGURE 360. Four panel door in west storage (room 203, facing east. BVH, 2012

Windows. The west end of the room is the gable end of the house with two 8-over-1 double-hung windows. The windows are original to the house. The wood is bare, with no finish (Figure 361). Weight cords have been cut and hang loose out of the jambs. The windows have no trim. The south window contains a window air conditioning unit. The windows are in fair condition.

FIGURE 361. Two windows on the west wall, with an insert air conditioner. BVH, 2012.

Structural System Evaluation

The structural system of the visitor center was observed visually from available points of access, such as the crawl space opening at the south end of the house, the drop ceiling at the first floor hallway and storage closet, and openings in the rigid insulation board in the unfinished area of the second floor. No inspection openings were made through architectural finishes. Based on the relatively small size of the structure, the regularity of the structural plan, and the typical conditions observed at visually accessible locations, inferences have been made about the portions of the structure that could not be observed directly. All wood framing profile dimensions given are nominal unless stated otherwise.

Foundation. The visitor center is supported on a brick masonry foundation. The house plan dimensions are approximately 36 feet in the north-south direction by 54 feet in the east-west direction. An enclosed porch is located at the north end of the east elevation, and extends approximately 12 feet 5 inches to the east and 17 feet 9 inches north to south. The 3-wythe brick foundation wall of the house extends above grade approximately eight brick courses. The masonry is covered with a cementitious parging from grade to a height of two to six courses. It is unknown how deep the existing foundation extends below grade (Figure 362).

FIGURE 362. View of the interior face of the 3-wythe brick masonry foundation wall from the crawl space below the house, view looking west. Photograph by WJE, October 17, 2012.

A crawl space exists below the house, which was accessed from an opening at the south elevation. The perimeter foundation wall is supplemented by brick piers along the east-west centerline of the building (Figure 363). The size and spacing of the piers is undetermined, as the piers were mostly blocked from view by HVAC ductwork. However, this is the support location for the interior bearing wall of the house. Additional brick piers were observed at the southern half of the crawl space, at approximately the midspan of the joists in the southern half of the building (Figure 364). These piers vary in size from approximately 16 by 8 inches to 16 by 16 inches. These piers were located at irregular intervals, and each of the piers appeared to support a single joist at a location where a sister joist repair has been implemented. It is believed that these piers were added at the time of the splice repairs; however, the timeframe of these repairs is unknown. The north half of the crawl space was not visible from the crawl space opening due to the presence of ductwork along the centerline of the building.

FIGURE 363. Brick masonry piers were partially visible behind HVAC ductwork at the centerline of the house, and supplemental masonry piers were observed supporting spliced joists at midspan. Additionally, concrete footings and 4 by 4 timber framing were later added to provide supplemental support to the first floor joists, view looking north. Photograph by WJE, October 17, 2012.

FIGURE 364. Additional masonry foundation piers were observed supporting the midspan of select first floor joists, view looking northeast. Photograph by WJE, October 17, 2012.

Additionally, contemporary concrete footings at approximately 4 feet on center were observed between the centerline of the building and the southern brick masonry piers. These footings, which may have been installed as a part of the 1997 work, support 4 by 4 posts and a north-south oriented 4 by 4 beam that provides supplemental support to the first floor joists (refer to Figure 363).

First Floor. The first floor framing was viewed from the same crawl space opening at the south elevation of the house. The first floor joists span from north to south between timber beams at the north and south exterior walls and the centerline of the building. The beams, which are 8 inches in depth, are supported on the masonry foundation wall and on the piers at the centerline of the house. There was no accessible location to determine the width of the beams. The floor joists are 1-3/4 inch by 10-1/2 inch (actual dimensions) spaced at 24 inches on center with diagonal bridging at midspan. Each joist is notched such that the top 4 inches bear on a 2 by 4 ledger nailed to the perimeter beam and aligned flush with the bottom of the beam (Figure 365). A similar ledger could be seen at the center beam, therefore, a similar notched detail for joist bearing is assumed at that location.

FIGURE 365. Typical first floor joists at 24 inches on center, notched over ledger at perimeter beam, which is in turn supported on a 3-wythe masonry foundation wall, view looking southwest. Photograph by WJE, October 17, 2012.

A number of joists at the visually accessible south end of the crawl space were noted to have previous retrofits, consisting of 2 by 8 sister joists that were toe-nailed to the perimeter beam (Figure 366). It is assumed that these retrofits were implemented during the 1997 work.

FIGURE 366. 2 by 8 sister joist retrofits observed at the south end of first floor joists, toenailed to the perimeter ledger beam, view looking east. Photograph by WJE, October 17, 2012.

The first floor walls are covered by non-original drywall finishes on the interior, except at one area above a non-original suspended ceiling in the hallway and storage closet, where the configuration of original interior partition walls could be viewed. At these locations, the wall framing was covered by wood sheathing (Figure 367). The ceiling was also sheathed at this location so the second floor framing could not be viewed from below. The first floor ceiling was measured to be 11 feet above the finished floor.

FIGURE 367. Wood sheathing at interior partition walls, viewed above the suspended ceiling of the first floor corridor, view looking west. Photograph by WJE, October 17, 2012.

The exterior walls of the first floor are also constructed of wood framing, likely conventional 2 by 4 stud wall construction. It is assumed that wood planking is present on the interior face of these walls, similar to the planking seen at interior partition walls. The exterior wall construction was reviewed at one inspection point near the front door on the north elevation. At this location, several loose brick units were removed to reveal the wall construction. The exterior brick veneer is a single wythe, laterally anchored to the wood wall construction with corrugated ties (Figure 368 and Figure 369). The exterior face of the stud wall is clad with solid wood plank sheathing.

FIGURE 368. Location of loose bricks at north elevation where an inspection opening was made to view the condition behind the brick veneer, view looking southeast. Photograph by WJE, October 16, 2012.

FIGURE 369. Close-up view of wood planking observed behind a the brick veneer at the location shown in Figure 368. The corrugated metal tie at right was intended to secure the veneer. Photograph by WJE, October 16, 2012.

FIGURE 370. Location where floor framing steps down from 2 by10 joists to 2 by 6 joists at the west area of the second floor. A similar condition exists at the east area, view looking east. Photograph by WJE, October 16, 2012.

Second Floor. The second floor is divided into three main spaces: the center storage room (room 201), the east storage room (room 202), and the west storage room (room 203). The stairs from the first floor ascend directly into the center room. This space extends for the entire north-south width of the second floor and has a deeper floor construction compared to the other spaces on the second floor. The floor framing in this area consists of 2 by 10 wood joists. The exact spacing of the joists could not be confirmed, but they are likely between 16 and 24 inches on center. The joists are planked with 3/4-inch tongue and groove planking, approximately 7-inch wide, and a wood finish floor.

The top surface of the floor framing steps down approximately 4 inches from the center room (201) at both the east (202) and west (203) attic rooms (Figure 370). This offset is due to the use of shallower joists at the east and west rooms, with the bottom surface of all joists set at the same level.

The east storage room (room 202) is framed with 2 by 6 joists at approximately 16 inches on center. The joists are covered with 1 by 7 wood planks, with no finish flooring. At the east end of the room a portion of the floor is raised approximately 3 inches and covered with plywood (Figure 371). This location appears to be related to supplemental perpendicular framing that creates the offset transition between the brick-clad wood wall construction at the first floor and the stucco-clad wood wall at the gable. The interior of the room is finished with rigid insulation board at the end walls, knee walls, and the ceiling, concealing the wall studs and rafters at this location. The knee walls along the north and south sides were added as part of the 1997 work.

FIGURE 371. Plywood platform framed out at the east end of the second floor, view looking southeast. Photograph by WJE, October 17, 2012.

The west storage room (room 203) is similarly framed with 2 by 6 joists and one inch thick planking. However, in this space there is irregular framing at the far west with two 2 by 10 members framing north-south (Figure 372). Similar to the east end, this irregular framing appears to be related to the offset transition between the brick-clad wood wall construction at the first floor and the stucco-clad wood wall at the gable. A masonry chimney, 25 inches by 17 inches in plan dimension, is located in the center of the west attic space, coincident with the interior bearing wall at the first floor (Figure 373). The interior of the room is framed out with rigid insulation board at the end walls, knee walls, and the ceiling, concealing the wall studs and rafters at this location. The knee walls along the north and south sides were added as part of the 1997 work.

FIGURE 372. Two 2 by 10s framed north-south at the west end of the second floor, view looking northwest. Photograph by WJE, October 16, 2012.

FIGURE 373. Masonry chimney located at the west area of the second floor, view looking southwest. Photograph by WJE, October 16, 2012.

Roof. The roof framing was accessed through an inspection opening made by removing a rigid insulation board at the ceiling of the west attic room. Also, the lower portion of the roof framing was viewed through inspection openings made by removing rigid insulation at the north and south knee walls of the west room. The gable roof is framed by 2 by 6 common

rafters spaced at 24 inches on center that frame into a 2 by 6 ridge. A 2 by 4 collar tie frames between each rafter approximately 27-1/2 inches below the ridge (Figure 374). At the north and south elevations, matching dormers frame into the main roof framing with valley rafter jacks framed into valley rafters, also 2 by 6 framing. Roof rafters extend down to the bear on the top plate of the exterior bearing walls and are not necessarily aligned with second floor ceiling joists (Figure 375). The top of the 2 by 6 second floor joists are located approximately 10 feet 2 inches below the roof ridge. All connections are typically nailed.

FIGURE 374. Typical gable roof framing with 2 by 6 common rafters framing into a 2 by 6 ridge and 2 by 4 collar ties, view looking east. Photograph by WJE, October 17, 2012.

FIGURE 375. Roof rafters bear on the top plate of the exterior bearing walls, but do not coincide with first floor ceiling joists. Looking south. Photograph by WJE, October 17, 2012.

The north chimney was previously cut short of the roof, and the roof was patched. Supplemental 2 by 4 and 2 by 6 framing was added to support the new infill roof decking in this location (Figure 376). It is believed that this alteration was part of the 1997 work. The roof is sheathed with 1 by 8 tongue and groove planking oriented perpendicular to the joists.

FIGURE 376. Supplemental 2 by 4 framing to support roof framing where masonry chimney was cut short, view looking west. Photograph by WJE, October 17, 2012.

At the far west end of the building, the framing of the small gable wall was visible. This wall is built as a 2 by 4 stud wall without any sheathing. The metal lath and stucco of the exterior finish was visible on the attic interior (Figure 377).

FIGURE 377. Partial view of a typical gable end wall framed with 2 by 4 studs to support stucco cladding, view looking west. Photograph by WJE, October 16, 2012.

Condition Assessment.

- From inside the crawl space, the first six or seven courses of brick of the piers and the interior of the perimeter wall were observed to be discolored and stained with efflorescence. Efflorescence was also observed on the remaining courses including portions of the perimeter wall that may have been rebuilt as a part of the 1997 work. Some of the mortar joints at the interior of the perimeter wall were also noted to be partially eroded. It is evident that standing water has been a recurring issue in the crawl space (Figure 378).

- The brick masonry foundation and the facade in general are also severely cracked in a number of places. Portions of the wall were noticeably stepped out from the original plane of the wall. Crack displacements were observed in excess of 1 inch at some locations (Figure 379 through Figure 381). Additionally, the parge coat is cracking, crumbling, and sometimes missing at certain locations along the foundation (Figure 382). This distress is consistent with differential settlement of the foundation, caused by the expansive soils that are typical in Hempstead County. In addition to the effects of differential settlement, the distress at the brick veneer could be compounded if the veneer is insufficiently tied back to the structure of the house. During the site visit, only one corrugated metal tie was observed, at which no nail connection to the wood backup was observed.

- In general, the notched support detail observed at the joists significantly limits the load-carrying capacity of the floor system. The notched condition violates the provision of Section 4.4.3 of the *National Design Specification for Wood Construction* (NDS), which states, “End notches, located at the ends of sawn lumber bending members for bearing over a support . . . shall not exceed 1/4 the beam depth.” In this case, the typical 6-1/2-inch-deep notch exceeds that limiting value by approximately 4 inches.

- Two joists were observed to be notched at a second location in addition to the original bearing notch at the 2 by 4 ledger. While these notches do not additionally reduce the shear capacity below that of a typical notched joist, the dimensions of the notches violate the provisions of the NDS stating that no notch shall be deeper than 1/6 the depth of member (except for when the notch is an end notch for bearing at a support) or shall be longer than 1/3 the depth of the member (Figure 383).

- A couple of joists were observed to have splits propagating from the edge of the notch. It is probable that the sister joist retrofits were made to address this issue. While these repairs could not be observed close-up, they appear to be notched as well. Therefore, the compliance and capacity of these repairs should be verified and strengthened as necessary.

- At least one area of decayed first floor joist was observed (Figure 384) though close-up examination was not possible. This joist appeared to be previously repaired with a sister joist spliced over a pier at midspan. The decayed joists were located near plumbing that served the original bathroom and kitchen in the building and may be related to previous plumbing leaks.

- At least one location exists where a significant portion of the joist had been notched in two locations to accommodate plumbing. These notches occur closer to the midspan of the joist at the tension face (Figure 385). According to current design standards as provided in the NDS, notches located within the middle third of the span are not permitted. While notches are permitted in the outer thirds of the span, the notches are not allowed to exceed 1/6 the depth of the member.

- Some of the interior doorways were noted to be skewed; however, these were not accompanied by distressed finishes, thus, any movement implied by the skew was likely existing at the time of the 1997 work (Figure 386). This condition does not appear to be an issue at this time.

- One of the supplemental vertical members at the roof framing near the chimney modification is detached from the collar tie (Figure 387).

- Localized splitting was observed in the roof framing (Figure 388).

FIGURE 378. Brick deterioration and staining due to water damage at the interior of the perimeter foundation wall. Note, some mortar joints are eroded, view looking east. Photograph by WJE, October 17, 2012.

FIGURE 379. Step cracking and displacement in excess of 1 inch typically noted at the masonry foundation and facade, view looking south. Photograph by WJE, October 17, 2012.

FIGURE 380. Typical step cracking and displacement observed at the masonry facade, view looking west. Photograph by WJE, October 17, 2012.

FIGURE 381. Missing brick at the west elevation, view looking east. Photograph by WJE, October 17, 2012.

FIGURE 382. Typical cracking and displacement seen at foundation parge coat. Note, bricks beneath parge are also cracked, view looking east. Photograph by WJE, October 17, 2012.

FIGURE 383. Two joists were noted to have a second notch at the tension face, view looking west. Photograph by WJE, October 17, 2012.

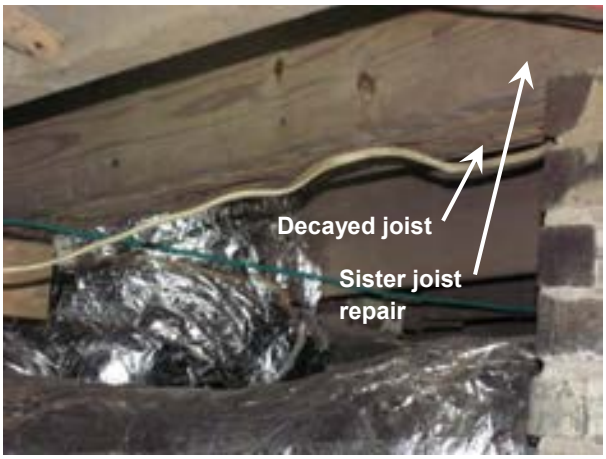


FIGURE 384. Decayed joist with sister joist repair and supported on masonry pier at midspan, view looking northeast. Photograph by WJE, October 17, 2012.

FIGURE 385. One location was observed where a significant portion of the joist had been notched in two locations to accommodate plumbing, view looking west. Photograph by WJE, October 17, 2012.

FIGURE 386. Skewed doorway at location of interior bearing wall. Architecture finishes were observed to be intact at this location, view looking south. Photograph by WJE, October 16, 2012.

FIGURE 387. Supplemental vertical support assumed to be installed during chimney modification is detached at the collar tie connection, view looking north. Photograph by WJE, October 17, 2012.

FIGURE 388. Splitting and checking observed at roof collar tie, view looking east. Photograph by WJE, October 17, 2012.

Preliminary Structural Review. A preliminary structural review was performed to determine a general superimposed live load capacity for the second floor of the visitor center.

The second floor can be divided into two framing types: 2 by 10 wood joist framing in the center storage room (room 201) and 2 by 6 wood joist framing in the east and west attic storage rooms (rooms 202 and 203). The spacing of these joists could not be confirmed due to the existence of architectural finishes, but are reasonably assumed to be spaced at either 16 inches or 24 inches on center based on the spacing of other framing elements observed.

The 2 by 10 framing area is assumed to have a maximum span of approximately 16 feet on center, while the 2 by 6 framing areas are assumed to have a maximum span of approximately 13 feet 3 inches on center.

A number of assumptions were made for the purpose of this evaluation. Wood samples taken from the first floor framing established that the wood species is likely longleaf pine, a type of southern yellow pine (see Appendix D). Strength properties of the wood were based on values published in the 2005 *National Design Specification for Wood Construction* (NDS 2005) for number 2 grade and number 1 grade sawn lumber. It was assumed that all connections are adequate to transfer the required loads and that no significant defects exist that would compromise the capacity of the joists. The joists are considered as governing the floor capacity. Additionally, it was assumed that the joists are adequately braced according to the NDS 2005 specification. Finally, the framing was considered for both bending and shear action. While a notched support condition was observed at the first floor framing, it is unlikely that this detail is repeated at the second floor based on the alignment observed at the bottom of the 2 by 10 and 2 by 6 joists. Additionally, a single joist end was viewed from an accessible area, where it did not appear to be notched for the visible section of the joist. Therefore, for the purpose of this analysis, the full joist depth is considered in the shear calculation. However, it is important to note that the joist capacity could be significantly reduced if the ends are notched, and this specific condition should be confirmed prior to increasing the occupancy of the second floor space.

The existing dead load values were approximated using typical values published in the *ASCE Standard 7: Minimum Design Loads for Buildings and Other Structures* (ASCE 7-05). The dead loads considered include a gypsum board ceiling, 1 inch nominal wood sheathing below, the joists, subflooring, a hardwood floor, and an allowance for mechanical loads, yielding an approximate existing dead load of 14 pounds per square foot (psf) for the 2 by 6 area and 15 psf for the 2 by 10 area. The dead load was subtracted from the total allowable uniform load capacity to determine the allowable superimposed live load.

Based on the preliminary analysis, both the 2 by 10 and 2 by 6 framing areas are governed by bending. Under the stated assumptions, the 2 by 10 framing has an allowable uniform superimposed live load in the range of 19 psf at 24 inch spacing, to 35 psf at 16 inch spacing, if the wood is number 2 grade. However, if a higher grade lumber, such as number 1 grade, can be justified based on visual grading of the joists, this range can be increased to 27 psf and 48 psf, respectively.

Under the stated assumptions, the 2 by 6 framing has an allowable uniform superimposed live load in the range of 7 psf at 24 inch spacing, to 17 psf at 16 inch spacing, if the wood is number 2 grade. However, if a higher grade lumber, such as number 1 grade, can be justified based on visual grading of the joists, this range can be increased to 13 psf and 27 psf, respectively.

While the calculated allowable live loads may have been adequate for residential occupation, the existing capacity is insufficient for contemporary office use. Therefore, structural repair and/or retrofit would likely be required before the second floor level could be adaptively reused as office space.

A more comprehensive investigation is required to verify the assumptions made relative to span length, spacing, support condition, and connections, as well as to determine a more accurate visual grading of the wood.

Table 1. Summary of Preliminary Review

Joist Size	Joist Spacing (on center)	Wood Grade	Allowable Uniform Superimposed Live Load
2x10	16"	No. 2	35 psf
		No. 1	48 psf
	24"	No. 2	19 psf
		No. 1	27 psf
2x6	16"	No. 2	17 psf
		No. 1	27 psf
	24"	No. 2	7 psf
		No. 1	13 psf

Mechanical System Evaluation

Heating, Ventilating and Air Conditioning (HVAC). The visitor center was a private home prior to a renovation project in 1997. There are no records or information available as to what systems and equipment served the building prior to 1995.

As part of other 1995 -1996 work, an air conditioning and heating systems upgrade was designed for the second floor of the visitor center. The HVAC upgrade project, as designed, was to include a new gas-fired furnace located in the second floor closet. This work was never implemented. It is unknown why the work was never undertaken. To provide some air conditioning of the second floor, window air conditioners were installed in the three main rooms of the second floor. East storage 202 is served by a Haier Model HWR18VC7 window air conditioner, with a capacity of 17,000 BTUh (Figure 389). Storage 201 is served by a Haier Model HWR12XC5 window air conditioner, with a capacity of 12,000 BTUh (Figure 390). West storage 203 is served by a General Electric Model AQV08AAMI window air conditioner with a capacity of 8000 BTUh (Figure 391). These three room window air conditioners remain to today and continue to serve the spaces.

FIGURE 389. Window air conditioner at east storage 202 of the second floor of the visitor center. Photograph by Alvine, May 15, 2013.

FIGURE 390. Window air conditioner at north/south center storage room 201 of the second floor of the visitor center. Photograph by Alvine, May 15, 2013.

FIGURE 391. Window air conditioner at west storage 203 of the second floor of the visitor center. Photograph by Alvine, May 15, 2013.

In 2011, an HVAC upgrade was implemented at the first floor of the visitor center. Existing HVAC equipment was removed and replaced with a new grade-mounted, packaged gas heating and electric air conditioning unit. The unit is a Trane Model 4DCZ6048A1096B unit with a heating capacity of 27500 BTUh and a 44500 BTUh gas heat input (Figure 392). The cooling capacity of the package unit is 47,500 BTUh, with a SEER rating of 16.

The visitor center first floor is approximately 1,694 square feet. Based on 400 to 450 square feet per ton, it appears the existing four-ton HVAC system is of an appropriate capacity for the first floor of the visitor center and does not appear to be oversized.

FIGURE 392. Grade-mounted packaged heating and cooling unit serving the visitor center. Photograph by Alvine, May 15, 2013.

Supply and return air ductwork originating at the exterior packaged unit enter and exit the structure from the crawlspace below the first floor (Figure 393). The supply and return air ductwork outside the building appears to be internally insulated with duct liner. The ductwork outside the building is not painted. The joints at the exterior ductwork only appear to be sealed on the top of the duct. The joints in the other sides of the exterior duct appear not to be sealed. It is unknown if any water migration into the ducts occurs during rainfall.

FIGURE 393. Supply and return air ductwork originating at packaged heating and cooling unit serving the visitor center. Photograph by Alvine, May 15, 2013.

Supply air ductwork is routed throughout the crawlspace below the first floor. Air is discharged to the various rooms on the floor by means of floor supply air registers that are similar to the Cassidy House floor registers. The

floor registers are located near windows. The majority of the grilles are 12 inches by 6 inches in size. The floor grilles at the first floor reception 102 are 14 inches by 6 inches in size.

The main return air duct is located in the first floor crawlspace where it routes to the center of the first floor, where it offsets up to below the central stairwell landing. At the space below the landing, the return air duct is connected to a 26-inch by 24-inch single deflection, hinged wall grille. The wall grille is located on the south wall of the reception room. The wall grille has an integral frame, allowing filters to be placed directly behind the grille face. This configuration allows easy access to the filters for replacement when the grille is opened.

Temperature Control. Temperature control for the first floor heating and cooling system is accomplished by use of an electronic, seven-day programmable thermostat. The thermostat is a Trane Model TCONT802AS32DA. The thermostat is located on the south wall of the reception room above the main return air grille.

Code Compliance/Life Expectancy. There are no code related issues regarding the HVAC systems serving the first floor of the visitor center. The visitor center HVAC system does not have provisions for introduction of minimum outside air to meet ventilation requirements, but the building does have operable windows that can be used for fresh air introduction.

As the HVAC systems were installed in 2011 and are only two years old, they should have a life expectancy of another fifteen to twenty years.

Plumbing Systems and Utilities. The plumbing system for the visitor center remains today very much as it was when renovation work was undertaken in 1997. Building plans indicate that much of the sanitary sewer and vent system, along with all of the interior potable cold and hot piping, was to have been removed and replaced. It is assumed that much of the sanitary waste below the first floor at the crawlspace was removed and replaced to accommodate the removal of the previous first floor bathroom and kitchen plumbing fixtures. Very little new sanitary waste and vent piping was to have been installed as part of the 1997 work. The majority of the new waste pipe was installed within the crawlspace of the first floor.

As much of the plumbing piping systems is not visible, it is assumed the sanitary sewer and vent piping system is composed mainly of cast iron waste pipe. Similar to the sanitary waste pipe, the potable water piping is not visible and is located in the crawlspace below the first floor. The water pipe is assumed to be galvanized steel pipe with threaded fittings. In locations where potable water piping is visible, it is uninsulated copper pipe. The type of pipe-fitting solder material is unknown.

There is no internal storm piping system serving the visitor center.

Natural gas utility service supports the packaged air conditioning unit serving the visitor center first floor. The utility company gas meter and gas entrance are located at the west side of the visitor center. The gas runs from the meter directly into the crawlspace under the first floor (Figure 394). The gas piping runs through the first floor crawlspace, where it exits the building at the south side and continues to the HVAC unit on grade (Figure 395). The natural gas piping at the visitor center is composed of black steel pipe with threaded fittings.

FIGURE 394. Gas meter and service entrance location at west side of the visitor center. Photograph by Alvine, May 15, 2013.

FIGURE 395. Gas piping exiting the visitor center south crawlspace wall to grade-mounted packaged heating and cooling unit. Photograph by Alvine, May 15, 2013. M32

The plumbing fixtures that were located in the house prior to the 1997 work were removed as part of that project. The removal included the first floor kitchen and first and second floor bathroom fixtures. The renovation project was initially designed to include a new catering kitchen located between what was then identified as the west children's activity room and east bookstore. The children's activity room and bookstore space were instead constructed as office space. The plumbing fixtures, including a double sink, were never installed in the catering kitchen space. This space was never built out and thus became a storage room, copy room 107. The west office space, office 108, did, however, receive a counter-mounted sink and a new counter for a microwave oven. Below the counter is a 6-gallon, 120-volt, 1.5 kW electric water heater, which was installed to serve the counter sink (Figure 396).

FIGURE 396. Visitor center electrical panel in office 108 showing insufficient working space clearance. An electric water heater is located below the counter the at first floor office. Photograph by Alvine, May 15, 2013.

At the second floor of the visitor center, a small counter-mounted sink remains today in a small alcove between west storage 203 and storage 201. Sanitary waste and vent piping, along with potable water, is still piped to the sink, but the sink appears not have been used for some time.

The visitor center has an above-grade hose bibb located approximately 10 to 15 feet north of the northwest corner of the building. The hose bibb does not appear to be of a freeze-proof design.

Code Compliance/Life Expectancy. There are no code-related issues regarding the plumbing systems serving the visitor center. The sink located at the second floor does not appear to have been used in some time. If the sink has not been used, it is likely the sink waste trap is dried out, which could allow sewer gas to migrate to the second floor. No sewer gas was noticed at the time of the building walkthrough.

As the plumbing systems present at the visitor center are very limited and were renovated as part of the 1997 work, they should continue to serve the facility for the next fifteen to twenty years.

Fire Protection. There is no fire protection system currently in place at the visitor center.

Electrical System Evaluation

Primary Power Distribution. The electrical primary power that serves the President William Jefferson Clinton Birthplace Home National Historic Site is routed underground off National Park Service property to Second Street in an area originally designated as an alley (Figure 397).

FIGURE 397. Power company pad-mounted transformer and the visitor center meter pedestal. Photograph by Alvine, May 15, 2013.

The primary power serves a power company 50 kVA pad-mounted transformer. The secondary output of the transformer is 120/240-volt, single-phase, three-wire. The pad-mounted transformer is located off National Park Service property in the former alley, approximately 25 feet south of the visitor center.

The pad-mounted transformer serves the Cassidy House, the visitor center, and two other private residences on the same block.

Electrical Service. From the pad-mounted transformer, an underground 120/240-volt, single-phase, three-wire, 200-amp secondary electrical feeder is routed to a ground-mounted 200-amp meter pedestal (refer to Figure 397). A portion of the feeder and the meter pedestal are located off National Park Service property in the former alley. From the meter pedestal, a 200-amp underground secondary electrical feeder is routed to a load center in the visitor center. The load center is a Square D, QO type, 120/240 volt, single phase, three-wire, with ground bar, forty-two-pole, and is flush mounted. The electrical service was installed in 1996 (Figure 398).

FIGURE 398. Electrical panel in office 108. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The electrical service meets the minimum requirements of the NEC. The life expectancy is at least twenty years from present time. Because an electric water heater and counter have been installed in front of the load center, the required working space is reduced and is an NEC violation (refer to Figure 396).

Interior Wiring. The building is wired with NMC. The NMC cable has copper conductors and a ground wire, and is concealed in walls and above ceilings. The NMC cable in the attic is not installed with good workmanship and is not supported correctly (Figure 399 and Figure 400). The interior wiring was installed in 1996. The original interior wiring was knob and tube, some of which is visible, though inactive, in the attic.

FIGURE 399. Electrical wiring in attic with incorrectly routed and unsupported cables. Photograph by Alvine, May 15, 2013.

FIGURE 400. Electrical wiring in attic with incorrectly routed and unsupported cables. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The NMC cable installation in the attic does not meet the minimum NEC requirements. The life expectancy of the interior wiring is twenty years from present time.

Grounding. The grounding electrode system for the electrical service is grounded to the water service and also connected to a driven ground rod. Branch circuits utilize the ground wire in the NMC for the equipment grounding conductor. The grounding system was installed in 1996.

Code Compliance/ Life Expectancy. The grounding electrode system and equipment grounding system meet the minimum requirements of the NEC.

Lighting. The lighting fixtures were installed in 1996. Entry 101 has a combination ceiling fan/light with compact fluorescent lamps. Reception 102 has five pendant lighting fixtures. Exhibit 103 has two rows of track lighting. The track lighting lamps are 150-watt incandescent. The bookstore has one row of track lighting. The track lighting lamps are 150-watt incandescent. Office 106 has a combination ceiling fan/light with compact fluorescent lamps. The closet for office 106 has one ceiling lighting fixture. Copy room 107 has one ceiling lighting fixture. Office 108 has one ceiling lighting fixture. There is an exterior wall-mounted mercury vapor area light. Storage 201 upstairs has five porcelain lamp holders (Figure 401 through Figure 407).

FIGURE 401. Exhibit 103 track lighting. Photograph by Alvine, May 15, 2013.

FIGURE 402. Reception room 102 lighting. Photograph by Alvine, May 15, 2013.

FIGURE 403. Entry 101 wall light. Photograph by Alvine, May 15, 2013.

FIGURE 404. Entry 101 ceiling fan/ light. Photograph by Alvine, May 15, 2013.

FIGURE 405. Ceiling fan/ light in office 106. Photograph by Alvine, May 15, 2013.

FIGURE 406. Front porch lighting fixture. Photograph by Alvine, May 15, 2013.

FIGURE 407. Exterior area lighting fixture. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The lighting fixtures meet the minimum requirement of the NEC. The lighting fixtures and switching do not meet the minimum requirement of current energy codes.

Exit Lighting/Emergency Lighting. The building has two exit lights. One is located over the door in the reception 102 leading to entry 101. The other exit light is located in corridor 105 leading into reception 102 (Figure 408). The building does not have a battery-powered emergency light.

FIGURE 408. Exit light at corridor 105. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. Additional exit lights and emergency lights are required to meet life safety code requirements.

Devices (Switches and Receptacles). The electrical wiring devices are 20-amp rated, ivory color, with white coverplates. The copy machine is plugged into a receptacle in room 107, with the cord routed through the wall (Figure 409 and Figure 410).

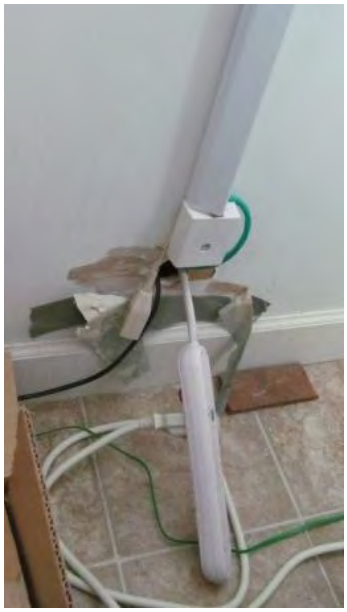


FIGURE 409. Electrical cord in room 107, routed through wall into room 106. Photograph by Alvine, May 15, 2013.

FIGURE 410. Receptacle showing ivory colored device with white cover plate. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The cord routed through the wall for the copy machine is a NEC violation. A new receptacle near the copy machine with a dedicated branch circuit should be provided. The remaining devices' life expectancy is fifteen years from present time.

Fire Alarm/Intrusion Alarm System. The building has a security system. The main control panel is located in the copy room (Figure 411). The main panel is Digital Monitoring Products Model XR500. There is a transmitter located above the security panel. The security panel is capable of monitoring fire alarm devices.

FIGURE 411. Intrusion alarm panel in the copy machine room. Photograph by Alvine, May 15, 2013.

Fire alarm smoke detectors are wired back to the security panel in the exhibit 103, copy room 107, office 106, and bookstore 104, and at the second floor. In addition to these smoke detectors there are stand-alone battery powered smoke detectors in the office 108 and at the second floor storage 201. There are no audible or visual fire alarm devices (Figure 412).

FIGURE 412. Intrusion alarm motion detector. Photograph by Alvine, May 15, 2013.

There are security system motion detectors reception 102 and bookstore 104, and at the second floor storage 201(refer to Figure 412).

Code Compliance/Life Expectancy. Since the fire alarm system has no audible or visual devices, not all the smoke detectors are hard-wired back to the fire alarm panel. The fire alarm system does not meet life safety code requirements.

Communication System. There is an outside telephone service pedestal (Figure 413).

FIGURE 413. Telephone service pedestal. Photograph by Alvine, May 15, 2013.

There are telephone and data outlets located in the entry 101, reception 102, office 106 and office 108 (Figure 414 through Figure 416).

FIGURE 414. Communication wiring and power wiring near reception desk in entry 101. Photograph by Alvine, May 15, 2013.

FIGURE 415. Communication wiring and power in office room 106, looking down the west wall. Photograph by Alvine, May 15, 2013.

FIGURE 416. Outside telephone DeMark service entrance location. Photograph by Alvine, May 15, 2013.

There is a project scheduled in the near future to replace the communication cabling and outlets in the building with a Category 6 system.

Code Compliance/Life Expectancy. Due to the outdated communications cables. The lack of rack-mounted communication equipment and no dedicated space for communication equipment, the current communication system does not meet current standards. The current standards are defined by the following: BICSI (Building Industry Consulting Services Internal); TIA (Telecommunication Industry Association); EIA (Electronics Industry Alliance).

Comfort Station

The building, which was built in 1997, contains restrooms and a small storage area. The 17-foot 4-inch by 31-foot 4-inch building is single story of wood-frame construction, faced with brick (Figure 417). As constructed, the comfort station resembles a garage that was previously on the site. The comfort station has Craftsman-style features similar to those seen on the visitor center.

FIGURE 417. A view of the comfort station from the northwest. Photograph by WJE, October 15, 2012.

Exterior Evaluation

Description. The comfort station is a small, one-story brick-veneer structure. The building has an asphalt-shingle clad gable roof with exposed roof rafters on the east and west elevations. The existing asphalt shingle roof was installed in late 2011.

The north elevation of the comfort station faces Division Street (Figure 418). A set of wooden garage doors is present at the center of the elevation. The wood plank doors with exposed framing, resemble a door that would have been present on a garage dating from the same period as the visitor center. A concrete ramp leads to the doorway.

FIGURE 418. The north elevation of the comfort station. Photograph by WJE, October 16, 2012.

The gable end is covered with exterior insulation and finish system (EIFS) cladding to match the plaster at the gable ends of the visitor center. Decorative vertical wood trim divides the gable end into four parts. There are three triangular knee braces at the roof-wall junction on the north elevation.

The east elevation includes a glass block opening at the north side. The opening consists of sixteen 8-inch-square glass blocks set on a rowlock sill. A soldier course is present at the window head. The rest of the elevation is brick masonry.

The south elevation is brick masonry, with the gable end clad in EIFS with decorative wood trim (Figure 419). The vertical wood trim divides the gable end into four parts. Three triangular knee braces are present at the roof-wall junction.

FIGURE 419. The south elevation of the comfort station. Photograph by WJE, October 16, 2012.

The west elevation contains a recessed area that leads to entrances to the men's and women's restrooms (Figure 420). The entryway, which is approximately 35 square feet in size, is accessed through a 6-foot 8-inch opening and has a ceramic tile floor. A metal door to the men's restroom is located on the south wall of the alcove and a metal door to the women's restroom is located on the north wall. The east wall contains no openings and features two small signs designating the two restrooms. A glass block window is located on either side of the recessed area. Each opening consists of sixteen 8-inch-square glass blocks on a rowlock sill. A soldier course is present at the window head. A third glass block opening is present on the far north end of the west elevation. It is similar to the other glass block openings on the building. A wall-mounted drinking fountain is located under the south glass block opening.

According to a note on the Cromwell drawings, the intent was to "reuse existing [face brick] from garage [and] blend w[ith] new as required."[61] It is not clear to what extent new or salvaged brick units were used; all of the brick on the comfort station has a consistent color and texture but does not match the rougher texture of the historic brick on the visitor center. This consistency on the comfort station suggests that all of the face brick was new for the 1997 project and that no salvaged brick was actually installed.

FIGURE 420. A view of the west elevation of the comfort station. Photograph by WJE, October 16, 2012.

Condition Assessment. The following condition was observed at the exterior of the comfort station:

- Miscellaneous locations of vertical cracks were noted in the bricks. These cracks are typically isolated within individual brick units and therefore likely are indicative of a manufacturing defect rather than a masonry veneer structural issue. One split was observed to be partially filled with mortar (Figure 421). This condition does not appear to be an issue at this time.

- A mortar joint at the northeast corner of the building is missing approximately 2 inches of mortar (Figure 422).

- Staining was observed at the concrete edge and the first six courses of brick at the west elevation (Figure 423). This staining may be related to splash back of rainwater and roof runoff, from the adjacent concrete-paved sidewalk. Deicing salts are occasionally

61. Cromwell Architects Engineers, "Clinton First Home Renovation," Sheet A1.4, Bathroom Facility Plans (Little Rock, Arkansas, October 11, 1996).

used in this location and may contribute to the observed staining.

FIGURE 421. Typical location where bricks exhibit vertical splitting, a likely manufacturing defect, was observed with no signs of related distress in the mortar. Looking north. Photograph by WJE, October 17, 2012.

FIGURE 422. Missing mortar at northeast corner masonry joint. Looking southwest. Photograph by WJE, October 17, 2012.

FIGURE 423. Staining observed at the concrete edge and the first six courses of brick at the west elevation. Photograph by WJE, October 17, 2012.

Interior Evaluation

The comfort station contains men's and women's restrooms and a storage space. The men's room contains one universally accessible stall, one urinal and one sink. The women's room contains two stalls (one is universally accessible) and one sink. The stalls contain red steel partition walls.

Maintenance Storage (Room 101).

Floor. The floor of the storage room is the concrete slab of the building, with no finish (Figure 424). The slab is in good condition.

FIGURE 424. Concrete slab floor of the maintenance storage room, looking south. Photograph by BVH, October 16, 2012.

Walls. The walls of the storage building are unfinished plywood (Figure 425). A ladder constructed of pine stock lumber is affixed to the south wall to access a hatch to the attic space above the restrooms (Figure 426). The walls are in good condition.

FIGURE 425. Plywood south wall assembly. Photograph by BVH, October 16, 2012.

FIGURE 426. Ladder accessing the attic space above the restrooms on the south wall. Photograph by BVH, October 16, 2012.

Ceiling. The storage room does not have a ceiling. The roof trusses and plywood roof deck are exposed, with no finish (Figure 427). Fluorescent troffer light fixtures are suspended from the trusses. These elements are in good condition.

FIGURE 427. Exposed roof structure in the maintenance storage room, looking south. Photograph by BVH, October 16, 2012.

Doors. Double barn doors are located on the north side of the building. Each leaf is 4 feet wide and 7 feet tall, making an 8-foot-wide opening (Figure 428). The out swinging doors are constructed of 3/4-inch by 3-1/2-inch vertical wood stock, painted white, and are in good condition.

FIGURE 428. One leaf of the double doors on the north side of the space. Photograph by BVH, October 16, 2012.

Windows. The storage room contains two windows, one on the east and one on the west side. The square windows are made of 8-inch-square glass block, each four blocks wide and four blocks tall, making the windows 2 feet 8 inches square. The interior trim is 3/4-inch by 3-1/2-inch pine, unfinished (Figure 429). The windows are in good condition.

FIGURE 429. Glass block windows, one on each of the east and west sides of the room. Photograph by BVH, October 16, 2012.

Women's Room (Room 102). The women's room contains two water closet stalls and one sink (Figure 430). One of the stalls is wheelchair accessible (Figure 431).

FIGURE 430. Sink in the women's room on the south wall. Photograph by BVH, October 16, 2012.

FIGURE 431. Accessible stall in the women's room in the south east corner of the room. Photograph by BVH, October 16, 2012.

Floor. The floor finish of the women's room is 8-inch ceramic tiles in a grid pattern. The tiles are of a tan color with a dark brown grout (Figure 432). The tiles are in good condition.

FIGURE 432. Ceramic tile floor of the women's room looking east. Photograph by BVH, October 16, 2012.

Walls. The walls of the women's room are gypsum board, painted white. The walls are generally in good condition, with the exception of holes created by the handle hardware of the stall doors, which have slammed against the walls (Figure 433). The wall base is composed of 4-inch by 8-inch ceramic tiles matching those of the floor. The walls are in fair condition.

FIGURE 433. Damage to the gypsum board of the south wall due to the water closet door hardware puncturing the wall. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the women's room is gypsum board, painted white. The ceiling contains two, 2-foot by 4-foot fluorescent light fixtures, as well as one air diffuser and two return grilles (Figure 434). The ceiling is in good condition.

FIGURE 434. Ceiling with mechanical openings and fluorescent light fixtures, looking east. Photograph by BVH, October 16, 2012.

Doors. The space contains one door, accessing the exterior of the building. It is an outswing 3-foot by 7-foot steel flat panel door. The door contains a push plate and stainless lock (Figure 435). The door is in good condition.

FIGURE 435. The steel outswing door of the women's room, looking south. Photograph by BVH, October 16, 2012.

Windows. The women's room contains one window, located on the west side of the building. The window is composed of 8-inch-square glass block, four blocks wide and four blocks tall, making the window 2 feet 8 inches square with gypsum board returns (Figure 436). The window is in good condition.

FIGURE 436. The glass block window of the women's room on the west wall. Photograph by BVH, October 16, 2012.

Men's Room (Room 103). The men's room contains one accessible water closet stall, one urinal, and one sink (Figure 437 through Figure 439).

FIGURE 437. Men's room accessible water closet, looking east. Photograph by BVH, October 16, 2012.

FIGURE 438. Men's room urinal on the north wall. Photograph by BVH, October 16, 2012.

FIGURE 439. Men's room sink on the north wall. Photograph by BVH, October 16, 2012.

Floor. The floor finish of the men's room is 8-inch ceramic tiles in a grid pattern (Figure 440). The tiles are of a tan color with a dark brown grout. The tiles are in good condition.

FIGURE 440. ceramic tile floor in the men's room looking east. Photograph by BVH, October 16, 2012.

Walls. The walls of the men's room are gypsum board, painted white. The walls are generally in good condition, with the exception of holes created by the handle hardware of the stall doors, which have slammed against the walls (Figure 441). The wall base is composed of 4-inch by 8-inch ceramic tiles matching those of the floor. The walls are in fair condition.

FIGURE 441. damaged south wall in the men's room. Photograph by BVH, October 16, 2012.

Ceiling. The ceiling of the men's room is gypsum board, painted white. The ceiling contains two, 2-foot by 4-foot fluorescent light fixtures, as well as one air diffuser and two return grilles (Figure 442). The ceiling is in good condition.

FIGURE 442. ceiling of the men's room looking west. Photograph by BVH, October 16, 2012.

Doors. The door is an outswing 3-foot by 7-foot steel flat panel door. The door contains a push plate and stainless lock (Figure 443). The door is in good condition.

FIGURE 443. The steel outswing door of the men's room on the north wall. Photograph by BVH, October 16, 2012.

Windows. The men's room contains one window, located on the west side of the building. The window is composed of 8-inch-square glass block, four blocks wide and four blocks tall, making the window 2 feet 8 inches square with gypsum board returns (Figure 444). The window is in good condition.

FIGURE 444. The glass block window of the men's room on the west wall. Photograph by BVH, October 16, 2012.

Structural System Evaluation

The structural system of the comfort station was observed visually from the storage area at the north end of the building, where the wood framing is exposed at the ceiling and at the top of the walls. The remainder of the comfort station interior houses public restrooms, and is finished at the walls and ceiling with gypsum drywall. No inspection openings were made through architectural finishes. Original architectural plans for the building were also available for review.[62] Based on the small size of the structure, the regularity of the structural plan, the typical conditions observed at visually accessible locations, and the available drawings, inferences have been made about the portions of the structure that could not be observed directly. All wood framing profile dimensions given are nominal unless stated otherwise.

Foundation. A note on the construction drawings for the comfort station calls for the "existing garage structure and foundation to be removed." Limited information is provided regarding the foundation for the new structure. A note on the drawings designates a "new 6 inch th[ic]k ribbed slab w/heavy reinforcement" in the men's restroom, while another shows the "floor in storage area to be exposed concrete, sealed." Both of these notes, combined with the concrete slab edge that is visible above grade at the building's exterior, indicate that the comfort station was built on a 6-inch-thick reinforced concrete slab-on-grade. According to the drawings, the building is approximately 17 feet 4 inches in the east-west direction by 31 feet 4 inches in the north-south direction.

Structural Framing. The one-story structure consists of typical 2 by 4 stud wall construction

62. Cromwell Architects Engineers, "Clinton First Home Renovation," Sheet A1.4, Bathroom Facility Plans (Little Rock, Arkansas, October 11, 1996).

with 5/8-inch plywood sheathing, as indicated on the Cromwell drawings and confirmed by visual observations in the field. All wood connections appear to be nailed. At the storage area of the building, the interior side of the stud wall is sheathed with 5/8-inch plywood. The end walls are gable walls that rise to a height at the peak of approximately 14 feet 8 inches, while the side walls extend to approximately 10 feet above the concrete slab. At the gable walls, the 2 by 4 studs are discontinuous. The gable studs are offset toward the exterior and supported on a horizontal wood member, so that the EIFS finish at the gable wall matches the plane of the brick veneer below. This transition occurs approximately at the height of the side walls.

The roof is framed with 2 by 6 rafters that bear onto the top plate of the east and west side walls. The ridge of the gable roof runs along the length of the building in the north-south direction. The ridge is formed by plywood sheathing over the 2 by 6 rafters; there is no continuous ridge member. A 2 by 6 horizontal tie is attached to each rafter at the base of the roof framing (Figure 445). A single triangular plywood gusset plate forms the connection between opposing 2 by 6 rafters at the peak of the gable. The first set of rafters is located approximately 32 inches from the end wall, with the remaining rafters typically spaced at 24 inches on center. The fifth set of rafters, the last visible set of rafters in the storage space, has no horizontal tie member. This is likely due to a conflict with the location of the plywood wall and hatch located approximately one foot south of the rafters. Instead of the horizontal tie, 2 by 4 purlins were noted at this location, extending south from the fifth set of rafters and into the inaccessible attic space at the south half of the building (Figure 446).

FIGURE 445. Typical 2x6 roof framing. Looking south. Photograph by WJE, October 17, 2012.

FIGURE 446. Condition noted at the fifth rafter where 2x4 purlins replace the horizontal tie due to a conflict at the plywood wall hatch. Looking south. Photograph by WJE, October 17, 2012.

The gable wall is braced by a horizontal 2 by 4 joist that spans from the center stud of the gable wall to the top of the horizontal ties, and extending halfway between the third and fourth sets of rafters. Adjacent to the 2 by 4, a 2 by 6 laid flat atop the rafters spans from the first set of rafters to the fourth set of rafters. The 2 by 6 supports a 2 by 4 diagonal brace that extends up to the peak of the gable wall (Figure 447).

FIGURE 447. 2 by 4 gable end wall braced by 2 by 4 and 2 by 6 wood members framing over the roof rafter horizontal ties. Looking north. Photograph by WJE, October 17, 2012.

Condition Assessment.

- Cracking was observed at the northeast and northwest corners of the slab edge, where it is visible above grade (Figure 448). A likely cause of this cracking is differential movement at the interface between the masonry and the concrete. Masonry will expand over time as it absorbs moisture, while concrete undergoes shrinkage, causing a shear force between the two materials that results in cracking of the concrete.

- Cracking was noted at the lintel above the west entrance. A crack, at the left corner of the lintel, propagates vertically along the mortar joint of the soldier course, continues through three courses above the header (including through one brick) and steps over to the mortar joint of the fourth course of the brick terminating beneath the soffit trim. The crack is open and exhibits slight vertical displacement (Figure 449). A second, narrower crack continues horizontally along the mortar joint to the right of the lintel for the length of one brick (Figure 450).

FIGURE 448. Cracking and spalling at northwest corner of concrete slab-on-grade. Looking southeast. Photograph by WJE, October 17, 2012.

FIGURE 449. Vertical step crack propagating from the north corner of the lintel at the west building entrance. Looking east. Photograph by WJE, October 17, 2012.

FIGURE 450. Horizontal crack in the mortar joint to the south of the lintel at the west building entrance. Looking east. Photograph by WJE, October 17, 2012.

Mechanical System Evaluation

Heating, Ventilating and Air Conditioning (HVAC). The comfort station facility was constructed on the site of the original garage for the residence that now serves at the visitor center.

The comfort station was constructed in 1995 and includes both men's and women's ADA-compliant public restrooms on the southern two-thirds of the building. The northern third of the building is groundskeeping, maintenance, storage 101, with separate access by means of two hinged doors located on the north face of the building. The restrooms have separate power-assisted doors at the west side of the comfort station, with access off the main courtyard between the visitor center and the Cassidy House. The middle third of the building is the women's restroom 102. The south third of the building is men's restroom 103.

The attic space above the restrooms is accessible by means of a built-in wooden ladder at the interior of groundskeeping, maintenance, storage 101, with a hinged door at the top of the ladder. This access is used to maintain the HVAC system serving the restroom spaces.

Heating and air conditioning equipment was designed to be installed as part of the construction of the comfort station. The system included a cooling-only fan coil unit with direct expansion (DX) cooling. The fan coil unit was located at the attic space above the restrooms and provided a cooling capacity of 16,000 BTUh. The fan coil unit was connected to a grade-mounted air-cooled heat pump with refrigerant piping installed between the heat pump and attic-located fan coil unit.

As part of the 2011 HVAC upgrades to the Cassidy House and the visitor center, the comfort station received new HVAC equipment as well. The fan coil in the attic was removed and replaced with a new horizontal air handling unit with DX cooling coil. The air handling unit is a Trane Model TMA7A0B30H21SA and has a cooling capacity of 24,000 BTUh. The air handling unit is coupled with a Trane Model BAYEVAC10BK1AA, 10 kW electric heating module (Figure 451).

FIGURE 451. HVAC unit (left side of photo) at attic of the . Photograph by Alvine, May 15, 2013.

The air handling unit cooling coil is coupled with a grade-mounted air cooled condensing unit that replaced the grade-mounted heat pump. The condensing unit is a Trane Model 4TTX6024E1000A. The condensing unit has a SEER rating of 16 (Figure 452).

FIGURE 452. Grade-mounted air-cooled condensing unit located at east side of the comfort station. Photograph by Alvine, May 15, 2013.

Supply air and return air ductwork to and from the horizontal air handling unit is routed above the restrooms in the attic space of the structure (Figure 453). The supply air and return air

ductwork is insulated with 1-1/2 inch fiberglass duct wrap. Supply air to the restrooms is discharged through 24 inch by 24 inch ceiling surface-mounted louvered face supply air diffusers (Figure 454). Return air is drawn back from the restrooms spaces by means of 24 inch by 24 inch ceiling surface-mounted exhaust air grilles (Figure 454).

FIGURE 453. Exhaust ductwork and in-line exhaust fan, located in attic, serving restrooms of the comfort station. Photograph by Alvine, May 15, 2013.

FIGURE 454. Ceiling supply and return air diffuser and grille at women's restroom 102 of the comfort station (men's restroom 103 is similar). Photograph by Alvine, May 15, 2013.

Filter maintenance for the air handling serving the comfort station occurs at the air handling unit itself, as the return air grilles do not appear to be filter grilles.

The comfort station restroom exhaust system is located in the attic above the restrooms and consists of an inline cabinet exhaust fan with inlet and outlet ductwork. The inlet ductwork is connected to 24 inch by 24 inch ceiling surface-mounted exhaust grilles (one per restroom) (Figure 455). The exhaust fan discharge ductwork is routed from the exhaust fan to a roof mounted exhaust hood/cap.

FIGURE 455. Ceiling exhaust air grille at women's restroom 102 of the comfort station (men's restroom 103 grille is similar). Photograph by Alvine, May 15, 2013.

The north groundskeeping, maintenance, storage 101 of the comfort station is not heated or air conditioned.

Temperature Control. Temperature control for the comfort station air handling system is accomplished by use of an electronic, seven-day programmable thermostat. The thermostat is a Trane Model TCONT802AS32DA, and is thermostat is located on the south wall of the men's restroom (Figure 456).

FIGURE 456. HVAC system control thermostat at men's restroom 103. Photograph by Alvine, May 15, 2013.

There does not appear to be any type of control provided for the comfort station exhaust system. The 1995 design documents show the exhaust fan powered through the same circuit that serves the men's restroom water heater. There does not appear to be an occupancy sensor or time clock in place for control of the fan, thus it is assumed that the fan runs continuously.

Code Compliance/Life Expectancy. The air handling system serving the comfort station is a 100 percent recirculating system and does not appear to incorporate any outside air for exhaust air makeup. This puts the restroom spaces under a constant negative pressure and therefore leads to outside air infiltration from the restroom entry doors, which adds additional heating and cooling load to the mechanical HVAC system.

As the comfort station heating and cooling system equipment was installed in 2011 and is only two years old, it should have a life expectancy of another fifteen to twenty years. It is unknown if the exhaust fan serving the restrooms has been replaced since it was installed as part of the 1997 work. If it is original to the renovation work at that time, it is approximately eighteen years old and could be expected to operate for another ten to twelve years, provided the fan does not suffer a motor burnout.

Plumbing Systems and Utilities. The plumbing system for the comfort station remains today very much as it did when construction was undertaken in 1996. Building plans dated 1996 indicate that all of the sanitary sewer and vent system, along with all of the interior potable cold and hot piping, was installed new at the time of the renovation work. It is unknown what sanitary waste and vent material was used for the 1997 work, as no material specifications were included on the design documents. The sanitary waste and vent piping was not visible. It is assumed that the waste and vent piping is composed mainly of poly-vinyl chloride (PVC) waste pipe. It is possible that some cast iron piping exists in the utility chase between the restrooms where wall mounted plumbing fixtures reside, although the pipe material could not be continued.

The potable cold water piping is assumed to be copper pipe with soldered fittings. The type of solder used is unknown. The potable cold water piping is limited to the plumbing chase location therefore is not accessible for observation. The piping that exits the chase to the fixtures is uninsulated. It is assumed that the piping in the utility chase is insulated with fiberglass or closed cell pipe insulation.

Sanitary waste and water piping exposed at the plumbing fixtures is chrome plated.

Plumbing fixtures present at the comfort station includes white, vitreous china, wall-mounted, flush-valve water closets, and wall-mounted lavatories in both the men's and women's restrooms (Figure 457, Figure 458, Figure 459, and Figure 460). There is a single, vitreous china, wall-mounted urinal in the men's restroom (Figure 461). At the exterior of the building is a single-level, ADA-compliant, stainless steel, wall-mounted electric water cooler (FIGURE 462).

FIGURE 457. Wall-mounted flush valve water closet at men's restroom 103. Photograph by Alvine, May 15, 2013.

FIGURE 458. Wall-mounted lavatory at men's restroom 103. Photograph by Alvine, May 15, 2013.

FIGURE 459. Wall-mounted flush valve water closet (typ-2) at women's restroom 102. Photograph by Alvine, May 15, 2013.

FIGURE 460. Wall-mounted lavatory at women's restroom 102. Photograph by Alvine, May 15, 2013.

FIGURE 461. Wall-mounted flush-valve urinal at men's restroom 103. Photograph by Alvine, May 15, 2013.

FIGURE 462. Wall-mounted electric water cooler located at west exterior wall of the comfort station. Photograph by Alvine, May 15, 2013.

A wall-mounted, key-operated, water hydrant with vacuum breaker is located at the west wall of the women's restroom (Figure 463).

FIGURE 463. Wall hydrant located at west exterior wall of the comfort station. Photograph by Alvine, May 15, 2013.

In each of the men's and women's restrooms is a single floor drain with bronze strainer (Figure 464 and Figure 465).

FIGURE 464. Floor drain in men's restroom. Photograph by Alvine, May 15, 2013.

FIGURE 465. Floor drain in women's restroom. Photograph by Alvine, May 15, 2013.

The flush valves at the water closets and urinal are manually operated and are not electronically controlled by a sensor. The lavatory faucets are also manually operated, utilizing a single lever handle for hot and cold water manipulation.

Under each of the restroom lavatories is a wall-mounted, tankless, point of use water heater. Cold potable water is supplied to the water heaters, with a hot water outlet supply line extended and connected to the lavatory faucet (Figure 466 and Figure 467). The water heaters are Eemax Model SP3512 instantaneous water heaters with 120-volt power and an electric kW input of 3.5.

FIGURE 466. Existing 3-kW, tankless, instantaneous water heater located below lavatory of men's restroom. Photograph by Alvine, May 15, 2013.

FIGURE 467. Existing 3-kW, tankless, instantaneous water heater and chase access door located below lavatory of women's restroom. Photograph by Alvine, May 15, 2013.

An access door below the women's restroom lavatory allows access to the water service shut-off valve (refer to Figure 467). At the west wall of the men's restroom, a wall access door allows access to a shut-off valve for the exterior electric water cooler (Figure 468).

FIGURE 468. Wall access door for shut-off valve at west wall of men's restroom. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. There are no code-related issues regarding the plumbing systems serving the comfort station.

The plumbing systems present at the comfort station were installed new at the time of construction, and should continue to serve the facility for the next fifteen to twenty years.

Fire Protection. There is no type of fire protection system currently in place at the comfort station.

Electrical System Evaluation

Electrical Service. The comfort station does not have an electrical service. The electrical branch circuits are connected to the load center in the visitor center.

Interior Wiring. The building is wired with individual electrical conductors installed in electrical non-metallic tubing (ENT). The ENT is not adequately supported and has pulled apart from its connectors in several places. The ENT was not installed with good workmanship (Figure 469 through Figure 471).

FIGURE 469. Incorrectly routed and unsupported conduit in the attic of the comfort station. Photograph by Alvine, May 15, 2013.

FIGURE 470. Unconnected conduit coupling in the attic of the comfort station. Photograph by Alvine, May 15, 2013.

FIGURE 471. Electrical nonmetallic conduit and metal clad cable in the attic of the comfort station. Photograph by Alvine, May 15, 2013.

An outside disconnect switch serves the condensing unit (Figure 472). There is an instantaneous electric water heater in each toilet room (Figure 473).

FIGURE 472. The comfort station condensing unit disconnect switch. Photograph by Alvine, May 15, 2013.

FIGURE 473. Instantaneous electric water heater in toilet room. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. Due to the ENT not being supported adequately and the ENT couplings not connected in several places, the installation of the electrical ENT does not meet the minimum standards of the NEC. The interior wiring should be replaced soon. This is a critical issue.

Grounding. Individual ground wires were installed in the ENT for the equipment grounding system.

Code Compliance/Life Expectancy. The equipment grounding meets the minimum requirement of the NEC. The equipment grounding will be replaced when the interior wiring is replaced.

Devices (Switches and Receptacles). There is an outside switch with a weatherproof cover to control the outside canopy lighting fixture.

There are switches in groundskeeping, maintenance, storage 101, men's restroom 103, and women's restroom 102 to control the lighting.

There is an outside ground fault circuit interrupter (GFCI) receptacle with weatherproof cover plate on the west side of the building. There is another outside GFCI receptacle to serve the electric water cooler.

The storage room does not have a receptacle. Each of the restrooms has a GFCI receptacle.

Code Compliance/Life Expectancy. The device installation meets the minimum requirements of the NEC. The life expectancy is fifteen years from present time.

Lighting. There is an outside recessed lighting fixture in the canopy near the restroom entrance doors. The storage room has two fluorescent strip lights. Each of the restrooms has two fluorescent, 2 foot by 4 foot, two-lamp recessed lighting fixtures. The insulation has been pulled away from the lights in the attic. Each of the restrooms also has a wall light located over the mirror (Figure 474 through Figure 478).

FIGURE 474. Exposed lighting fixture in the attic. Photograph by Alvine, May 15, 2013.

FIGURE 475. Ceiling-mounted lighting fixtures in the toilet room. Photograph by Alvine, May 15, 2013.

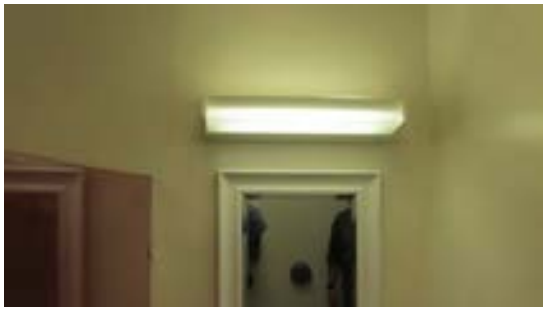


FIGURE 476. Wall-mounted lighting fixture in women's restroom 102. Photograph by Alvine, May 15, 2013.

FIGURE 477. Exterior flood lighting. Photograph by Alvine, May 15, 2013.

FIGURE 478. Storage Room lighting. Photograph by Alvine, May 15, 2013.

Code Compliance/Life Expectancy. The lighting fixtures meet the minimum requirements of the NEC. The life expectancy of the lighting fixtures is fifteen years from present time.

Exit Lights/Emergency Lights. There are no exit lights or emergency lights in the building.

Code Compliance/Life Expectancy. Exit lighting is not required in this building. Providing emergency lighting in the two toilet rooms would be desirable.

Fire Alarm/Intrusion Alarm System. The building does not have a fire alarm/intrusion alarm system.

Code Compliance/Life Expectancy. The building is not required to have a fire alarm/intrusion alarm system. Providing a fire alarm/intrusion alarm system to the building would be desirable.

Communication System. The building does not have a communication system.

Code Compliance/Life Expectancy. The building is not required to have a communication system, nor is one needed.

Hazardous Materials Analysis

Limited Asbestos and Lead-based Paint Survey

In 2010, the National Park Service initiated an Asbestos Assessment Program (AAP) for NPS properties in order to comply with regulations and guidelines as set forth by the United States Environmental Protection Agency (U.S. EPA), Occupational Safety and Health Administration (OSHA) and state and local regulations. The AAP was intended to:

- Provide objective data on the impact of identified asbestos-containing materials (ACM) on future maintenance, renovation, and construction/demolition decisions.
- Form the basis for future asbestos operation and maintenance programs.
- Support the data collection activity under the Washington Area Support Office (WASO) Environmental Cleanup Liability Program in accordance with Federal Accounting Standard Advisory Board Technical Bulletin 2006-1, *Recognition and Measurement of Asbestos-Related Clean-up Costs*.

As part of the development of this Historic Structures Report, and in support of meeting the objectives of the AAP, Terracon Consultants, Inc. (Terracon), of Bryant, Arkansas was engaged as part of the HSR project team to conduct a limited hazardous materials analysis of the visitor center and Cassidy House. The scope of services included an on-site investigation with limited collection of bulk samples of suspect asbestos-containing materials for laboratory analysis. As part of the on-site investigation, Terracon also collected samples of surface coatings for analysis of lead content. The results of the studies are summarized in the Terracon report entitled, *Limited Asbestos and Lead-Based Paint Survey, William Jefferson Clinton Birthplace Home NHS*.[63] A copy of the document can be found in its entirety in Appendix B of this report.

Five samples were of suspected ACM were removed from the visitor center and two samples removed from the Cassidy House. Thirteen samples of paint, surface coatings on building components were removed for analysis, including four from the visitor center and nine from the Cassidy House. Only one exterior sample was taken from the visitor center as the NPS recently conducted testing for lead-based paint in preparation for an upcoming painting project. No exterior samples were taken at the Cassidy House due to the extensive replacement of exterior materials that occurred during 1995–1996 work.

Asbestos-Containing Materials Analysis

The Terracon report notes that, based upon laboratory analysis, the water heater tank liner in the kitchen of the Cassidy House was found to contain asbestos. The analysis did not identify asbestos in the other materials sampled for this study.

Lead-Based Paint Materials Analysis

The Terracon report presents both a summary and laboratory analytical results for the lead-based paint samples taken. The report indicates that eight of the thirteen samples collected at the site exhibited lead concentrations greater than 5,000 parts per million (ppm), the EPA's threshold for lead-based paint. Of the samples with lead concentrations above this limit, test results ranged from 9,898 ppm to 223,700 ppm. Samples identified as containing lead were

63. Terracon Consultants, Inc., Bryant, Arkansas, *Limited Asbestos and Lead-Based Paint Survey, William Jefferson Clinton Birthplace Home NHS, Hope, Arkansas*, November 30, 2012.

found in both the visitor center and the Cassidy House.

In the Cassidy House, lead paint in concentrations greater than 5,000 ppm was documented at the following locations:

- Pantry (room 105), 28,730 ppm
- Kitchen (room 104), ceiling/wall above sink, 59,760 ppm
- China cabinet in hall (room 103), 130,000 ppm
- Northeast bedroom (room), door, 36,050 ppm
- West bedroom (room), door jamb, 9,898 ppm

Receipts found during research for the HSR that indicated that during 1995–1996 work on the Cassidy House, the building was abated of lead-based coatings. However, as indicated by the test results as well as the results of the Finishes Analysis (following section and Appendix C), if abatement was performed at that time, it was not comprehensive.

In the visitor center, lead paint in concentrations greater than 5,000 ppm was documented at the interior and exterior sides of window sash, including the following locations:

- Second floor, interior side of window sash, 223,700 ppm
- First floor, exterior side of window sash, 14,630 ppm
- First floor, interior side of window sash, 38,780 ppm

Finishes Analysis

A laboratory analysis was performed of selected finishes removed from the Cassidy House. The purpose of the analysis was to review the finish campaigns on the samples received in order to determine if finish layers dating to the period of significance are present. The earliest finish layers were noted and where multiple finish layers were observed, the stratigraphy was documented with notes, photomicrographs, and color comparisons with the *Munsell Book of Color*. Refer to Appendix C for more detailed information.

Sample areas were selected to best represent finishes observed and at locations most likely to contain multiple intact coating layers, based on visual observation and review of limited available historic photographs.

Based on the construction date, the original appearance of the wood trim elements was most likely a clear coated finish. Spaces such as the kitchen and pantry may have originally had painted trim, but in 1917 paint was a less common finish for interior wood elements. It is likely that the interior wood trim elements were refinished, possibly multiple times, between construction of the house and the period of significance. Photographs from the late 1940s show the living room with a light painted baseboard and window trim, while photographs from the 1990s show the same space with dark brown painted trim likely originating from the 1970s or 1980s. If present, paint layers dating from the period of significance are contained between the clear coat and the brown paint layer. (It should be noted that the available historic photographs show only the wood baseboards, crown molding, and window trim as well as the window sash. All of these elements were replaced with new material in 1995–1996. All paint samples included in this study were removed from interior features that are not

directly visible in the available historic photographs of the house interior. However, it is assumed that a consistent color would have been used for all painted wood trim and doors within a room during the period of significance.)

Of the samples reviewed, one sample from the bathroom (203) includes a portion of a clear coating. The paint layers above the coating are shades of cream and white. There is no dark brown layer present as is typical of the trim at the first floor.

Observations from the samples, paired with the 1940s photographic documentation, indicate that during the period of significance the interior doors and trim were painted a shade of off-white or cream.

It should be noted that the finding noted above is based on limited sampling and analysis conducted for this study. Further sampling and analysis is recommended of wood features indicated in the photographic documentation from the period of significance, to provide additional information on finishes during this period.

The following samples were received for analysis:

- Sample 1 – (room 202, door 204) northeast bedroom interior of door. Based on small number of layers present, no historic finishes likely remain.
- Sample 2 – (room 202, door 204) northeast bedroom door jamb. Three to four finish layers total are present. The earliest layer is tan in color closely equivalent to Munsell 7.5YR6/2.
- Sample 3 – (room 203, door 205) bathroom door. A clear coat (likely shellac) is potentially present at base of the sample, covered with five successive layers of white/off-white and tan colors. Tan color above off-white is closely equivalent to Munsell 7.5YR6/2. The color dating to the period of significance is likely one of the white or off-white colors.
- Sample 4 – (room 205, door 207) southeast bedroom door. Four finish layers total are present. A tan layer is at the base, covered by three off-white layers.
- Sample 5 – (room 204, door 201) west bedroom door. Approximately six layers are present. Bottom layer is light grey topped with green closely equivalent to Munsell 5G8/4, off-white, brown closely equivalent to Munsell 2.5YR3/6, and multiple layers of white.
- Sample 6 – (room 101) Board at base of newel post in living room. This fragmentary sample has light tan, white, and brown paint layers.
- Sample 7 – (room 102, door 102) Dining room door jamb. Approximately nine layers of white, off-white, light tan closely equivalent to Munsell 10YR8/2, and brown were observed. The white or off-white layers may date to the period of significance, although an earlier clear coat is not present in this sample.
- Sample 8 – (room 101, door 102) French door, living room. This sample debonded from epoxy during preparation and could not be analyzed.
- Sample 9 – (room 104) kitchen wall. Based on small number of layers present, no historic finishes likely remain.
- Sample 10 – (room 105, door 103) pantry door. A portion of the sample includes wood substrate and five layers of white and light tan. A separate fragment includes

approximately eight layers including white/off-white, brown closely equivalent to Munsell 7.5R2/2, red closely equivalent to Munsell 5R2/6, and light tan closely equivalent to Munsell 10YR8/2. The white or off-white layers may date to the period of significance, although an earlier clear coat is not present in this sample.

- Sample 11 – (window above door 101) Exterior of transom window over front door. Approximately nine finish layers are present in the sample, including multiple layers of off-white and a green layer. The green is closely equivalent to Munsell 5G2/4. This color green is darker than the existing green trim color. Based on Virginia Kelley's recollection that the house had exterior green trim during the years in which she lived there, the green shown in the sample may represented the exterior trim color during the period of significance.

Wood Species Identification

The species was identification for selected wood samples removed from various structural members at the Cassidy House. Refer to Appendix D for more detailed information.

Samples were removed from the southeast hip rafter, southwest corner roof rafter, and roof decking. All of the specimens were observed to include similar cellular structures. Based on our observations, the wood specimens are characteristic of longleaf pine (*Pinus palustris*), part of the group of southern yellow pines. Longleaf pine is native to the southeastern United States and is rated as moderately rot resistant. Longleaf pine was commonly used for construction due to its availability and strength to weight ratio.

Building Code and Life Safety Review

The following code review pertains to the Cassidy House and the visitor center buildings. Evaluation of code deficiencies related to the site is addressed in the Cultural Landscape Report.

The 2009 edition of the *International Building Code* (IBC) and the 1997 edition of the NFPA 101 *Life Safety Code* (LSC) have been used in the review of the Cassidy House and the visitor center to identify building code and life safety deficiencies.

It is important to note that the *International Building Code,* Chapter 34, states that the provisions of the IBC relating to the construction, repair, alteration, addition, restoration and movement of structures and change of occupancy shall not be mandatory for historic buildings where such buildings are judged by the Authority Having Jurisdiction (AHJ) to not constitute a distinct life safety hazard. As such, the AHJ can allow the continued use of existing stairs, openings, and other features in historic buildings where compliance with the code would be damaging to historic features. In the case of the Cassidy House and the visitor center, the AHJ (which in the case of NPS-owned buildings is NPS) ultimately has the authority and discretion to utilize these code provisions regarding historic character to minimize impact on the structure.

In a similar way, the LSC also outlines special provisions for addressing life safety code deficiencies in existing buildings. LSC Sections 4.6.2 and 4.6.3 allow the AHJ to make modifications to applicable LSC requirements where it is evident that a reasonable degree of safety is still provided.

Building Code (IBC)

The following preliminary list of building code deficiencies has been identified. The specific code sections associated with each item are noted in parentheses following each item.

Existing Occupancy Types and Occupant Load Summary. Both the Cassidy House and the visitor center are classified as B – Business occupancy. (Note: any A-3 – Assembly use in either building is small enough that it is considered to be B –Business occupancy, per IBC 303.1.1).

The occupant load for each building is determined by the building code based on the occupancy type and in the case of business occupancies is calculated as 100 square feet per occupant. Therefore, the occupant load for the Cassidy House is fifteen people. The occupant load for the visitor center is twenty-seven people (per IBC table 1004.1).

Construction Type. Both buildings are considered Type “V-B”: Non-Sprinklered, Combustible Construction.

Per IBC Section 903, fire sprinklers are not required in these buildings; however, the installation of a sprinkler system is recommended to protect the property from damage due to fire and would be an

improvement implemented at the discretion of NPS.

Building Height.

- Cassidy House, Actual: Two stories and approximately 25 feet 0 inches.
- Visitor Center, Actual: Two stories and approximately 22 feet 8 inches.
- Allowable building height for Type V-B construction: two stories and 40 feet 0 inches (IBC table 503).

Floor Area.

- Cassidy House, First Level, Actual: 910 square feet. (Per the IBC definition of floor area, this includes the 175 square feet of area covered by the exterior porch roof.)
- Cassidy House, Second Level, Actual: 695 square feet
- Visitor Center, First Level, Actual: 1,940 square feet. (Per the IBC definition of floor area, this includes the 100 square feet of area covered by the exterior porch roof.)
- Visitor Center, Second Level, Actual: 781 square feet
- Allowable: The actual floor areas of the Cassidy House and the visitor center are well within the basic allowable floor area requirements of 9,000 square feet per floor. (per IBC table 503)

Mixed Occupancy Design Requirements. The buildings, as they are currently used, contain one occupancy type, B – Business. As such, no interior occupancy separations are required for either building. Should future modifications to either building include a mix of A-3 – Assembly and B –Business uses, the buildings could still easily meet the IBC non-separated use requirements of Section 508.3.2 that would allow the uses to exist without any rated separations between them.

Egress from Second Level. Normally, a secondary means of egress is required from a second floor level of a building. According to IBC Table 1015.1, second floor levels designated as B occupancy with less than 800 square feet or an occupancy load of eight persons or less do not require a secondary means of egress. Both the Cassidy House and the visitor center second levels meet these criteria and therefore do not require a second means of egress. (Note: Tour group size in the Cassidy House will be limited to eight persons on the second level.) The existing stairs in the Cassidy House and the visitor center are not required to be enclosed, as the occupant load of the second levels is less than ten persons.

Stairs and Handrails. The stairs leading to the second level of each building are not required to be an accessible means of egress, as the second levels are not required to be accessible. The minimum width of non-accessible exit stairs is 36 inches, therefore the stair widths of the Cassidy House and the visitor center are in compliance with code requirements (per IBC 1009.1.1); both sets of stairs are 36 inches or greater in width and serve an occupant load that is less than fifty persons.

The stairs of both the Cassidy House and the visitor center do not meet the code requirements with regard to tread width (11 inches in width minimum) and riser height (7 inches maximum). The Cassidy House stair treads are 10-1/2 inches in width with a riser height of 8 inches. The visitor center stair treads are 8 inches in width with a riser height of 9-1/2 inches.

Handrails for the stairs leading to the second level of both the Cassidy House and the visitor center comply with code requirements, as there are two handrails on either side of the stairs

mounted at 30 inches above the nosing of the treads.

Life Safety Code Deficiencies

The following preliminary list of life safety code deficiencies has been identified. This life safety code review utilized a fire protection survey commissioned by NPS in 2011, in conjunction with the current code analysis conducted by the HSR team.[64] The specific code sections associated with each item are noted and placed in parentheses following each item.

The buildings do not currently contain adequate means for early fire detection or emergency annunciation. Hard wired smoke detectors are required in all rooms of both buildings (NFPA 101, Section 7.6.2.10). In addition, fire horn/strobes are required to be connected to the detection system in order to alert occupants of a potential fire emergency (NFPA 101, Section 7.6.3). The Cassidy House will require the installation of two horns/strobes, one upstairs and one downstairs, for life safety and early notification. The visitor center will require installation of three horns/strobes on the first floor, one upstairs, and a strobe-only notification in the superintendent's office.

Currently, the visitor center has exit signage directing occupants to the main point of egress. One exit sign is located in Corridor 105 and one exit sign in Reception 102. Exit signage is not required on the Cassidy House, as the main exit is clearly identifiable as a point of exit (NFPA 101, Section 9.2.3.4). The second level of the visitor center is not currently occupied. However, in the event that this area is occupied in the future, the installation of an exit sign and emergency lighting will be required.

Per NFPA 101, Section 5.2.1.4.2, exit doors are not required to swing in the direction of travel when serving an occupant load of less than fifty. Therefore the current arrangement of the front door of the Cassidy House (door 101) can remain as an in-swinging door. In addition, per NFPA 101, Section 9.2.2.2.3, panic hardware is not required, as the occupant load of both the Cassidy House and the visitor center is below 100 occupants. Signage will be required on or adjacent to the door that reads "THIS DOOR TO REMAIN OPEN WHEN THE BUILDING IS OCCUPIED."

Exposed Polystyrene

The walls and ceilings of east storage 202 and west storage 203 are exposed polystyrene insulation, with no finish. If the polystyrene insulation meets Section 2603.3 of the International Building Code, with a flame spread index of not more than 75 and a smoke developed index of not more than 450, it may be left in place and exposed. If these limits are exceeded, the polystyrene must be covered or removed.

64. Kip Schwabe, *William Jefferson Clinton Birthplace: Clinton History Exhibits Center, Hope, AR: Fire Protection Survey* (National Park Service, 2011).

Accessibility Review

The 2004 edition of the *Architectural Barriers Act Accessibility Standards* (ABAAS), the 2010 edition of the Americans with Disabilities Act Accessible Guidelines (ADAAG), and the 2009 International Building Code (IBC) have been used in the accessibility review of the existing Cassidy House and visitor center.

National Park Service Management Policies (2006), Chapter 5 – Cultural Resource Management, Section 5.3.2 states:

> The National Park Service will provide persons with disabilities the highest feasible level of physical access to historic properties that is reasonable, consistent with the preservation of each property's significant historical features. However, if it is determined that modification of particular features would impair a property's integrity and character in terms of the Advisory Council's regulations at 36 CFR 800.9, such modifications will not be made.

Accessibility Deficiencies

The following preliminary list of accessibility deficiencies has been identified. The items cited below pertain to the existing configuration of the buildings and site circulation. The specific code sections associated with each item are noted and placed in parentheses following each item.

Cassidy House

An accessible entrance to the property is present on the west side of the house. However, the ramp is not identified as the accessible entrance and is not provided with the appropriate signage (ADAAG 4.1.2(7)(c)). In addition, the ramp is raised above the sidewalk more than the maximum vertical offset of 1/4 to 1/2 inch (ADAAG 4.5.2). Similarly, the entrance threshold located at the front door (door 101) is raised above the finish floor approximately 1 inch. A ramp will be required to mitigate this offset in order to comply with accessibility requirements. The Pantry (room 105) is not accessible as the pantry door (door 103) is less than 32 inches wide. Similarly, the back porch (room 106) is not accessible due to a lack of clearance at door 104. No other deficiencies were noted.

The second level of the Cassidy House is not required to be accessible by an elevator, as the gross square footage of the second level is less than 3,000 square feet (IBC 1104.4.1).

Visitor Center

An accessible entrance to the property is present on the east side of the house. However, the ramp is not identified as the accessible entrance and is not signed with the appropriate signage (ADAAG 4.1.2(7)(c)). In addition, the ramp currently has a guardrail but the guardrail does not have a handrail that meets accessibility requirements. Per the guidelines, accessible ramps are required to have handrails on both sides of the ramp with proper handrail extensions of 12 inches (ADAAG 4.8.5(1)). The entrance threshold located at the front door (door 102) is raised above the finish floor approximately 1 inch. A ramp will be required to mitigate this offset in order to comply with accessibility requirements.

According to accessibility guidelines, clear widths of door openings are required to be 32 inches minimum. Due to insufficient clear width of door openings, the following doors in the visitor center do not meet accessibility requirements: door 103, 106, 107 and 108. Also, the superintendent's office located in the visitor center is not universally accessible as configured, as the entry door does not have the proper maneuvering clearance of 12 inches on the push side (ADAAG 4.13.6). No other deficiencies were observed.

The second level of the visitor center is not required to be accessible by an elevator, as the gross square footage of the second level is less than 3,000 square feet (IBC 1104.4.1).

Coordination with the Cultural Landscape Treatment Recommendations

As the preferred CLR treatment recommendation is implemented, accessible routes to the Cassidy House and visitor center will need to be coordinated to assure that extant routes are maintained or improvements provided per the treatment plan. These measures would include providing an improved accessible entrance to the visitor center (either via ramp at the current location on the south side of the east porch, or by modifying the east porch to provide an accessible entrance path at the north side), and maintaining an accessible entrance to the Cassidy House with a new ramp that is compatible with the rehabilitated grounds and porches.

Significance and Integrity

Evaluation of Significance

Significance Criteria

The Criteria for Evaluation for listing in the National Register of Historic Places state:

> The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B. That are associated with the lives of persons significant in our past; or
>
> C. That 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; or
>
> D. That has yielded, or may be likely to yield, information important in prehistory or history.

Criteria Considerations

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties *will qualify* if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or

b. A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

c. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life; or

d. A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

e. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

f. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or

g. A property achieving significance within the past 50 years if it is of exceptional importance.[65]

National Register Significance Evaluation

The Cassidy House at President William Jefferson Clinton Birthplace Home National Historic Site is significant under National Register Criterion B at a national level for its association with the life of a person significant in our past: President Bill Clinton.

The Cassidy House was listed in the National Register of Historic Places as the "Bill Clinton Birthplace" on May 19, 1994.[66] The nomination lists one contributing building, the house at 117 South Hervey Street. The nomination notes, "It is eligible under Criterion B with national significance by virtue of its status as the birthplace of President Bill Clinton."[67] The nomination also cites Criteria Consideration c, which states, "A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his or her productive life," and Criteria Consideration g, "A property achieving significance within the past 50 years if it is of exceptional importance."[68]

The area of significance is noted in the nomination as Politics/Government, and the period of significance as 1946–1950, with the specific date of 1946 (the year of Clinton's birth) noted. Further discussion of the period of significance is provided below.

In development of the *Foundation Document* and the *Long-Range Interpretive Plan* for the National Historic Site, the NPS noted that the site is significant as a unit of the NPS for the following reasons:

- In this home on South Hervey Street, William Jefferson "Bill" Clinton spent the first four years of his life (1946 to 1950), and he continued to visit until 1957 [1956; see note below], when his family sold the home after his grandfather's death.
- Here in Hope, Arkansas, Clinton developed a broad view about race relations, social justice, and the inherent worth of each human being that helped shape his lifelong career in public service.
- In this home, a young Bill Clinton was surrounded by loving, supportive relationships with his mother, his grandparents, and lifelong friends. Friendships started here in Hope extended into his service as Governor of Arkansas and as our nation's 42nd president. Mixed with the happiness of young Clinton's life in this place was the sad knowledge of the loss of a father he never knew.

65. *Code of Federal Regulations, Title 36, Part 60,* "The National Register Criteria for Evaluation."
66. National Register Nomination documentation, Bill Clinton Birthplace, 117 South Hervey Street, Hope, Arkansas. Prepared by Kenneth Story, Architectural Historian, Arkansas Historic Preservation Program, Little Rock, Arkansas, March 29, 1994. Entered in the National Register, May 19, 1994.
67. This statement in the nomination, as well as the name of the foundation that initially acquired the property and the name of the National Historic Site, conveys the idea that Clinton was born in the house. Although this was the house in which Virginia Kelley resided with her newborn son after his birth, Clinton was born in Julia Chester Hospital in Hope. The hospital has since been demolished.
68. If the National Register nomination is updated in future, further consideration may be given to whether Criteria Consideration c is relevant or necessary, as there are certainly other properties associated with Clinton's productive life. Criteria Consideration g may be eliminated from discussion as the property has now reached more than fifty years of age.

- This is the place where Clinton experienced the post-World War II era of expanding affluence and optimism for the future that nurtured his convictions about the value of public service and served as a springboard to the governorship, the White House, and his later work around the globe to improve the lives of others.[69]

The NPS significance assessment for the *Long-Range Interpretive Plan* also noted the following quotation from President Clinton: "In many ways, I know that all I am or ever will be came from here . . . a place and a time where . . . kids like me could dream of being part of something bigger than themselves" (President Bill Clinton, March 12, 1999).

The *Long-Range Interpretive Plan* states that the park will work with the NPS Midwest Regional Office (MWRO) to determine if a National Historic Landmark (NHL) nomination should be pursued after completing a boundary assessment for the property. Current NPS policy suggests that nominating historic units of the national park system as NHLs is somewhat redundant because these sites must meet NHL criteria in order to be established and because the park designation recognizes their national significance. The NPS policy states:

> Historic and cultural units of the national park system are nationally significant by virtue of their authorizing legislation or presidential proclamation. National historic landmark designations are appropriate for park cultural resources that meet national historic landmark criteria if the national significance of those resources is not adequately recognized in the park's authorizing legislation or presidential proclamation. Cultural parks may warrant landmark designation as parts of larger areas encompassing resources associated with their primary themes. Modified National Register forms will be prepared and submitted to nominate such resources for landmark designation by the Secretary of the Interior.[70]

Period of Significance

The Cassidy House at President William Jefferson Clinton Birthplace Home National Historic Site is significant through its association with the life of President Clinton, and specifically with the time he spent as a resident of the house in his early years, and as a visitor to the house as a youth.

President Clinton's association with the Cassidy House is tied to the ownership and occupancy of the house by his maternal grandparents, Eldridge and Edith Cassidy; Clinton's early life there with his mother, Virginia Cassidy Blythe, and his grandparents after the death of Clinton's father, William Jefferson Blythe II; and his visits to his grandparents after Clinton and his mother, with her second husband Roger Clinton, moved to another house in Hope, and later to Hot Springs, Arkansas. Therefore, for purposes of this HSR study, the period of significance of the house is defined as 1946–1956, beginning with Bill Clinton's life in the house in 1946, and

69. *Long-Range Interpretive Plan: President William Jefferson Clinton Birthplace Home National Historic Site*, November 2012. Prepared by President William Jefferson Clinton Birthplace Home National Historic Site, the NPS Midwest Regional Office, and Harpers Ferry Center Interpretive Planning, U.S. Department of the Interior, National Park Service. See also *President William Jefferson Clinton Birthplace Home National Historic Site Foundation Document,* March 2013. Note that the Long-Range Interpretive Plan identified an end date for the period of significance of 1957 based on the date of Eldridge Cassidy's death; however, research conducted for this study has confirmed that the Cassidy family sold the house in 1956. Therefore, as discussed with NPS, the HSR recommends an end date for the period of significance of 1956.

70. NPS Management Policies, 5.1.3.2.2, National Historic Landmark Designation (2006).

ending with the sale of the house by the Cassidy family in 1956. As noted above, the National Register nomination cites a period of significance of 1946–1950, the years in which the young Billy Blythe lived in the house. Given his continuing association and frequent visits to the house while his grandparents resided there, extending the period of significance to 1956 is recommended.

National Register Boundaries

The National Register nomination does not include a map or graphic showing the designated boundaries; rather, the boundaries are described in a narrative, based on round-number dimensions measured from the Cassidy House and the street edge. When viewed graphically, some possibly unintentional details of the existing National Register boundary suggest that revisions to the boundary should be considered if the nomination is updated in the future. The existing National Register boundaries, together with the national historic site property boundaries, are shown in Figure 479. Note that, as drawn following the nomination boundary description, the National Register boundary incorporates a portion of the Vincent Foster House and its site; however, the nomination as a whole neither includes nor excludes the Vincent Foster property as a feature of the site.[71] Similarly, the boundary includes a portion of the former residential property to the north of the Cassidy House, but excludes part of that property (and part of the currently existing memorial garden). Also, the boundary extends into the public right-of-way at the alley north of the Cassidy House and along Hervey Street to encompass the retaining wall, grass-planted shoulder, and pedestrian sidewalk to the edge of the street, all of which are beyond the property line of the national historic site.

Based on this evaluation of significance, as well as the significance assessment conducted for the CLR/EA currently in preparation for the national historic site, a revised National Register boundary encompassing the house and only its immediate legal parcel as its setting is recommended. The revised boundaries would include the house, its immediate setting, the remaining front yard (reduced from its original size by the widening of Hervey Street in 1982), and the play yard to the south. The recommended boundary to the north would follow the national historic site line along the south side of the former alley. The recommended revised National Register boundaries are shown in Figure 479.

(Refer to the discussion of integrity below, and to the CLR/EA, for further discussion of setting, context, and related issues.)

71. The nomination does not mention the Vincent Foster family property at all and does not indicate that this was the home of Clinton's lifelong friend Vincent "Vince" Foster, Jr.

UNION PACIFIC RAILROAD

Comfort Station

Visitor Center

Memorial Garden

WEST DIVISION STREET

Fields-Barron House

METAL PERIMETER FENCE

FLAGPOLE

CAUTION LIGHT

WICL Boundary

NRN Boundary

ALLEY

ENTRANCE GATE

RAMPS

PARKING LOT

Cassidy House

Play Yard

METAL PERIMETER FENCE

WOOD AND WIRE FENCE

SOUTH HERVEY STREET

PINE STREET

Foster House

SECOND STREET

50 0 50 100 1" = 50'

SCALE OF FEET

DESIGNED:

DADD

TECH. REVIEW:

DATE:

SUB SHEET NO.

Existing Conditions Plan
Draft 01.17.2013
Scale: 1" = 50'

DRAWING NO.

PKG. NO.

SHEET

OF

Character-Defining Features

The historic nature of significant buildings and structures is defined as their character, which is embodied in their identifying physical features. Character-defining features can include the shape of a building; its materials, craftsmanship, interior spaces, and features; and the different components of its surroundings.[72] One of the keys to establishing a preservation plan for any building is to identify the character-defining features that contribute to the building's significance. Identifying these features will support future planning and preservation efforts.

The narrative below describes the various character-defining features of the buildings and assesses their significance. This section is accompanied by a table summarizing all features of the buildings, their dates of origin (if known) and whether they were present during the period of significance, and commentary on whether each feature is character-defining.

The character-defining features of the Cassidy House are identified below based on historical research, development of the building chronology, technical evaluation of building features, and visual documentation of existing conditions. The illustrations of character-defining features presented include exterior features, interior spaces and features, and site elements.. All of the features identified contribute to the proposed 1946–1956 period of significance.

As noted above, the visitor center is important as a context building for the Cassidy House, was present during the period of significance, and contributes to the setting of the Cassidy House. Research to date has not revealed any direct connection of the visitor center property with President Clinton during the period of significance, nor has research conducted for this study indicated that the visitor center building has individual significance unrelated to President Clinton. Further research that is beyond the scope of this study would be required to determine whether the visitor center is significant, for example, at a local or state level as part of a neighborhood historic district, as an example of Craftsman style architecture in Hope, etc. However, for purposes of this study and given the importance of the building to the Cassidy House environs, character-defining features of the visitor center exterior are identified below. Character-defining features of the interior are also identified for reference by the NPS in planning further modifications to the building for continuing adaptive reuse as a visitor and exhibit facility and park offices.

Additional research beyond the scope of this study would also be required to assess fully the significance of the other context buildings present within viewsheds of the Cassidy House but outside the boundaries of the national historic site. This issue is further discussed in the Cultural Landscape Report currently in development for President William Jefferson Clinton Birthplace Home National Historic Site.

Cassidy House

Exterior.

- The house footprint has remained intact from the period of significance, with the exception of the enclosure of the original engaged back porch. The back porch originally contained screened openings to the north and east, which were infilled with wall construction at some point after the period of significance and before the 1995

72. Lee H. Nelson, FAIA, *Preservation Brief 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character* (Washington, D.C.: National Park Service, Technical Preservation Services, 1988).

exterior work. The exterior trim, casework, siding, and corner boards are all replacement materials from the 1995 exterior renovation. Based on review of archival documentation, these materials do not match the historic materials in configuration or profile, and are therefore not considered part of the character defining features. The corner boards are a new feature added in 1995 that never existed historically, and the historic wood apron trim at the base of the walls was omitted. The exterior paint colors—white with green trim—were selected based on Virginia Kelley's recollection of the color scheme when she lived in the house. The footprint and scale of the building represent the period of significance and the configuration of the residence at that time.

- The full-width projecting front porch is a primary feature of the main entrance facade of the house. Two tapered square columns resting on brick bases support the porch roof. The columns are located at the outside corners of the porch. Although the porch was screened in during the period of significance and the existing porch is a reconstruction dating to 1995, in its present configuration it remains an important feature of the residence. Historically, the tapered wood portions of the corner piers were clad with wood clapboard siding.

- The window openings, size, shape, and configuration throughout the residence are generally consistent with the period of significance. All of the windows, except for the front door transom, were replaced as part of the 1995 work. The muntin patterns, sizes, and grouping of the new units were based on the original windows; however, the existing muntins are much heavier than the historic profile, as compared to the profiles in historic photographs. The historic character of the windows has been diminished through these alterations.

- A whole-house fan was a significant feature of the residence. The fan was provided to maintain a comfortable temperature during the hot summer months and to circulate air through the house. The fan and its wood-framed casing and hood projected from the north end of the second floor hall. These features were removed as part of the 1995 exterior work; however, the opening remains and a new wood-framed casing with hood, similar to the original in configuration, was constructed. The fan opening with hood is a significant design feature of the house dating to the period of significance.

- The pyramidal roof with dormer is typical of many houses constructed in this style and from this period. The shape and structure of the existing roof retain the configuration of the house during the period of significance, although some rafter tails were replaced as part of the 1995 exterior work. Also important to the configuration of the roof is the projecting central dormer on the main facade. The roof contained a brick chimney projecting just east of the center of the roof. The chimney was removed above the roof line after the period of significance but before the 1995 work.

- The above-grade portion of the brick foundation was reconstructed as part of the 1995 exterior work. The existing exposed brick matches the material and general appearance of the original foundation. However, a different crawl space vent design was used as compared to archival documentation of the original vent.

- The front door was replaced sometime after the period of significance and before the 1995 work. The existing front door

(door 101) does not match the front door that was present during the period of significance, according to photographs from the period of significance. It was located at the back porch of the house prior to the 1995 work (door location 105), but this door was not present at the back porch during the period of significance (refer to Figure 16 and Figure 23 in the History chapter). It is not known if this door was part of the house at another exterior location during the period of significance.

Interior.

- The floor plan of the house remains similar to that present during the period of significance. The configuration of the large full-width front living room with the dining room, kitchen, and china cupboard hall on the first floor, and the organization of the second floor—with the large west bedroom that was Virginia's, the southeast bedroom, the small northeast bedroom for young Billy, and the bathroom—continue to define the character of the residence. The primary difference in floor plan between the present-day configuration and the period of significance is that the back porch screened openings were enclosed and walled over, and a mechanical closet, accessed from the exterior on the east side of the house, was created within the south end of the porch. The door from the hall to the porch was filled in.

- The stair leading from the living room on the first floor to the second floor hallway, along with its newel post and balustrade, are significant and well-preserved original features of the house. The staircase materials are intact from the period of significance.

- Wood floors throughout the interior are mostly intact from the period of significance. Some of the wood in the second floor bedroom belonging to Virginia Kelley was damaged during the fire in 1992 and was patched and repaired during the 1996 work. Also, new wood floors were installed in the hall (room 103) and back porch (room 106) during the 1996 work. The areas of repair and replacement are clearly distinguishable from the wood floors that date to the period of significance.

- The wall base throughout the house was replaced as part of the 1996 interior work, with the exception of the base at the stair to the second floor, which was not replaced and dates from the period of significance. Although the replacement wall base is not in itself significant, the presence, profile, and finish of the wood base is an appropriate representation of the historic wood base.

- Door and window trim throughout the interior was replaced during the 1996 interior work. Although the profile is similar to that from the period of significance, the quality of the wood is poor, with knots and other imperfections visible through the paint coating, and the installation includes ill-matched transitions at joinery. Crown molding trim was replaced during the 1996 work and does not match the trim present during the period of significance.

- Certain wall finishes throughout the interior are character-defining features of the house. Beadboard wall and ceiling cladding in the kitchen, hallway, back porch, and the northeast bedroom were present during the period of significance. Some of the beadboard was replaced during the 1996 work, for example at the walls and ceiling of the northeast bedroom and the ceiling of the hallway. Although the replacement beadboard is not in itself significant, the presence, profile, and finish of the beadboard is an appropriate representation

of the historic wall and ceiling finishes in these rooms.

- Wallpaper is present throughout the house in all rooms that do not contain a beadboard finish. Research and physical evidence indicate that the historic wallpaper was applied directly over a cotton fabric base, which was applied directly over the horizontal tongue and groove wood plank substrate of the walls and ceilings. As part of the 1996 work, all layers of wallpaper and fabric were removed from the walls and ceilings, and gypsum board was installed over the wood plank substrate. The added thickness of the gypsum board has altered the profile of the walls as they existed during the period of significance and required filler strips to be added at many openings to adjust window and door trim for this extra wall thickness. The new gypsum board was covered with wallpaper as part of the 1996 work and remains as the finish today. Although the 1996 paper is not in itself significant, the presence of wallpaper is an appropriate representation of the historic wall finishes.

- The china cabinet located between the dining room and the kitchen on the first floor was present during the period of significance. The hinges have been changed and there have been some modifications to the lower doors; however, it is unclear whether these alterations occurred before, during, or after the period of significance. The configuration of the cabinet remains unchanged from the period of significance.

Visitor Center

The visitor center provides a lobby/welcome area, office space, interpretive/exhibit space, and the gift shop for the site. The visitor center was built as a single family residence. Stylistically, it retains decorative features and ornamental elements of a Craftsman-style bungalow. It is one-and-one-half stories in height with brick foundation and walls and stucco gable ends. The side gable roofline has overhanging eaves with decorative brackets and exposed purlins. The simple, generally rectangular floor plan retains a central entrance sheltered by a projecting gabled porch supported by substantial brick columns matching the body of the residence. Fenestration throughout the house consists of grouped units with multi-light and single pane combinations. For example, the windows at the front of the house (north facade) in the lobby and exhibit rooms consist of vertical divided lights over a single pane (typically three-over-one), while windows at the upper level are twelve-over-one double-hung sashes. A screened porch at the east facade was enclosed as part of the 1997 work to accommodate accessible entry to the building from the parking area and the comfort station. The enclosure has insulated single pane glass windows and a ramp leading toward the comfort station and parking lot. A south-projecting breakfast room, an extension of the original kitchen, was removed as part of the 1997 work. As noted above, although the visitor center contributes to the character of the site as a whole, it is not considered an individually eligible National Register resource.

Exterior.

- The brick walls of the visitor center, as well as the stucco gable ends, are character-defining features.

- The windows, including the opening size, shape, dimensions, profiles, materials, and configuration are typically original to the house. At least one of the original window units has been replaced with glass block (window 109), and several new windows have been added to enclose a former porch (windows 102 through 105); however, the majority of the windows at both floors are original to the house.

- The gabled roof with dormers and projecting eaves, brackets, and purlins is a character-defining feature, including the roof configuration as well as its ornamental elements. The north and south gabled roof dormers, along with their ornamental purlins and brackets, break up the form of the roof and provide additional light and space to the second story space. These features are original to the building. All chimneys were removed above the roof line prior to the 1997 work.

- The projecting central brick front porch with its gabled roof and square brick columns and knee walls emphasizes the central front entrance to the building. This feature is original to the building and contributes to the architectural style. As part of the historic main entrance to the property, it is a character-defining feature.

- The entry space (room 101), originally a screen porch located east of the reception room, is original to the construction of the house. The brick piers of the corners of the room and roof detailing are character defining features of the building.

- The multi-light front door with side lights and transom windows is original to the building. The configuration of the glass and door are Craftsman style details.

Interior.

- The floor plan was altered as part of the 1997 work. The south projecting breakfast room was removed, and the kitchen cabinets were removed to provide office space (room 106). Several doors were removed and some openings were widened to permit circulation flow in the public spaces. The corridor (room 105) on the main floor was elongated to provide access to the staff office. However, the layout of the floor plan in the public spaces has not been altered.

- The wood floors in the reception area, gift shop, and exhibit space are original to the building. Most of the flooring throughout the remainder of the main floor of the visitor center has been covered with carpeting.

- The wood base, door, and window trim in the lobby and exhibit rooms are original to the building.

- The fireplaces in the reception area (room 102) and exhibit space (room 103) are original features.

- The stair leading from the first to the second floor is in its original location and retains its original materials, including the wood painted newel post, rail, and balusters.

Comfort Station

The detached comfort station on the site, which houses public restrooms and a small storage area, is relatively new construction dating to 1997. Although it is a non-contributing feature of the site, it is not intrusive to the overall setting and is sited where a garage once stood when the visitor center building was used as a private residence.

Analysis of Existing Features

Feature	Date of Extant Material	Historic	Comment
Cassidy House			
Exterior			
Brick masonry foundation including ventilation grilles	1995	No	Vents do not match historic design
Wood siding	1995	No	Does not match historic profile
Wood trim: corner boards	1995	No	Feature was not present historically
Wood trim: skirt board and cap	Not extant	—	Missing
Wood trim: window trim	1995	No	Does not match historic profile
Wood trim: eave and fascia	1995	No	
Wood windows (except front door transom)	1995	No	Twelve-over-one pattern is historic, but profiles and other details do not match historic window sash
Roof: asphalt shingles	2011	No	Material present during period of significance is not documented; Sanborn maps indicate that original 1917 roof covering was wood shingles
Roof: dormer	1995	?	Structure is original, but cladding, trim, flashing and four-light window replaced in 1995
Roof: brick masonry chimney	Not extant	—	Missing; removed below roof line prior to 1990s
Roof: metal flue	1996	No	
Front porch: front door	?	?	Salvaged historic door in a non-historic location
Front porch: front door hardware	1995	No	
Front porch: front door transom	1917	Yes	Intact original feature
Front porch: floor boards and skirt board	1995	No	
Front porch: screen enclosure and screen door	Not extant	—	Missing
Front porch: masonry piers	1995	No	
Front porch: upper wood piers	1995	No	Design does not match historic piers
Front porch: south concrete steps	Before 1946	Yes	Intact feature present during period of significance
Front porch: wood accessibility ramp and railings at north side	1996–1997	No	Provided for present-day visitor access; no access to porch existed historically at north side
Front porch: wood steps at west side	1996–1997	No	Provided for present-day visitor access; no access to porch existing historically at west side
Front porch: light fixture	1995	No	Similar in design to fixture present during period of significance, but historic fixture was located south of door opening, while existing fixture is north of door opening
Front porch: ceiling and roof structure and asphalt shingles	1995; 2011	No	New shingles installed in 2011
North wall: whole-house fan enclosure	1995	No	Fan mechanism not included when enclosure was reconstructed in 1995
East wall: access panel for mechanical closet	1996	No	
Back porch: door to back porch	After 1997	No	During period of significance, a screen door was present at this location
Back porch: back door hardware	After 1997	No	

Feature	Date of Extant Material	Historic	Comment
Back porch: wood ramp to back porch door	1996	No	During period of significance, wood-framed steps were present at this location
East wall: mechanical equipment and utility meters	1996	No	
Interior			
Hardwood flooring (except hall and west bedroom repair area)	1917	Yes	
Hardwood flooring (hall and west bedroom repair area)	1996	No	
Wood base	1996	No	Matches historic profile in most areas
Gypsum board wall finish with wallpaper	1996	No	
Wood window and door trim	1996	No	Matches historic profile
Wood ceiling perimeter trim	1996	No	Does not match historic profile
Gypsum board ceiling finish	1996	No	
Living room (101): fireplace screen, gas appliance, hearth, surround, and mantelpiece	1996	No	Imprecise reconstruction based on photographs
Living room (101): paired doors to dining room, including hardware	1917	Yes	
Living room (101): staircase, stringer trim, balustrade	1917	Yes	
Living room (101): ventilation grille in floor	1996	No	
Living room (101): chandelier	1996	No	
Dining room (102): chandelier	1996	No	
Dining room (102): five-arm candle-style chandelier	Not extant	—	Documented in 1995 photographs; removed from house in 1996; may have dated to period of significance
Dining room (102): gas heater	Not extant	—	Documented in 1995 photographs; removed from house in 1996; may have dated to period of significance
Hallway (103): china cabinet	1917	Yes	
Hall way (103): beadboard ceiling cladding	1996	No	
Hall way (103): ceiling light fixture	1996	No	
Kitchen (104): linoleum flooring	1996	No	
Kitchen (104): beadboard wall and ceiling cladding	1917; 1996	Yes	Portions are original, other portions newly installed in 1996
Kitchen (104): built-in cabinets, countertop, sink	1996	No	
Kitchen (104): pantry door and hardware	1917	Yes	
Kitchen (104): pantry wall cladding	1917	Yes	
Kitchen (104): ceiling light fixture	1996	No	
Kitchen (104): door to back porch and hardware	1917	Yes	
Back porch (106): Floor, wall, and ceiling finishes and trim	1996	No	During period of significance, back porch was open air and enclosed by screens

Feature	Date of Extant Material	Historic	Comment
Upstairs corridor (201): door to whole-house fan	1996	No	
Upstairs corridor (201): linen closet door and hardware	1917	Yes	
Upstairs corridor (201): attic ceiling hatch	1996	No	
Northeast bedroom (202): door to corridor and hardware	1917	Yes	
Northeast bedroom (202): beadboard wall and ceiling cladding	1996	No	
Northeast bedroom (202): ceiling light fixture	1996	No	
Bathroom (203): linoleum flooring	1996	No	
Bathroom (203): toilet, sink, tub	1996	No	Older fixtures, salvaged from a nearby building being demolished
Bathroom (203): door to corridor and hardware	1917	Yes	
Bathroom (203): ceiling light fixture	1996	No	
West bedroom (204): door to corridor and closet door, door hardware	1917	Yes	
West bedroom (204): ceiling light fixture	1996	No	Possibly an older fixture salvaged from another building
Southeast bedroom (205): door to corridor and closet door	1917	Yes	
Southeast bedroom (205): ceiling light fixture	1996	No	
Structure			
Wood framing, including studs, plates, joists, roof rafters, interior wall and ceiling plank sheathing, exterior plank sheathing, and roof sheathing	1917	Yes	
Localized replacement members and supplemental framing members in attic	1995	No	
Mechanical, Electrical, and Plumbing			
Mechanical system including registers	1996	No	Entirely new as part of 1996 renovation
Electrical system including receptacles, switches, and other equipment	1996	No	Entirely new as part of 1996 renovation
Plumbing system	1996	No	Entirely new as part of 1996 renovation

Feature	Date of Extant Material	Historic	Comment
Visitor Center			
Exterior			
Brick masonry foundation including metal vents	1910s	Yes	
Concrete foundation parging	Unknown	?	Likely added after original construction, but date is not documented
Brick masonry veneer at walls	1910s	Yes	
Concrete window sills and caps	1910s	Yes	
Concrete steps and floor at north porch	1910s	Yes	
Exterior wood trim, brackets, exposed rafters, eaves	1910s	Yes	
Stucco cladding	1910s	Yes	
Asphalt shingle roof	2011	No	Per Sanborn maps, original roof covering was likely asphalt shingle
Brick masonry chimneys (2)	Missing	—	Removed above roofline, likely prior to 1990s
Wood double-hung window sash	1910s	Yes	
North entrance door, sidelights, and transom	1910s	Yes	Hardware may not be original
Wood-framed windows and south door at east porch	1997	No	Porch was previously enclosed by screens
Wood-framed ramp, landing, and steps at east porch	1997	No	Steps were added after initial construction of ramp
Concrete steps to east porch	Prior to 1990s	?	Concealed below wood-framed ramp
Plywood infill, south wall	1997	No	Partially enclosed south porch at this location demolished in 1997
Wood trellis, south wall	After 1997	No	
Glass block infill, former bathroom window opening	Prior to 1990s	No	
Exterior light fixtures mounted to dormer gables	Unknown	No	Newer than period of significance
North porch ceiling light fixture	Unknown	No	Likely newer than period of significance but predates 1997 work
Interior			
Hardwood flooring	1910s	Yes	
Wood base	1910s	Yes	Likely original; portions altered in 1997 related to changes to door openings
Painted gypsum board wall finish	1997	No	
Wood window and door trim	1910s	Yes	Interior door trim at some openings replaced in 1997
Wood ceiling perimeter trim	?	?	
Gypsum board ceiling finish	1997	No	
Entry (101): concrete floor	1910s	Yes	
Entry (101): exposed brick masonry	1910s	Yes	
Entry (101): wood beadboard ceiling	1910s	Yes	
Entry (101): ceiling fan	1997	No	
Reception (102): fireplace, hearth, and vertical wood plank wall cladding	1910s	Yes	Brick was likely not painted originally

Feature	Date of Extant Material	Historic	Comment
Reception (102): pendant lights at south wall	1997 or later	No	
Reception (102): main chandelier	?	?	Historic-style fixture; may be original, modern reproduction, or salvaged from another building
Exhibit (103): fireplace and hearth	1910s	Yes	Brick was likely not painted originally
Exhibit (103): wood plank ceiling	1910s	Yes	Likely originally covered with paper finish
Exhibit (103): track lighting	1997	No	
Bookstore (104): track lighting	1997	No	
Bookstore (104): door to superintendent office closet	1910s	Yes	Hardware may not be original
Corridor (105): carpet	1997	No	
Corridor (105): suspended acoustic tile ceiling	1997	No	
Superintendent office (106): carpet	1997	No	
Superintendent office (106): door to corridor, including built-up frame	1997	No	
Superintendent office (106): wood veneer paneling	1997	No	
Superintendent office (106): ceiling fan	1997	No	
Storage (107): vinyl flooring	1997	No	
Storage (107): suspended gypsum board ceiling and hatch	1997	No	
Storage (107): door to corridor	1910s	Yes	Relocated in 1997 due to reconfiguration of partitions at this area; hardware appears to be original
Office (108): carpet	1997	No	
Office (108): acoustic tile ceiling	Prior to 1990s	No	
Office (108): chandelier	1997 or later	No	
Office (108): door to corridor, including built-up frame	1997	No	
Staircase, trim, second floor balustrade	1910s	Yes	
Staircase door	1910s	Yes	Non-original deadbolt
Staircase handrails	1997 or later	No	
Storage (201): wood veneer paneling	Prior to 1990s	No	
Storage (202 and 203): exposed structural subfloor	1910s	Yes	
Storage (202 and 203): polystyrene at walls and ceiling	1997	No	
Storage (202 and 203): doors to room 201	1910s	Yes	
Storage (203): wall-hung sink	?	Yes	
Second floor light fixtures	1997	No	

Feature	Date of Extant Material	Historic	Comment
Structure			
Wood framing, including studs, plates, joists, roof rafters, interior subfloor, interior wall and ceiling plank sheathing, exterior plank sheathing, and roof sheathing	1910s	Yes	
Localized replacement members and supplemental framing members in attic and crawl space	1997	No	
Mechanical, Electrical, and Plumbing			
Mechanical system including registers	2011	No	New system to serve main floor installed by NPS
Window air conditioning units at second floor	Prior to 2011	No	
Electrical system including receptacles, switches, and other equipment	1997 and older	No	Portions are older/original, mostly replaced in 1997
Plumbing system	1997 and older	No	Portions are older/original, some modifications in 1997

Character-defining Features of the Cassidy House

A1

A2

A3

A4

A5

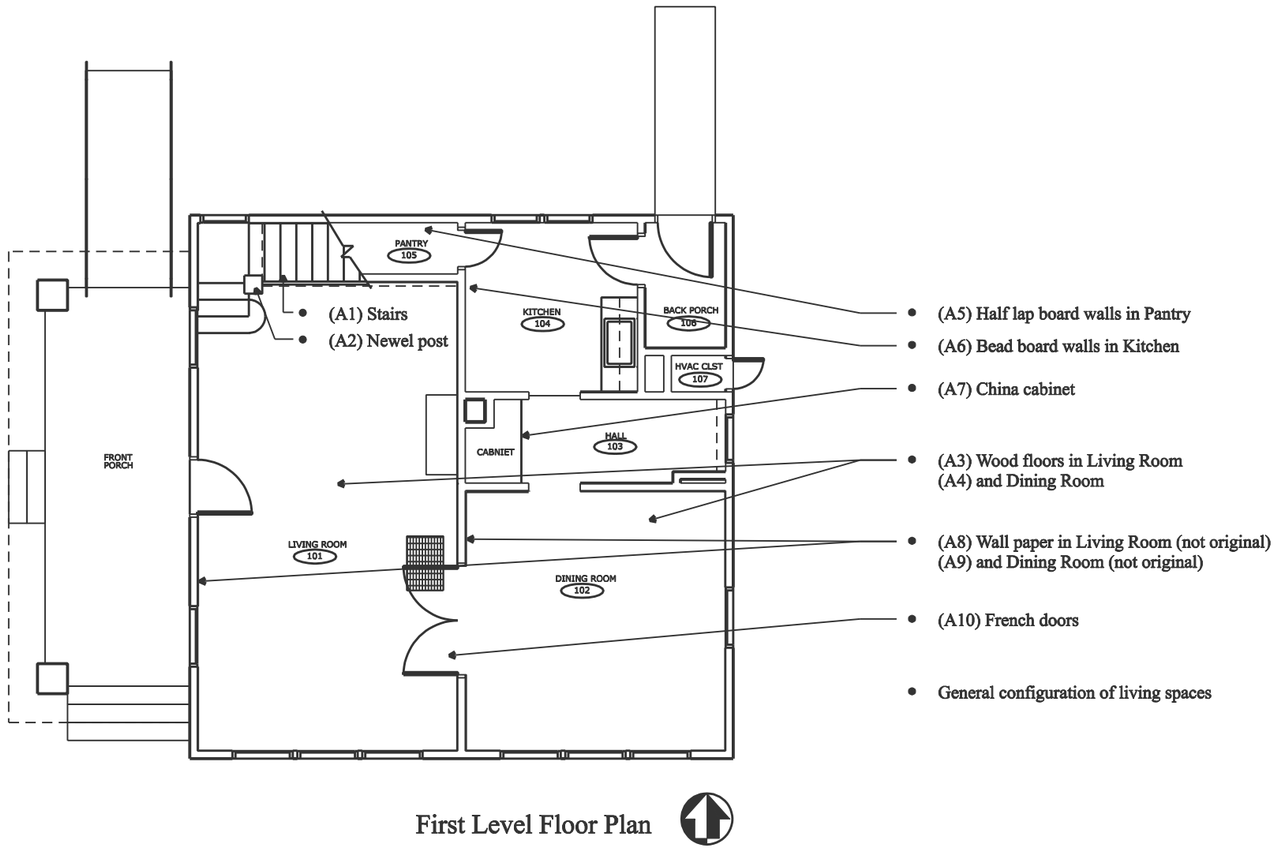
A6

A7

A8

A9

A10



First Level Floor Plan

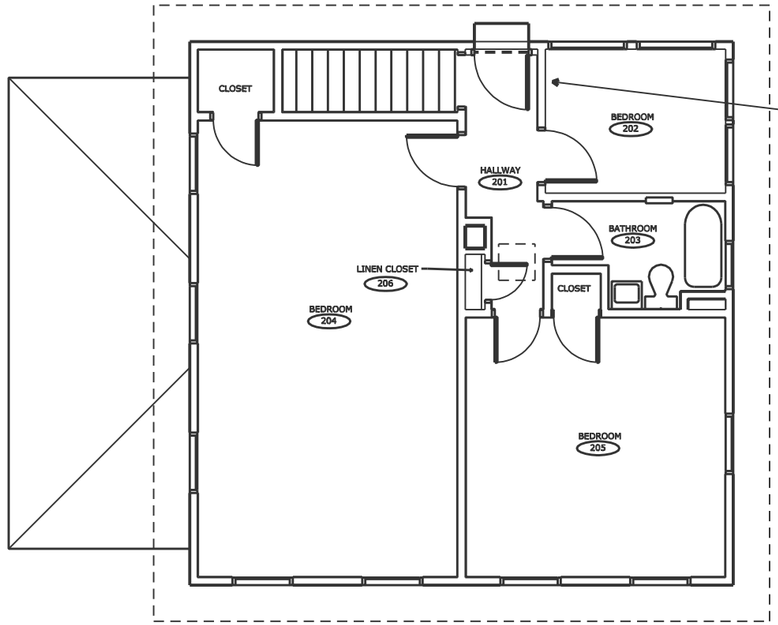
Character-defining Features of the Cassidy House

A1

A2

A3

A4



- (A2) Bead board walls in Bill's bedroom
- (A1) Wood floors throughout second level
- (A3) 5 panel doors throughout second level
- (A4) 5 door hardware throughout second level

Second Level Floor Plan

A1

A2

A3

A4

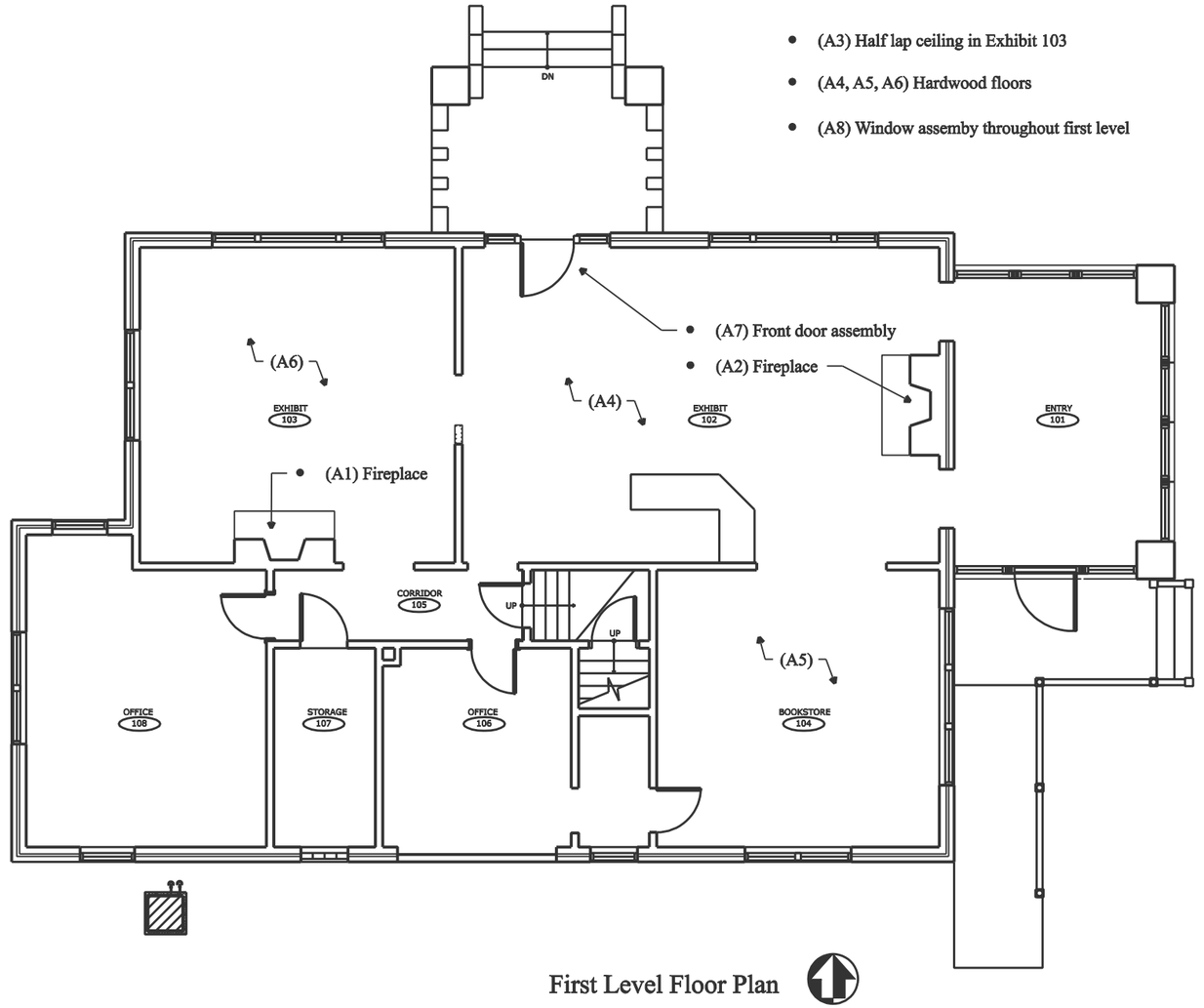
A5

A6

A7

A8

Character-defining Features of the visitor center



First Level Floor Plan

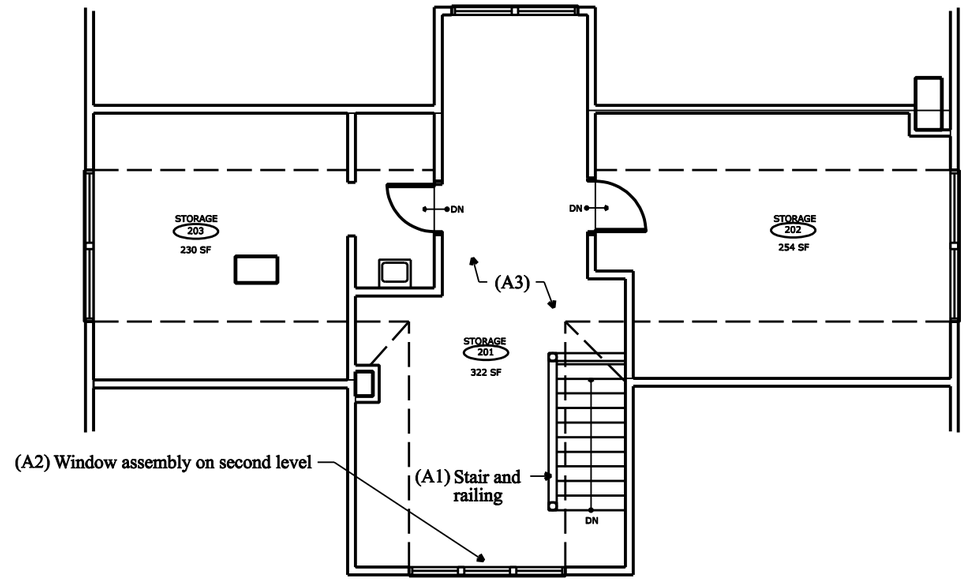
Character-defining Features of the visitor center

A1

A2

A3

- (A1) Stair and railing assembly
- (A2) Window assemby throughout second level
- (A3) Hardwood floors



Second Level Floor Plan

Assessment of Integrity

Assessment of integrity is based on an evaluation of the existence and condition of the physical features that date to a property's period of significance, taking into consideration the degree to which the individual qualities of integrity are present. The seven aspects of integrity as defined in the National Register Criteria for Evaluation are location, design, setting, materials, workmanship, feeling, and association. As noted in the National Register Bulletin, *How to Apply the National Register Criteria for Evaluation*:

> Location is the place where the historic property was constructed or the place where the historic event occurred. . . . Design is the combination of elements that create the form, plan, space, structure, and style of a property. . . . Setting is the physical environment of a historic property. . . . Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. . . . Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. . . . Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. . . . Association is the direct link between an important historic event or person and a historic property.[73]

Even if a building is significant primarily for its relationship to historic events or people important to history, the essential physical features that define its character and convey its historical significance must be present for the building to be significant. The essential physical features are those features that define both why a property is significant (National Register criteria) and when it was significant (period of significance). The tangible features of both the interior and exterior must be preserved to express the building's significance. The National Register Bulletin, *How to Apply the National Register Criteria for Evaluation*, defines integrity as "the ability of a property to convey its significance."[74] The integrity of the Cassidy House and the visitor center is evaluated below in terms of the most important physical aspects of the buildings and the sites that convey their historic character.

Cassidy House

Integrity of Location. The Cassidy House retains a high degree of integrity of location in relationship to its site. The building location has remained unchanged since its construction in 1917.

Integrity of Design. The Cassidy House retains a moderate degree of integrity of design. The general appearance and footprint of the building remain consistent with its historic design. The house is a simple foursquare plan with a full-width front porch. This style is defined by its square (30 foot by 30 foot) footprint and simple room arrangement. The form, plan, space, structure, and style are generally present from the period of significance. With the exception of the enclosure of the back porch and subdivision of this space to accommodate a mechanical room, the interior floor plan was restored to its presumed historic configuration as part of the 1990s work.

73. National Register Bulletin, *How to Apply the National Register Criteria for Evaluation* (Washington, D.C.: National Park Service, National Register of Historic Places, 1990, revised 1991, 1995, 1997), 44–45.

74. Ibid.

Integrity of Setting. The Cassidy House retains a low degree of integrity of setting. The block on which the house resides, bounded by Hervey Street, Division Street, Pine Street, and Second Street, was an entirely residential block during the period of significance. A residence was located on the site where the memorial garden currently exists, and another residence was at the corner of Hervey and Second Street. The house where longtime Clinton friend Vincent "Vince" Foster, Jr., lived still exists, facing Second Street. Another residence was located at the corner of Second and Pine Street, where a parking lot is currently located. The other two residential properties currently located on the block include the visitor center (a former residence) and the Division/Pine property, which consists of a house and a detached garage.

The neighborhood surrounding the Cassidy House, across Hervey, Division, and Second Streets, has changed considerably since the period of significance, from a primarily residential district to a commercial area. The railroad tracks located across Division Street provide a barrier between this block and neighborhoods to the north. Hervey Street (Highway 278) is a main thoroughfare in Hope, connecting the historic downtown to the Interstate 30 at the north edge of the city. Significant commercial development has occurred on Hervey Street during the past several decades. The built environment to the south, east, and west today consists of commercial properties such as a hardware store/lumberyard, fast food restaurants, and vacant lots. The integrity of the residential setting to the east has been diminished through demolition of properties. One sizable residence remaining on the southeast corner of Second and Pine Street suffered extensive fire damage and remains vacant.

Sanborn Map Company fire insurance maps from 1919 and 1926 show the configuration of the block and the footprint of residences. Seven houses were located on this block, including the Cassidy House, the visitor center, the Vincent Foster House, the house at Division/Pine, and several small outbuildings/garages. During this period, an alley divided the block running east and west between Hervey and Pine Streets. Currently, the block retains four houses, with the gravel parking lot at the southeast corner and the memorial garden at the northwest corner. The alley has been altered from its condition during the period of significance but exists as a distinct space between the rear yard of the visitor center and the rear yard of the Vincent Foster property. The alley begins at Pine Street but no longer extends to Hervey Street, as it is gated upon reaching the corner of the Cassidy House. However, the open sight line remains where the alley extended from the center of the block looking west toward Hervey Street.

The residence where the memorial garden is now located was removed in the mid-1990s; based on photographic and site plan drawing documentation, this likely occurred in 1996.[75] After the Cassidy House was acquired in 1995 and the visitor center was purchased in 1996, the Clinton Birthplace Foundation proceeded with construction work on both buildings. After the renovation of both buildings was completed, fundraising continued for the memorial garden. The garden was constructed and planted

75. According to an oral interview with architect Stan Jackson, the first property acquired by the Clinton Birthplace Foundation was the house at the corner of Hervey and Division streets, the current site of the memorial garden. Mr. Jackson noted that the foundation acquired the house, which was in poor condition, with the intent of demolishing it to construct a new visitor center on the site.

gradually by volunteers over several years. By 2000, most of the plantings were established.

Integrity of Materials and Workmanship. The Cassidy House retains a low level of integrity of materials and workmanship. The extant physical elements that comprise the resource include both new and historic material, and the physical evidence of original craftsmanship in the building is minimally present. Sometime after the Cassidy family sold the house, it became a rental property. Over the years, deferred maintenance began to affect the property. In 1992 a fire damaged the second story front bedroom. During the fire, and as a result of efforts to extinguish it, some historic fabric was lost.

After the house was vacated because of the fire, a concerted effort was put forth to save the property by the Clinton Birthplace Foundation. This effort resulted in significant removal and replacement of deteriorated and non-original materials to address the effects of the fire and neglect, to renovate the home for public viewing, and to create an overall appearance that was presumed to be appropriate to the late 1940s period of significance. New wall and ceiling interior finishes were installed throughout most of the house. The exterior siding and trim was removed and replaced, and the roof was replaced. The front porch was demolished and rebuilt. New windows and exterior doors were installed. The foundation was partially rebuilt, and the building structure was repaired. Entirely new mechanical, electrical, and plumbing systems were installed. Because of these significant alterations, the integrity of materials and workmanship of the house was greatly diminished.

The general appearance of the house today, including its configuration, massing, scale, and plan, reflects that of the house during the historic period (as noted under the discussion of integrity of design); however, the materials used in the renovation do not match the profiles and details of the historic materials. For example, the exterior clapboard siding was removed and replaced with shiplap siding that does not match the historic profile. Corner trim boards were added where previously there were none. New windows were installed that do not match the profiles, dimensions, or exterior trim of the original historic windows, although the new windows were installed in the existing openings and the opening size was not altered, and the muntin pattern of the new window sash reflects the original design. The interior walls and ceilings were stripped of their wallpaper down to the horizontal tongue and groove wood plank substrate, covered with gypsum board, and finished with new wallpaper.

Integrity of Feeling. Integrity of feeling is expressed in the aesthetic or historic sense of the period of significance. Although the Cassidy House has diminished integrity of materials and workmanship, the character and overall appearance of the house continue to convey the feeling of the period of significance. In addition, the remaining structures on the block help to convey the feeling of the immediate surroundings at the time young Billy Blythe lived in the house.

For the Cassidy House, a significant sense of feeling is created by the nearby railroad tracks just north of Division Street. President Clinton recalled playing on the railroad bridge and hearing the constant horn of the trains and rattle of the tracks as trains came through town. He wrote about wondering where the trains were going and if he would ever travel to those places.

Today, the trains passing through town remain a notable characteristic of life in Hope and the wail of the horn continues to interrupt daily activity. That sense of feeling associated with

the presence of the railroad through the area remains strong. However, the overall integrity of feeling at the site is diminished by the changes to the neighborhood and the loss of continuity within the residential block. Thus, overall integrity of feeling is judged to be moderate.

Integrity of Association. The Cassidy House has a high level of integrity of association. It is the first childhood home of President Clinton and the house where he spent the first four years of his life. He also returned to the property up until the time his grandfather died and the property was sold. This property is listed in the National Register for its national level of significance under Criterion B for its association with President Clinton.

Visitor Center

Integrity of Location. As a context building for the historic Cassidy House, the visitor center retains a high degree of integrity of location. The building location remains unchanged from its construction date.

Integrity of Design. The visitor center retains a moderate degree of integrity of design. The residence was built as a Craftsman-style cottage with brick walls and stucco gable ends. Most notably defining the style on the exterior are the windows and the roof with its overhanging eaves with brackets and purlins. The prominent dormers at the north and south roof line also contribute to the integrity of design. The north facade was formerly the main entrance to the house, and the brick front porch and formal front door with side lights and transom are important features of the building's design.

The interior of the visitor center retains its historic floor plan with the exception of the side porch (east facade), which has been enclosed and converted to the main accessible entrance, and the removal of a glassed-in breakfast room extension that was present on the south side of the house. The existing rooms have been utilized for a welcome area/lobby, interpretation and exhibits, offices, and gift shop purposes. However, their size and configuration remain generally intact. The interior floor plan and overall configuration of interior spaces, despite the alternate current use, continue to contribute to the integrity of design.

Integrity of Setting. As a context building for the Cassidy House, the visitor center retains a relatively low level of integrity of setting. Similar to the setting for the Cassidy House, demolition and other conditions on and adjacent to the block on which the building is located have changed significantly since original construction.

Integrity of Materials/Workmanship. The visitor center retains a moderate degree of integrity of materials and workmanship. The exterior of the building retains its brick cladding and overhanging eaves with exposed purlins. Most of the historic windows remain in the visitor center as well. Those on the upper level as well as the windows in the lobby and exhibit area and surrounding the front door all date to original construction. The brick work, its patterning, and the details on the knee walls at the projecting front porch reflect the original workmanship. The interior retains its wood floors, although some are covered with carpet in the office area, and door and window trim. The two fireplaces and surrounds also date to original construction. At the second floor, original wall and ceiling materials remain.

Integrity of Feeling. The visitor center retains moderate integrity of feeling. The building retains the character of a residential structure, as it appeared during the period of significance as defined for the Cassidy House. As with the Cassidy House, integrity of feeling is diminished by loss of the residential context, although the sense of feeling provided by the

trains traveling on the tracks just over Division Street provides a constant reminder of the historic period.

Integrity of Association. The importance of the visitor center to the site is inherent in its physical relationship to the Cassidy House as the first childhood home of President Clinton, and as part of the setting of the Cassidy House as described above. As a context building for the Cassidy House, the visitor center retains its physical relationship with the Cassidy House from the period of significance for the site, and therefore retains a high level of integrity of association.

Comfort Station

The comfort station is of recent construction and is a non-contributing feature of the site. There have been no major alterations to the building since its construction in 1997.

Treatment and Use

Requirements for Treatment and Use

Laws, Regulations, and Functional Requirements

Key laws, regulations, and functional requirements that apply to the recommended work include the following:

- National Park Service Cultural Resources Management Guideline (Director's Order 28), which requires planning for the protection of cultural resources on park property.
- Section 106 of the National Historic Preservation Act (NHPA), which mandates that federal agencies, including the National Park Service, take into account the effects of their actions on properties listed or eligible for listing in the National Register of Historic Places and give the Advisory Council on Historic Preservation a reasonable opportunity to comment.

Treatment of the building and site are also to be guided by the following:

- *Secretary of Interior's Standards for the Treatment of Historic Projects*
- National Park Service *Management Policies 2006*
- Americans with Disabilities Act (ADA)
- International Building Code (IBC), 2009
- International Existing Building Code (IEBC), 2009
- National Fire Protection Association (NFPA) 101: *Life Safety Code* (LSC), 2012

The State of Arkansas currently uses the 2007 Arkansas Fire Prevention Code, which is largely based on the 2006 edition of the IBC. The State of Arkansas has also adopted the 2003 edition of NFPA 101.

The National Park Service is self-regulating in terms of enacting and enforcing building code standards. President William Jefferson Clinton Birthplace Home National Historic Site is therefore not legally subject to local or state building code requirements. When undertaking repairs to buildings structures, NPS endeavors to have the work comply with model building code standards. At this time, the 2009 International Building Code is the model building code used by NPS for design and construction. (Although the 2012 IBC was recently published, the NPS Denver Service Center currently directs designers to the 2009 edition of the code.)

Newly installed electrical systems and components, including any significant alterations to existing electrical systems, should comply with applicable provisions of the NFPA 70: National Electrical Code (NEC). Arkansas has adopted the 2008 edition of the National Electrical Code, although the 2011 edition has also been published.

Executive Order 13514 issued in 2009 directs all federal agencies to implement sustainable

design and construction practices. For the Cassidy House and visitor center, the relevant guidelines in this executive order require:

> . . . managing existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets' deferred maintenance costs . . . [and] ensuring that rehabilitation of federally owned historic buildings utilizes best practices and technologies in retrofitting to promote long term viability of the buildings.[76]

With historic structures, attempts to achieve strict conformance with model building code standards that are intended for new buildings can lead to destruction of the historic fabric. Alternative compliance procedures, such as Chapter 12 of the IEBC relating to historic buildings, should be referenced in determining code compliance.

Alternatives for Treatment and Use

The U.S. National Park Service has developed definitions for the four major treatments that may be applied to historic structures: preservation, rehabilitation, restoration, and reconstruction. The four definitions are as follows:

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of

76. "Executive Order 13514 of October 5, 2009: Federal Leadership in Environmental, Energy, and Economic Performance" (Washington, D.C.: *Federal Register* 74, no. 194, October 8, 2009).

> replicating its appearance at a specific period of time and in its historic location.[77]

The continued use of the Cassidy House is anticipated to be similar to its current function as a house museum, and the continued use of the visitor center is also anticipated to be similar to its current function as offices and exhibit space. If changes in use are anticipated to either building, a use that requires significant alterations to the historic exterior or interior spaces and features should not be considered. Where future modifications are considered to provide universal accessibility, incorporate improvements to mechanical, electrical, and plumbing systems, and meet code requirements, these modifications should be designed taking into consideration the goal of retaining original historic materials and features wherever possible. Where incorporation of new amenities would require significant alterations to the building that could diminish its integrity as an historic resource, consideration should be given to limiting or avoiding these modifications.

For the Cassidy House, *preservation,* which involves sustaining the building in its existing form, is not appropriate as a treatment alternative because of the many changes and removals of historic materials that have occurred to the building. The existing building fabric is to a large extent non-historic, although certain historic character-defining features remain and should be preserved as part of the overall treatment approach. Some existing non-historic interior and exterior materials and elements do not match the documented historic materials and elements that were present during the period of significance. Permanent preservation of these existing non-historic materials would be in conflict with the legislated purpose and interpretive goals of the park. *Restoration* would return the building to its appearance during the period of significance, and given the distinct period of significance, a restoration target date can readily be determined. The treatment *restoration* would also accommodate limited, sensitive modifications as needed to address building systems and code-related issues. However, sufficient evidence of historic materials and finishes does not exist to apply the treatment *restoration* for the Cassidy House, and restoration would be based largely on conjecture. *Rehabilitation* of the building would include necessary repairs and sensitive modifications based on existing evidence of the building's appearance and materials during the period of significance. This treatment could be applied to address previous modifications and removal of historic fabric that has diminished the integrity of the Cassidy House as it currently exists. The limited existing evidence of the materials, finishes, and detail of the house as they appeared during the period of significance could be used to return the appearance of the house more closely to that period (and to remove existing inaccurate or conjectural modifications where documentation exists to support more accurate restoration of features); however, these measures would be restoration tasks within the overarching treatment *rehabilitation.* Many details, materials, finishes, and colors of the period of significance are suspected but cannot be established definitively based on available documentary and physical evidence. Of the four treatment alternatives, the treatment *rehabilitation* is therefore considered the most appropriate for the Cassidy House, given its historic significance and existing condition.

For the visitor center, *preservation* (sustaining the building in its existing form) is not appropriate as a treatment alternative because it would not accommodate current and future use of the building to meet park and user needs. In addition, the building (particularly the interior)

77. *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

is not inherently significant or intact such that it merits overall preservation. *Restoration* would return the building to its appearance during the period of significance; however, as with *preservation*, this alternative would not accommodate current and future use of the building. *Rehabilitation* of the building would include all of the repairs necessary to stabilize and preserve or restore character-defining features, as well as modifications as needed to accommodate improvements to heating, ventilating, air conditioning, electrical, and plumbing systems, and code and universal access requirements for use by park staff and visitors. Of the four treatment alternatives, the treatment *rehabilitation* is therefore considered the most appropriate for the visitor center, given the need for continued compatible reuse.

Ultimate Treatment and Use

Guidelines for Treatment

Guidelines and requirements for treatment have been defined based on the preservation objectives and requirements for treatment and use outlined above for the Cassidy House and the visitor center. All treatment guidelines and recommendations were developed in accordance with the *Secretary of Interior's Standards for Rehabilitation* for the Cassidy House, and for the visitor center.

The Secretary of the Interior's Standards for Rehabilitation are as follows:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires

replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.[78]

In addition to the Secretary of the Interior's Standards for each building as cited above, the following basic guidelines should also be used for work on the Cassidy House and visitor center:

- Retain the character of the historic buildings and environs by protecting the buildings and significant site features.
- Ensure that proposed new elements or construction are compatible with historic character of the building and its site and with the selected overarching treatment approach.
- Protect adjacent natural resources during construction activities.
- Document through detailed as-built drawings, photographs, and written narrative all changes and treatments to the buildings and its immediate site. Maintain records of treatments and preserve documentation according to professional archival standards. Maintain a copy of records in NPS archives.
- Retain features and materials at both the exterior and interior of the buildings that date from the period of significance to the greatest extent possible.
- Incorporate sustainable design principles in all future projects that respect the preservation principles listed above.

Prioritization of Treatment

Based on the condition assessment performed as part of the Historic Structures Report, the following prioritization is recommended for work. Repairs related to structural stabilization and safety issues, such as replacement of broken glass, should be completed first. This immediate work should be followed by work necessary to mitigate longer-term safety hazards, such as the abatement of asbestos-containing materials or lead-based paints. Work related to exterior envelope waterproofing should follow to prevent water infiltration and deterioration of building envelope materials, and to address conditions that may lead to continued deterioration and loss of historic fabric. These types of repairs include repairs to foundations and drainage, masonry, and windows and doors. The next priority is modifications required to

78. Ibid.

permit continued reuse of the building, such as work required to meet code, for universal access, for egress, to rehabilitate interior finishes, or to upgrade building systems.

Finally, in addition to the specific repairs recommended, cyclical maintenance tasks such as inspection and painting of exterior wood elements, pointing of mortar joints in brickwork, replacement of joints sealants, inspection and care of trees, and other ongoing maintenance tasks must be continually implemented to avoid damage to the historic site and building fabric and to reduce the need for large-scale repair projects in future.

All work performed on the building and site features should be documented through notes, photographs, and measured drawings and/or sketches, or with as-built annotations to construction documents at project completion. Documentation should be coordinated with the park's system of record-keeping for repairs and maintenance (e.g., in coordination with project work orders developed using the NPS Facility Management Software System).

These records should be permanently retained in NPS regional or park archives as part of the permanent record of the building and to provide information for future repairs and ongoing maintenance. In addition, these records will allow future observers to identify which materials are historic.

Site Recommendations

Under the preferred alternative identified in the CLR/EA, Alternative 3 – Adaptive Reuse, the site would be revitalized with enhanced and new facilities and programs that support interpretation and education. The Cassidy House and grounds would be rehabilitated in keeping with their character during the period of significance. The visitor center will retain its current function and would be expanded as needed to provide additional space for administrative, operational functions. A new facility would be constructed to accommodate the space needs for visitor services, educational, and interpretive functions.

Cassidy House Recommendations

Exterior

Significant structural repairs are recommended to address the inadequate foundation, as discussed in more detail below. As part of the foundation work, it is recommended that roof drainage for the building also be addressed. Gutters and downspouts do not currently exist and were not present during the period of significance. Therefore, consideration should be given to an appropriate surface treatment at grade that will allow for free drainage without erosion or standing water in the crawl space below the house or against the foundation wall.

All future work on the house should ensure the preservation in situ of the three concrete steps at the south end of the front porch, which are among the only existing exterior elements that are known to survive from the period of significance.

Except for the foundation and drainage issues, the Cassidy House exterior is currently in fair condition overall. Typical maintenance work to sustain the house in the short term will include:

- Touch up paint on wood elements as needed.
- Replace cracked and broken panes of glass.
- Monitor the porch roof and main roof for watertightness.

As part of future restoration efforts, or when the wood siding, wood trim, windows, and doors installed as part of the 1995–1996 work require more substantial intervention due to deterioration, these non-historic materials should be removed and replaced with new replicas matching the appearance of the house during the period of significance as documented in Clinton family photographs. The three-light transom above the front door is an original historic element that should be retained and repaired.

It is not clear from available historic photographs if the brick masonry chimney extended above the roof line during the period of significance and if so, what its approximate height and configuration were. However, it is likely that a chimney was present to vent the gas-fired heater in the living room fireplace. If evidence of the appearance of the chimney can be found, the brick masonry chimney should be reconstructed as part of the next cyclical roof replacement.

Consideration could be given to installing screen enclosure walls and a screen door at the front porch, matching the screen enclosure visible in family photographs dating to the period of significance. As part of the front porch work, installation of a new replica front door matching the front door present during the period of significance could be undertaken based on documentary evidence. Changes to the front porch would need to be coordinated with any improvements to the universally accessible visitor access pathway to the house.

Consideration could also be given to re-opening the rear porch and restoring the screened porch configuration present during the period of significance, including doors and steps visible in family photographs. The restoration of the porch to its full extent would require the relocation of the small mechanical closet created in 1996 from a portion of the former porch. Further research may require an investigation into the walls and ceiling structure in this area in an effort to determine the former layout of walls and openings. The conjectural layout of this area is based upon information offered in the Virginia Kelley video about this part of the house and the architectural drawings from the

period, which show demolition of the back porch area.[79]

Lastly, consideration could be given to installing a replica or salvaged whole house fan and mechanism at the fan hood on the north elevation of the house. The fan would not need to be operational but would be installed for interpretive purposes, in lieu of the plywood board-up currently in place.

Interior

The interior of the Cassidy house is in good condition overall. Typical maintenance work to sustain the house in the short term will include:

- Touch up paint on wood elements as needed.
- Maintenance of the tongue-and-groove wood flooring throughout the house as needed.

Safety Measures. As noted in the Physical Description and Condition Assessment chapter, testing revealed that lead-based paint (LBP) was present at certain painted interior wood features. In the Cassidy House, lead paint in concentrations greater than 5,000 ppm was documented at the following locations:

- Pantry (room 105), 28,730 ppm
- Kitchen (room 104), ceiling/wall above sink, 59,760 ppm
- China cabinet in hall (room 103), 130,000 ppm
- Northeast bedroom (room), door, 36,050 ppm
- West bedroom (room), door jamb, 9,898 ppm

The presence of LBP poses a hazardous condition should these surfaces be disturbed by maintenance or renovation. Special controls will be required when work is undertaken on these features.

Also, asbestos has been documented in the liner of the water heater located in the kitchen. This water heater is not a historic or functional element of the house; rather, it is a salvaged period-appropriate item installed for interpretive purposes. Consideration can be given to removing and properly disposing of the water heater and, if desired for interpretive purposes, installing another period-appropriate water heater that is free of asbestos. If it is determined that the existing water heater remains useful for interpretive purposes, it should be temporarily removed from the house, all asbestos should be properly abated under controlled conditions off-site, and the water heater should be reinstalled.

Original Interior Features. All future work within the house should ensure the preservation in situ of the interior features that were extant during the period of significance. These features include:

- The staircase located along the north wall of the living room (room 101).
- The china cabinet in the hallway (room 103) between the dining room (room 102) and the kitchen (room 104).
- The beadboard wall and ceiling finishes in the kitchen (room 104).
- The tongue-and-groove wood floors throughout the house.
- The half-lap wood substrate of the walls and ceilings.

79. Tour of Cassidy House with Virginia Kelley, July 1, 1993.

- The French doors between the living room (room 101) and the dining room (room 102), and interior doors in general.

Other finish materials throughout the house were either modified or replaced as part of the 1996 work. These materials therefore do not date from the period of significance and are non-historic. In the long term, to replicate the materiality and finishes of the interior to more accurately represent the period of significance, the following tasks are recommended:

Walls. All interior walls other than those with a beadboard finish were originally a regional vernacular type of construction in which horizontal half-lap wood boards were nailed to the wall studs, cotton mesh fabric was adhered to cover the boards, and wallpaper was hung over the fabric. As part of the 1996 work, subsequent layers of wallboard and various other wall finishes added after the period of significance, as well as the underlying wallpaper and fabric, were removed. Gypsum board was installed over the wood boards, with new wallpaper applied.

To replicate the appearance and construction of the walls during the period of significance, the gypsum board should be removed to expose the half-lap wood boards, which should be finished with layers of cotton fabric and wallpaper. The result would be to restore the original thickness of the walls. With the gypsum board overlay, the walls are now thicker than they were originally. Because of this, the wood door trim was replaced and new was installed with blocking beneath to replicate the proper reveal along the edge of the trim and wallboard. Subsequently, the doors cannot be opened fully, as they bind against the built-up trim. The living room wallpaper should replicate the wallpaper documented in the Clinton family photographs. There is no known record of the wallpaper in other rooms. The possible exception is noted in the video dated July 1, 1993, of Virginia Kelley touring the house before the 1995–1996 work commenced. At that time, the wallpaper in the closet in her parents' bedroom (room 205) was identified by Virginia Kelley as possibly being the same as that of the room during the period of significance. Door trim, window trim, and wall base millwork was replaced as part of the 1995–1996 work, closely replicating the original profile. The cornices throughout the house consist of rectangular wood stock, installed as part of the 1996 work. Interior photos from the period of significance show that the cornice was molded and curved. Much of the replacement trim was fabricated from rough, warped, and knotty lumber, most likely of a lower quality than the original. Replacement trim should be a higher quality, paint-grade wood. If the cornice is to be replaced, the profile should match that shown in interior photographs from the period of significance.

Ceilings. During the period of significance, the original ceilings were of the same construction as the walls, with half-lap wood boards covered with cotton fabric and wallpaper. The ceiling wallpaper, typically white, was also applied to approximately the top 12 inches of the wall with a typically 2-inch-wide border over the seam of between the ceiling and the wall papers. This technique is discussed in the July 1, 1993, video interview of Virginia Kelley. Many of the ceilings had been overlaid with acoustic tile after the period of significance. As part of the 1996 work, all ceiling finishes were removed to expose the original wood boards, and gypsum board was installed and painted. To replicate the appearance and construction of the ceiling during the period of significance, the gypsum board should be removed to expose the wood half-lap boards, and a layer of cotton fabric and ceiling wallpaper applied over the boards.

Doors. Any existing paint should be removed from the door hardware. The replacement brass hardware dating from the 1995–1996 work should be replaced with hardware matching that which is extant from the period of significance.

Structural System

Foundation. The Cassidy House continues to experience differential movement due to the nature of local soils and the use of an unreinforced masonry foundation of isolated piers. Based on the observed distress, it is recommended that issues associated with differential settlement of the masonry foundation be mitigated to sustain the Cassidy House for the long term. Due to the absence of design drawings for the foundation and a lack of information about the actual soil conditions in the vicinity of the house, a comprehensive investigation of the soils and the foundation below grade, including inspection openings, should be performed. See Recommendations for Further Research at the end of this chapter.

Depending on findings from additional investigation, one approach to address existing deficiencies would be to replace the foundation with new reinforced concrete walls, piers, and spread footings of appropriate size and depth. The new foundation system would be clad in brick where it extends above grade to retain the appearance of the existing masonry wall. This approach has been considered for the purpose of providing the attached cost estimate.

If confirmed to be appropriate based on further investigation, an alternate approach would be to repair and underpin the existing masonry foundation. Underpinning was initially planned as a part of the 1995 work when the foundation was repaired and partially rebuilt, but the underpinning was not implemented at that time.[80] As part of the underpinning and foundation repair approach, the masonry foundation wall would be partially reconstructed, including but not limited to locations where the above-grade single wythe foundation wall is misaligned from the original subgrade masonry foundation at the south elevation. The approach to this repair will vary depending on the foundation repair or replacement design.

The structural design of the foundation reconstruction or repair would need to be coordinated with design of temporary shoring, site and landscaping protection and repairs, possible utility disconnection and reconnection, possible repair or reconstruction of non-original universal accessibility ramps, and protection of the historic concrete site stairs at the south side of the west porch. Under any foundation reconstruction or repair approach, the installation of a subsurface drainage system should be considered. Archeological investigations will be required prior to any ground disturbance related to foundation work.

In the short term, it is suggested that cracks at the exterior of the masonry foundation wall be filled with sealant to prevent water infiltration.

Floor Framing. The notched joist condition will require reinforcement, especially at locations where splitting is observed to be propagating from the bearing ends of joists. Notched joists of this configuration were commonly used in nineteenth and early twentieth century construction, but this bearing detail is now known to significantly reduce the overall capacity of the joist. Supplemental wood or metal elements such as prefabricated galvanized metal joist hangers should be added to reinforce these connections.

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80. Cromwell Architects Engineers, draft drawing S1, omitted from final set.

There is evidence of previous termite damage at the first floor framing. Even if termite activity is not current, this site has a propensity for future termite infestation. Inspections for termite infestation are performed annually but it is unknown if any treatment has ever been implemented.[81] Additionally, a close-up inspection of the first floor framing should be considered to determine if any unobserved locations are structurally compromised due to termite-related decay. If significant decay is observed, it is recommended that localized areas be repaired accordingly to restore the structural integrity of the first floor.

The investigation for this report was a general visual inspection of limited areas, and was not intended to determine the exact capacity of the framing systems. A more thorough investigation of the foundation and first and second floor framing should be conducted to confirm assumptions about the overall conditions of the structure and to determine whether any strengthening is required. The structure should be repaired as necessary to maintain the capacity and serviceability of the wood framing. Repairs to the floor framing should be coordinated with work on the foundation.

Roof Framing. The two hip rafters should be repaired where breaks and displacement were observed. The structural integrity of these rafters is compromised in their current state.

Locations where roof planking was observed to be cracked or missing do not require action at this time. When the roof is replaced in the future, these localized areas can be repaired accordingly.

Where roof framing is found to have significant section loss, breaks, or severe splits and checks, repairs should be performed to maintain the structural integrity of the framing system.

Further analysis should be conducted to determine whether the framed knee wall observed near the dormer at the west end of the roof is necessary to support the roof framing in this area. If required, an appropriate repair should be designed and implemented.

Mechanical Systems

With continued maintenance, no specific work is recommended at this time for the HVAC and plumbing systems for the Cassidy House. At the end of the systems' useful life, the furnaces, and heat pumps should be removed and replaced. For the HVAC systems, replacement would be expected to be required in approximately fifteen to twenty years.

Future Alternate Mechanical System: Geothermal Heat Pumps. An alternate heating and cooling system to replace the existing gas-fired furnaces, once the furnace systems have reached the end of their useful life at the Cassidy House, could include a geothermal heat pump system commonly known as a ground source heat pump (GSHP) system. A GSHP system is made up of several key components including a ground piping loop, indoor heat pumps and an air delivery system. The ground loop is a system of pipes that is buried in the shallow ground near the building. A fluid, generally water, circulates through the ground loop to absorb or relinquish heat within the ground. In the winter, the heat pump removes the heat from the fluid in the pipe, concentrates it, and transfers it to the building. This process is reversed in the summer. The air delivery system uses conventional ductwork systems to distribute the heated or cooled air throughout the building. A GSHP system would include a well field matrix comprised of vertically bored wells

81. The annual termite inspection was initiated by the Clinton Birthplace Foundation in the 1990s, and the contract has been continued by the National Park Service.

situated in a grid pattern with the vertical well borings located approximately 20 feet apart. The vertical wells generally consist of a 6- to 8-inch-diameter boring with two small (3/4 inch to 1 inch) diameter high-density polyethylene tubes in the vertical borehole. The vertical borehole with the piping is then filled with a solid medium, commonly referred to as grout. Boreholes typically range from 50 to 600 feet in depth, depending on the local site conditions, including soil thermal conductivity and availability of equipment. Soil thermal conductivity information may be available from a local drilling contractor and/or a local utility. If no soil thermal conductivity information is available, a test well would be needed to conduct a soil thermal conductivity test to determine the ground conditions at the Cassidy House site.

A determination of the number of wells would be based on the results of the conductivity test. If the test well were able to yield, for example, a 0.75 to 1-ton capacity per well, the estimated number of wells required to serve the Cassidy House would be four to five wells. Because vertical well fields require relatively small areas of land, a well field could be located in the open space between the Cassidy House and visitor center. Archeological investigations will be required prior to any ground disturbance related to installation of a GSHP system.

Adjacent to each vertical well location, supply and return piping mains would be provided allowing connection of the piping to and from the vertical well boring locations. The supply and return water mains would be piped back to the Cassidy House, where they would enter the structure. Heat pump units to serve the Cassidy House could be installed at an appropriate location in the interior. The existing supply and return air duct systems serving the Cassidy House could be reused and connected to the new heat pump units. Water used for the piping loop would be circulated between the well field and the indoor heat pump units by means of a circulating pump, which could be located inside the Cassidy House where the piping enters and exits the house.

Because a GSHP system would utilize the ground for heat rejection for the indoor heat pump units, the existing grade-mounted heat pumps associated with the existing furnace systems and located adjacent to the Cassidy House could be eliminated, reducing the visual impact of non-historic mechanical equipment on the historic site.

Fire Protection. None of the three buildings on the National Historic Site are currently protected by any type of fire protection system. It is highly recommended that the Cassidy House be provided with a fire protection system, especially given the historical value of the building and the previous occurrence of a fire in the building.

The entire Cassidy House is of wood construction, and therefore any added fire protection system would need to address fire protection of the first floor, second floor, and attic space. As the attic space is subject to freezing temperatures, a dry-pipe system is recommended to serve the entire facility. A dry-pipe system would require that a new fire water utility be provided to the Cassidy House from an existing water utility located at either the street to the south or west of the Cassidy House, depending on the water utilities available. The fire utility entrance could be located at the east back porch space of the first floor; the final location of the utility entrance needs to be coordinated with any interior finish work or the potential future restoration of the back porch to an open, screened configuration. Sprinkler piping to serve the first floor could be installed in walls with sidewall heads provided to serve the various rooms. Pipe routing up to the second

floor and attic spaces could utilize walls at the second floor. Coordination of wall material demolition and repair would be necessary where horizontal and vertical piping were to be installed. As the Cassidy House is approximately 900 square feet per floor, it is anticipated that the entire facility can be covered as a single zone.

Electrical Systems

Primary Power Distribution. The primary power distribution system is maintained by the local power company.

It is recommended that the pad-mounted transformer serving President William Jefferson Clinton Birthplace Home National Historic Site and two private residences on the same block be retained to serve only the private residences. A new power company pad-mounted transformer should be provided, located on National Park Service property, to serve only the national historic site. This is a critical issue.

Electrical Service. It is recommended that the existing underground secondary electrical feeder be disconnected and abandoned, and the existing 100-amp, building-mounted meter socket and 100-amp load center be removed. A new 100-amp load center should be provided, connected to a 400-amp panel in the comfort station with a new 100-amp underground feeder (Figure 484 and Figure 485). This is a critical issue.

Interior Wiring. The existing NMC wiring should be removed or abandoned, and new metal-clad sheathed cable wiring provided with connections to existing light fixtures and devices.

Grounding. A new grounding electrode system should be provided to the new load center. The new grounding electrode system should be connected to the water main and a copper-clad driven ground rod.

Lighting/Devices. The currently installed lighting fixtures should remain. In the future, if photographs or other documentation are identified that indicate the appearance of the historic lighting fixtures, replica fixtures should be provided. Additional lighting may be needed in the future for interpretive displays.

Exit Lighting/Emergency Lighting. It is not recommended that exit lights be added, since the exit is clearly visible.

Selected existing lighting fixtures should be connected to a battery 12 volt to 120 volt inverter system to provide emergency lighting.

Fire Alarm/Intrusion Alarm System. The existing stand-alone battery-powered smoke detectors should be removed, and a new combination fire alarm/security system provided. The new system would support new fire alarm smoke detectors, fire alarm audio/visual devices, security motion detectors, and security contacts. The existing inactive security panel should be removed. This is a critical issue.

Communication System. A wireless communication system should be provided to support future interpretive displays.

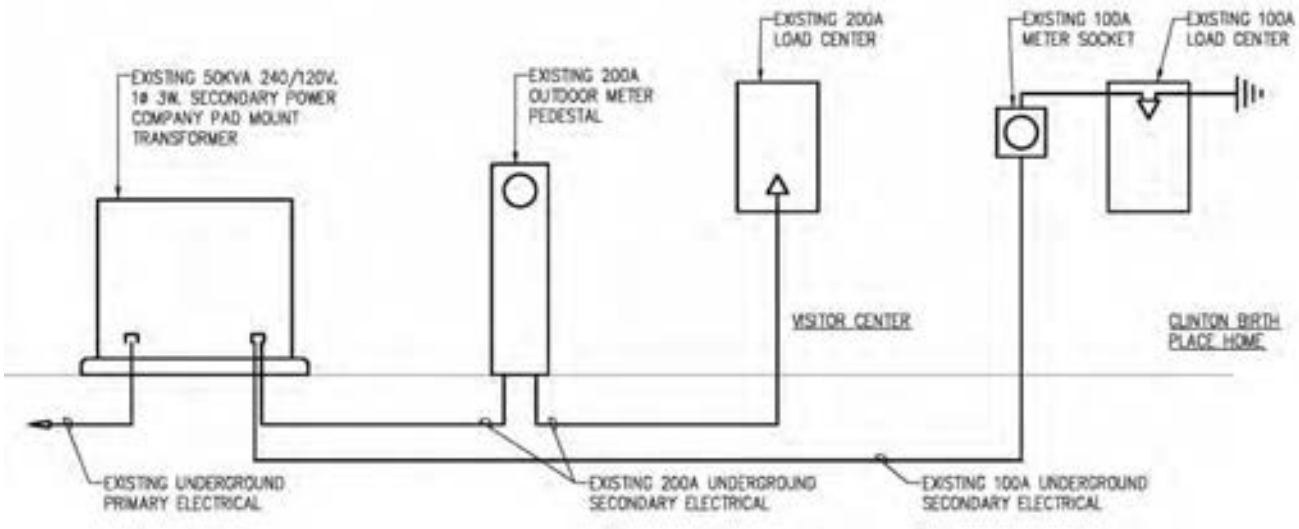

FIGURE 484. Existing power distribution system at the site.

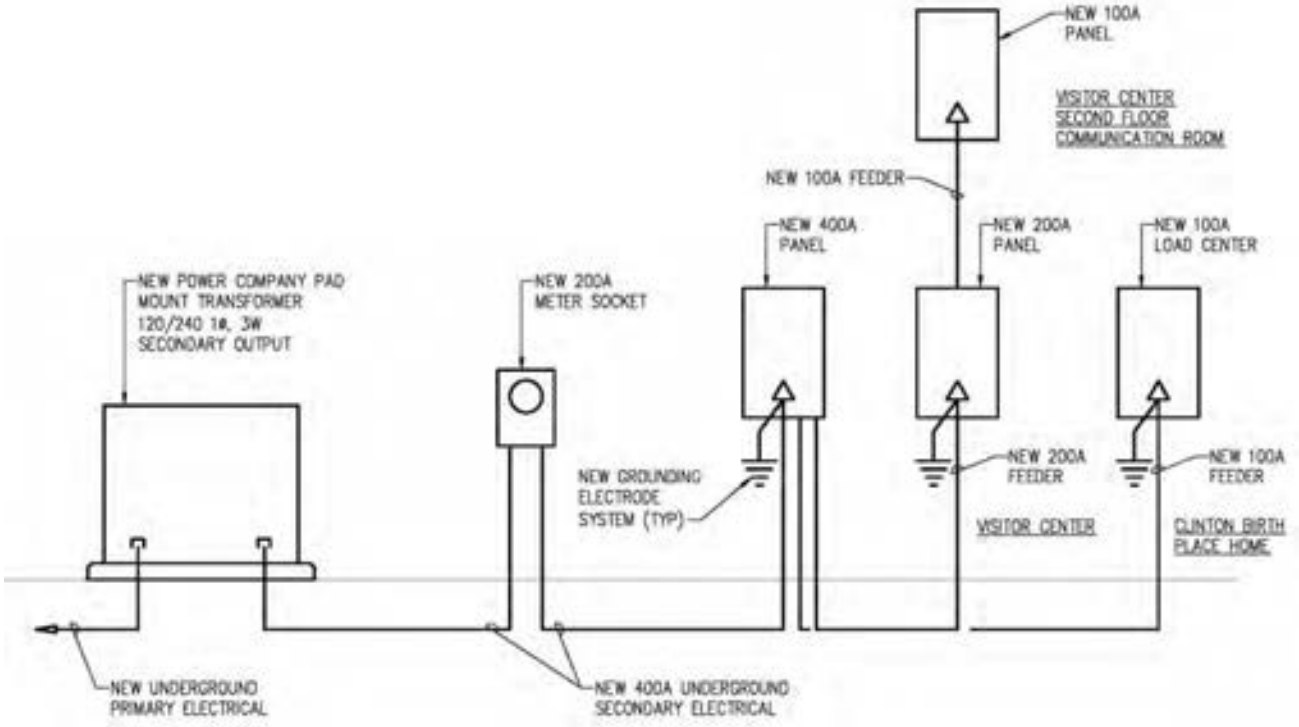

FIGURE 485. Proposed new power distribution system for the site. The new 400 amp panel would be located in the comfort station.

Visitor Center Recommendations

Exterior

Much of the exterior distress observed at the visitor center relates to the poor condition of the foundation, as discussed in detail under Structure, below. The recommended foundation reconstruction (further discussed below) should be completed prior to proceeding with repairs to exterior masonry.

Safety Measures. Although the visitor center is generally in fair condition, isolated broken glazing presents a localized hazard and should be repaired. As noted in the Physical Description and Condition Assessment chapter, testing revealed that lead-based paint (LBP) is present at the first and second floor windows at three locations tested. It is assumed that most of the existing window sash and frames contain lead based paint. Lead-based paint in excess of the reporting level of 5,000 ppm was documented at:

- Second floor, interior side of window sash, 223,700 ppm
- First floor, exterior side of window sash, 14,630 ppm
- First floor, interior side of window sash, 38,780 ppm

The presence of LBP poses a hazardous condition should these surfaces be disturbed by demolition or renovation. It is recommended that further testing be conducted to confirm the extent of the LBP materials and that an appropriate abatement program be implemented.

Masonry. Areas of masonry with localized distress should be rebuilt, including removal of the existing veneer at locations of cracked, displaced, or spalled brick, and installation of new brick masonry matching the original color and pattern. At displaced locations, original brick can likely be salvaged and reinstalled. At some spall locations, new brick units matching the original size and color will be required. During masonry work, the original corrugated veneer ties should be investigated to confirm that they have appropriate connection to the wood backup wall construction.

The observed efflorescence and deteriorated mortar joints observed at the crawl space indicate recurring moisture issues at the masonry foundation. In conjunction with the structural repairs described below, the installation of a subsurface drainage system should be considered to address the issue of standing water in the crawl space. Subsurface drainage is further addressed as part of the CLR.

Windows. The original wood windows should be restored. Restoration will generally include some or all of the following tasks: stripping to remove all existing paint; replacement of cracked or broken glass; repair of deteriorated wood with compatible epoxies; replacement of missing wood components with new replica components; re-glazing all lights with new galvanized points and putty, salvaging intact existing glass to the extent possible; repainting to match the historic color scheme; and re-hanging the sash on original counterweights and pulleys with new rope cords. It is recommended that further testing be conducted to confirm the extent of the LBP materials and an appropriate abatement program be implemented.

In some locations, it may be appropriate to improve the energy performance and security of the existing window system by installing new interior storm windows. For public areas such as the bookstore and display areas, the interior storm windows could be fixed, single light, minimal-sightline units. For private office areas, operable double-hung interior storm windows are recommended to allow for passive ventilation.

In coordination with the window work, consideration should be given to extending the heating and cooling to the second floor storage spaces and removing the existing window-mounted air conditioning units. Alternately, portable air conditioning units that would sit inside the building and have a more minimal exterior appearance could be considered.

Exterior Wood. All exterior wood trim should be recoated, including roof rafters and eaves. Wood should be scraped to remove loose paint, primed, and painted to match the color scheme present during the period of significance.

Exterior Stucco. Cracked stucco gable cladding should be repaired, primed, and paint all exterior stucco to match the color scheme present during the period of significance.

Potential Restoration Work. The following restoration items can be considered as part of the long term treatment of the site but are not a current priority.

- Remove the glass block window infill at the south elevation and install new wood double-hung window sash matching other similar windows on the building.
- Conduct further research, and design and construct a replica south porch in lieu of the existing plywood infill wall and exterior trellis, to match the exterior appearance of the building during the period of significance. Some information regarding the size and configuration of this porch is provided in the 1990s drawings of the visitor center.

Interior

The main floor of the visitor center is in good condition overall. The second floor spaces are in a state of disrepair and were not significantly upgraded or rehabilitated as part of the 1997 work. If the second floor is considered for occupancy in the future, redesign and rehabilitation will be required. The spaces will require new finishes depending on the proposed use. The east storage (room 202) and the west storage (room 203) have a lower floor level than storage room 201, and an appropriate modification or transition will need to be designed. Depending on occupancy, a second route of egress may be necessary. HVAC and lighting systems will be need to be upgraded.

Typical maintenance work to sustain the interior of the visitor center in the short term will include:

- Touch up paint on wood elements as needed.
- Replace carpet in corridor (room 105), office (room 106), and office (room 108) as needed.

All future work within the visitor center should ensure the preservation in situ of the interior features that were extant during the period of significance. These features include:

- Hardwood floors in the reception area (room 102), exhibit space (room 103), bookstore (room 104), and storage area (room 201).
- Fireplace mantels located in the reception area (room 102) and exhibit space (room 103).
- Original millwork, as identified in the Physical Description and Condition Assessment chapter of this report.
- Wood plank ceiling in exhibit space (room 103).

- Interior doors and hardware that were not replaced as part of the 1997 work.

Floors. There are a variety of floor materials in the visitor center. The wood flooring of the public spaces has been maintained and is in good condition. However, the opening between the reception area (room 102) and exhibit space (room 103) was widened as part of the 1997 work, and the wood flooring was not patched where the baseplate of the wall is exposed. This portion of the wood should be patched to match the existing wood.

The wood floor of the center storage area (room 201) has not been maintained but is still in relatively good condition. If further rehabilitation occurs to the second floor, this floor should be repaired as needed.

The flooring of the other attic storage areas (room 202 and room 203) is the original wood subfloor with no finish layer. New flooring should be installed over the subfloor as part of future rehabilitation of the spaces, appropriate to the intended use of the spaces.

Walls. The walls of the east and west attic storage areas (room 202 and room 203) are finished with exposed rigid insulation that is nailed and taped into place. Prior to or during future rehabilitation at the second floor, it is recommended that the rigid insulation be removed and a more permanent and serviceable finish (such as painted gypsum board) be installed.

Prior to or during future rehabilitation of the second floor, it is recommended that the wood veneer paneling of the center storage area (room 201) be removed and the walls repaired and finished with a more serviceable finish such as painted gypsum board.

Ceilings. The ceilings of the east and west attic storage areas (room 202 and room 203) are exposed rigid insulation that was nailed and taped to the structure but which is partially detached and broken. Prior to or during future rehabilitation of the second floor, it is recommended that the rigid insulation be removed and a more permanent and serviceable finish (such as painted gypsum board) installed.

Doors. Doors should be repaired as needed. Where replacement hardware has been installed, repair the ghost outlines of former hardware.

Stairs. The finish of the stair treads and risers is worn, chipped, and deteriorated. It is recommended that the stairs be refinished. The railings and newel posts should be repaired and painted as needed.

Structural System

Foundation. The visitor center continues to experience differential movement due to the nature of local soils and the use of an unreinforced masonry foundation.

Based on the observed distress, it is recommended that issues associated with differential settlement of the masonry foundation be mitigated to extend the service life of the visitor center. Due to the absence of design drawings for the foundation and a lack of information about the actual soil conditions in the vicinity of the house, a comprehensive investigation of the soils and the foundation below grade, including inspection openings, should be performed. See Recommendations for Further Research at the end of this chapter.

Depending on findings from additional investigation, one approach would be to replace the existing foundation with new reinforced concrete walls, piers, and spread footings of appropriate size and depth. The new foundation system would be clad in brick where it extends above grade to retain the appearance of the original masonry wall. This approach has been

considered for the purpose of providing a cost estimate.

If confirmed to be appropriate based on further investigation, an alternate approach would be to repair and underpin the existing masonry foundation. As part of the underpinning and repair approach, cracked or displaced portions of the foundation should be repaired and repointed. Similarly, the parge coating should be repaired at missing or delaminated locations. The approach to this repair will vary depending on the foundation repair or replacement design.

The structural design of the foundation reconstruction or repair would need to be coordinated with design of temporary shoring, site and landscaping protection and repairs, possible utility disconnection and reconnection, and possible repair or reconstruction of non-original universal accessibility ramps. Under any foundation reconstruction or repair approach, the installation of a subsurface drainage system should be considered. Archeological investigations will be required prior to any ground disturbance related to foundation work.

In the short term, it is suggested that cracks at the exterior of the masonry foundation wall be filled with sealant to prevent water infiltration.

Floor Framing. The notched joist condition will require reinforcement, especially at locations where splitting is observed to be propagating from the bearing ends of joists. Notched joists of this configuration were commonly used in nineteenth and early twentieth century construction, but this bearing detail is now known to significantly reduce the overall capacity of the joist. Supplemental wood or metal elements such as prefabricated galvanized metal joist hangers should be added to reinforce these connections.

In addition, joists should be repaired at locations where the joist has been cut to accommodate plumbing and other utilities. These cuts through the joist, which were observed to occur at the tension face of the joist near midspan, may significantly reduce the load-carrying capacity of the joist. Repairs to floor framing should be coordinated with foundation work.

Roof Framing. The vertical member that was observed to be detached from the collar tie of the roof framing should be reattached. This framing member cannot perform as intended if it is not properly connected.

All locations where framing is found to have significant section loss, breaks, or severe splits and checks should be repaired in order to maintain the structural integrity of the framing system.

The investigation for this report was a general visual inspection of limited areas, and was not intended to determine the exact capacity of the framing systems. (A limited structural evaluation of the second floor of the visitor center was conducted to support programmatic and space needs assessment, as further discussed below.) A more thorough investigation of the foundation and first and second floor framing be conducted to confirm assumptions about the overall conditions of the structure and to determine whether any strengthening is required. The structure should be repaired as necessary to maintain the capacity and serviceability of the wood framing.

Mechanical Systems

With continued maintenance, no specific work is recommended at this time for the HVAC and plumbing systems for the visitor center first floor. At the end of the systems' useful life, the furnaces, condensing units, and heat pumps should be removed and replaced. For the HVAC systems, replacement would be expected to be

required in approximately fifteen to twenty years.

Future Alternate Mechanical System: Geothermal Heat Pumps. Similar to the Cassidy House, the visitor center grade-mounted packaged gas-fired heating and DX cooling unit could be replaced with a geothermal heat pump system, thus eliminating the need for the existing grade-mounted packaged unit. The existing packaged unit is currently hidden behind existing shrubbery adjacent to the visitor center. With work that has been identified to improve site drainage around the visitor center, the existing shrubbery has been identified to be removed, which would expose the packaged heating and cooling unit serving the visitor center to view. A GSHP system would provide a system that is less visually intrusive to the historic site.

The well field described as part of the Cassidy House alternate geothermal heat pump system could also be provided with the necessary vertical wells to support a GSHP system for the visitor center. Similar to the Cassidy House well field, a determination of the number of wells required would be based on the results of a subsoil conductivity test. If the test well were able to yield for example a 0.75 to 1-ton capacity per well, the estimated number of wells required to serve the visitor center first and second floors would be approximately eight wells, spaced 20 feet apart. Archeological investigations will be required prior to any ground disturbance related to installation of a GSHP system.

As the packaged heating and cooling equipment serving the visitor center is currently located outdoors, space would have to be coordinated and provided within the visitor center to locate new heat pump units, piping and associated water distribution pump. As air distribution ductwork serving the first floor of the visitor center is located at the crawl space below the first floor, ductwork from any new heat pump to serve the first floor of the visitor center would need to be routed back to the crawl space below the first floor, where it could be then connected back to the existing ductwork systems. The second floor of the visitor center could also be served by a heat pump unit, with the heat pump located at the second floor and with new supply and return air ductwork installed at the second floor attic spaces, ducted back to the second floor rooms. The pathway for supply and return piping for any second floor heat pump would need to be coordinated with the any proposed architectural changes to existing walls and ceilings to minimize any demolition and repair of walls and ceilings associated with the mechanical installation.

Second Floor HVAC. To make the visitor center second floor more viable for office and storage space use, the existing window air conditioning units should be removed and new HVAC equipment provided. To address the park's program goal of providing an information technologies (IT) room at the visitor center second floor, any new IT room added at the visitor center second floor should be provided with its own independent HVAC system. This would allow independent zone control of the IT room, separate from the remainder of the second floor rooms.

Possible systems as alternatives to a geothermal heat pump system to serve the visitor center second floor could include any of the following options:

Option 1 - Ductless Split-Systems. This system option would include independent ductless, split-systems (one system per room) with DX cooling and electric heat. The systems would utilize indoor evaporator units and exterior grade-mounted air-cooled condensing units. Control of the systems would be through wireless control thermostats (one per system).

Option 2 - Gas-Fired Furnace/Condensing Unit. This system option would include a single gas-fired furnace located in a closet at the second floor mated with a grade-mounted, air cooled condensing unit. Any second floor IT room would be provided with its own independent ductless split system for independent zone control.

This option would require that new insulated supply and return ductwork be installed in the attic spaces to serve the second floor rooms with control of the furnace system through one control thermostat.

Plumbing Water Heating. Park maintenance personnel requested removal and replacement of the existing under-counter electric water heater serving the single counter-mounted sink. The sink would then be served by an under-counter, tankless, instantaneous water heater similar to the water heaters serving the lavatories in the comfort station.

Fire Protection. As the visitor center is primarily of wood construction, a fire at this facility could easily damage or destroy the building. Preservation of the visitor center and its contents is important to the function of the National Historic Site. Therefore, consideration should be given to installation of a fire protection system at the visitor center.

As the visitor center has an attic space which is subject to freezing conditions, a dry-pipe fire protection system would be recommended for the entire building. As with the Cassidy House, a new fire utility would need to be provided to the building with coordination required to determine an appropriate utility entrance location. Piping and sprinkler head locations would require close coordination with architectural elements and existing construction. Pipe routing vertically up through the building would need to occur using existing walls eliminating the need for piping chases. Coordination of wall and ceiling demolition and repair would be necessary where horizontal and vertical piping were to be installed.

Electrical Systems

Primary Power Distribution. Refer to the commentary under the Cassidy House section.

Electrical Service. It is recommended that the existing underground secondary electrical feeder be disconnected and abandoned, and the existing 200-amp meter pedestal and 200-amp load center be removed.

A new 120/240-volt, 200-amp, single-phase, three-wire, forty-two-pole panel should be installed in a dedicated space. This new panel would serve lighting, receptacles, and HVAC loads. A new 200-amp underground feeder would be provided to the new 400-amp panel in the comfort station (refer to Figure 484 and Figure 485).

Also, a 100-amp panel should be provided on the second floor with a 100-amp feeder down to the new 200-amp panel. This panel on the second floor would serve future communication equipment.

Interior Wiring. The existing NMC wiring should be removed. In walls and ceilings where new wiring needs to be fished, metal-clad cable should be used. In areas where new wiring can be exposed, individual copper conductors with THHN/THWN insulation inside of electrical metallic tubing (EMT) should be provided.

Grounding. At the new 200-amp panel, a new grounding electrode system should be provided. The grounding electrode system would be connected to the metallic water main and copper-clad driven ground rod.

A copper ground bar should be installed on second floor, with a ground wire connection down to the new grounding electrode system.

This new ground bar would be used as a grounding connection point for future communication equipment.

Exit Lighting/ Emergency Lighting. Exit lights should be added over the two outside exit doors and on the second floor near the stairs.

Emergency lighting should be added near the two exit doors, exhibit area, book store, hallway, stairwell, and at one location on the second floor.

Lighting. New energy efficient lighting should be provided to be compatible with interior treatment recommendations. Additional lighting should be added for interpretive displays. Automatic and day lighting controls should be installed.

Devices. Additional receptacles with additional branch circuits should be added in the office areas. Dedicated receptacles should be provided for the copy machine and for other uses in room 107.

Fire Alarm/ Intrusion Alarm System. The existing stand-alone battery powered smoke detectors should be removed, as well as the existing security system, including control panel, smoke detectors, motion detectors, door contacts, associated wiring, and transmitter. A new combination fire alarm/intrusion alarm system should be provided, including control panel, smoke detectors, fire alarm ADA horn/strobes, motion detectors, door contacts, associated wiring and automatic dialer. This is a critical issue.

Outside security CCTV cameras should be provided to monitor the site. The cameras could be mounted high on the wall or mounted on poles. Recording equipment and monitor should be provided. This equipment should be located with other communication equipment.

Communication System. The west end of second floor should be converted into a dedicated communication room. The communication room would include the following improvements: new lockable door, plywood walls, new lighting, dedicated electrical panel, surge suppression, additional receptacles with dedicated branch circuits, ground bar, dedicated HVAC mini-split cooling system, and communication rack. The exact location and design of this communication room should be coordinated with other proposed architectural and structural work at the second floor of the visitor center.

There is an upcoming project to provide a new Category 6 communication system to the building. The new rack is proposed to be located in the copy room. It is recommended that enough slack cable be provided in the copy room to allow it to be rerouted to the new communication room on the second floor.

Comfort Station Recommendations

Exterior and Structural System

The cracking at the northeast and northwest edges of the slab-on-grade should be investigated further. It is possible that this condition is a result of differential movement between the brick walls, which expand over time, and the concrete slab, which shrinks over time. This dissimilar movement can build up stresses at the brick/concrete interface and cause cracking. Another possible cause is differential settlement of the slab-on-grade. While the slab does not require repair in its current condition, the slab should be monitored for further development of cracking.

The cracking observed in the masonry near the west lintel is likely either caused by corrosion where the steel lintel is embedded within the wall or by differential settlement of the building. The cracks should be sealed to prevent water infiltration, which can lead to accelerated corrosion of the lintel. The cracks should be monitored for further distress.

Interior

The condition of the interior of the comfort station is good overall. Only normal maintenance and housekeeping are required.

Mechanical Systems

With continued maintenance, no specific work is recommended at this time for the HVAC and plumbing systems for the comfort station. At the end of the systems' useful life, the furnaces and condensing units should be removed and replaced. For the HVAC systems, replacement would be expected to be required in approximately fifteen to twenty years. The plumbing systems for the comfort station should have an expected additional useful life of about fifteen to twenty years, similar to the HVAC systems.

Electrical Systems

Primary Power Distribution. Refer to the commentary under the Cassidy House.

Electrical Service. In the storage room, a 120/240-volt, single-phase, three-wire, 400-amp panel should be provided. This panel would serve the electrical loads in the comfort station, as well as serving the Cassidy House with a 100-amp feeder and the visitor center with a 200-amp feeder. This is a critical issue.

The secondary electrical underground feeder should be routed from the new power company pad-mounted transformer through a 400-amp meter socket and then to the new 400-amp panel. The electrical meter would measure power consumption for the entire historic site (refer to Figure 484 and Figure 485). This is a critical issue.

The new 400-amp panel will have a 400-amp main breaker, integral surge suppression, and branch circuit breakers.

Interior Wiring. Existing interior wiring should be removed and individual conductors be provided in EMT conduit in accessible areas. Where wiring must be fished into existing walls, individual conductors in flexible metal conduit should be provided. The new conductors shall be copper with THHN/THWN insulation.

Grounding. The new proposed 400-amp electrical service should have a grounding electrode system. This grounding electrode system should consist of a copper ground bar, grounding electrode conductors to metallic water main, and copper-clad driven ground rod.

The new proposed interior wiring branch circuits should have copper grounding

conductors with green insulation for the equipment grounding system.

Exit Lights/Emergency Lights. An emergency light should be added in each of the toilet rooms. An exterior emergency light should be added near the toilet room exit doors.

Lighting. Existing lighting fixtures should be removed and replaced with more energy-efficient LED lighting fixtures.

In each of the toilet rooms, provide occupancy sensors to control the lighting. Provide an exterior photo-cell to control the exterior lighting fixtures.

The new lighting system and controls should comply with current energy codes.

Devices. The quantity of receptacles in each of the toilet rooms and on the exterior of the building is adequate. GFCI type receptacles should be added in the storage room.

Fire Alarm/Intrusion Alarm System. It is recommended that a fire alarm/intrusion system be added to the building. Fire alarm smoke detectors should be added in each of the toilet rooms. A fire alarm heat detector should be added in the storage room. A combination fire alarm horn/strobe light should be added in each of the rooms and on the exterior of the building.

A security motion detector should be added in each toilet room and in the storage room.

This fire alarm/intrusion alarm system should report to and be monitored by the new system in the visitor center.

Programmatic Considerations

As part of the initial site and building investigations for the HSR and CLR/EA effort, brief discussions were conducted with the Superintendent of the President William Jefferson Clinton Birthplace Home National Historic Site, representatives of the Cultural Resources Division of the National Park Service Midwest Regional Office, and members of the consultant team regarding the current programmatic and administrative needs along with future interpretive program goals. These discussions were conceptual in nature and identified many deficiencies and needs that are not being met by the existing facilities at the National Historic Site.

Subsequent to the site and building investigations, the *Long-Range Interpretive Plan, President William Jefferson Clinton Birthplace Home National Historic Site* (LRIP) dated November 2012 was issued by President William Jefferson Clinton Birthplace Home National Historic Site, NPS Midwest Regional Office, and NPS Harpers Ferry Center Interpretive Planning. This draft document further clarifies and establishes future park education and interpretive programs and services. Also recently prepared was the *President William Jefferson Clinton Birthplace Home National Historic Site Foundation Document*, prepared by President William Jefferson Clinton Birthplace Home National Historic Site and dated March 2013. The *Foundation Document* serves as the "underlying guidance for all management and planning decisions for a National Park unit."

From these discussions, observations, and review of the LRIP and *Foundation Document*, the consultant team has extrapolated a preliminary program analysis to help document what space might be required to meet the future administrative and programmatic goals of the

site. This program was reviewed and tested against the NPS Facility Planning Model for accuracy and verification. While it is not the intent of this HSR to produce a full program analysis for the National Historic Site, this analysis was completed to help inform the park of the nature of the spatial needs, and to develop potential concepts to meet the park's programmatic goals. Review and discussion of these concepts with NPS will provide a basis for the development of the most appropriate HSR and CLR/EA programmatic treatment recommendations. It should also be noted that the preliminary space program discussion applies mainly to the visitor center and in a minor way to the Cassidy House but not to the comfort station.

Programmatic Deficiencies and Needs

- The existing visitor center contains approximately 1,720 net assignable square feet (NASF) on the first level that serves as the park's administrative offices and interpretive center/visitor contact center. The first floor of this former residence contains a reception entrance area (formerly the back porch), temporary exhibits area (former living room and study), bookstore/retail sales area (former dining room), superintendent's office (former kitchen), and staff office (former bedroom).

- Visitation continues to grow since NPS has administered the site by approximately 3 percent per year. In addition, the park developed a number of community programs during the first year of operation and that trend is expected to continue.

- The existing visitor center can accommodate small tour groups, with large groups over twelve to fifteen persons needing to be separated or split into smaller groups to manage them and maximize the visitor experience. Many school groups arrive with fifty to 100 students, and the existing visitor center is very limited in how visits by larger groups can be staged and accommodated. Currently visitors can access only the public areas of the first floor of the visitor center, including the bookstore, porch, and exhibit areas, which total only 1,238 square feet.

- The park limits the number of persons touring the Cassidy House to ten people at a time, also adding to the need for an adequate visitor staging and orientation area. The second floor is accessed by a single stairwell and is not universally accessible, which further limits the occupancy and use of the second floor.

- The park's museum collections are expected to grow as the park develops and implements the LRIP. Currently there is very limited storage space at the visitor center for exhibits or collections. Some second floor areas are utilized, but access is limited, there are no environmental controls, and the capacity of the structure limits the weight and quantity of items that can be stored. Files of the Clinton Birthplace Foundation are stored off-site at a community college in Hope.

- There is insufficient office space and administrative support space in the visitor center for the current level of park staff. Two full-time staff and up to four part-time staff share a 200 NASF space that also doubles as shipping/receiving area and kitchenette/break area. There is no space to accommodate staff growth associated with interpretive goals.

- There is no space at the visitor center for staff meetings, small conference space, or space to accommodate staff training or educational sessions. In addition there is no space that can accommodate distance

learning equipment to allow partnering with local and regional/national audiences. A small addition to the visitor center, possibly incorporating reconstruction of the original south porch, could be considered in order to provide space for these purposes.

- The copy room is not universally accessible and staff offices have limited accessibility.
- There is insufficient space to provide curatorial services within the existing building, and cramped staff office areas hinder the development of media and educational programs. As noted above, a small addition to the visitor center, which could incorporate reconstruction of the original south porch, could be considered in order to provide additional office and flexible conference/meeting space.
- The visitor center contains approximately 400 NASF for comprehensive exhibits. There is no space for visitors to view interpretive films or videos, and the existing space and infrastructure limit opportunities for hands-on or multi-sensory experiences. There is no space for an NPS library for research or space for traveling exhibits that could highlight important interpretive themes or special events.
- There is no space other than the gravel-paved driveway area proximate the visitor center, lawns areas, and memorial garden to facilitate dialogue or conduct sessions with large groups of students or visitors.
- Acoustic control in the visitor center is non-existent and noise from the public areas impacts staff offices. Conversely, the visitor experience is also compromised by close proximity to park offices.
- The structural systems of the Cassidy House and the visitor center have limited load capacity. The structures were originally designed for residential use, and the notched joist detail is now known to reduce the actual floor capacity below what the original builders would have assumed. The exact actual capacity is currently unknown, and structural strengthening or repair is likely required. The extent of strengthening or repair will be dependent upon the loads required for the proposed use.
- The existing visitor center does not have a restroom facility to serve the current administrative staff, although there is a comfort station with accessible restrooms on the site.
- The upper level of the Cassidy House is not currently universally accessible. Providing an accessible route for visitors to the upper floor of the Cassidy House, while feasible, would severely impact the historic fabric of the house. The LRIP calls for additional and creative ways of interpreting the second floor of the Cassidy House that may make it less important to provide universal access to the upper portion of the house, but which in turn will create the need for additional space or interpretive features.

Space Needs Analysis

In addition to interpretation provided at the Cassidy House and the overall site, the existing park interpretive and administrative functions are accommodated at the visitor center in ten spaces totaling 2,525 NASF or 2,801 total gross square feet (GSF) on two levels, as noted in Table 2 below.

In examining the current deficiencies and the goals stated in the LRIP, the following preliminary space needs summary was prepared to address future programs and activities. Also, in November 2013, the Midwest Regional Office ran the NPS Facility Planning Model to

check the space needs for a facility with annual visitation similar to that experienced at the national historic site. Both of the analyses show that to meet these long term goals, there is a need for approximately 3,900 GSF of additional space.

Table 2. Existing Space: Visitor Center

Space	*Space Classification*	*Existing NASF*	*Notes*
101	Entry/Reception	188	Doubles as vestibule/reception
102	Exhibit	482	Doubles as exhibit/waiting
103	Exhibit	318	
104	Bookstore	250	
105	Corridor	0	not listed/GSF
106	Supt Office	150	
107	Copy/Storage	107	
108	Staff Office	224	contains 3 staff offices/kitchenette and work area
	Stair	0	not listed/GSF
201	Storage	322	second floor/limited capacity
202	Storage	254	second floor/limited capacity
203	Storage	230	second floor/limited capacity
	Total Existing NASF	**2525**	
	Total Existing GSF	**2801**	*includes circulation/stairs/walls, etc.*

Table 3. Future Space Needs

Space	*Space Classification*	*Estimated NASF*	*Notes*
	Administrative Offices		
	Superintendent	150	
	Staff Offices	400	*assumes 4 workstations*
	Small Conference Room	150	*6 persons*
	Copy Room/Filing	120	
	Kitchenette/Staff Break Room	120	
	Interpretive Spaces		*as derived from LRIP*
	Gathering/Waiting	350	*for 50 persons/one bus load*
	Permanent Exhibit	800	
	Temporary Exhibit	450	
	Exhibit Storage/Support	150	
	Classroom/Training Room	500	*15 to 20 persons*
	Support Spaces		
	Library	400	
	Bookstore/Sales	350	
	Archive/Storage	400	
	General Storage	300	
	Bookstore Storage	150	
	Staff Rest Room	80	
	IT/Server Room	40	
	Janitorial	40	
	Total Estimated NASF	**4950**	
		1730	*circulation/gross factor of 35%*
	Total Estimated GSF	**6680**	
	Difference Future vs. Existing	**3879**	**GSF**
		2425	**NASF**

Approach to Solving Space / Programmatic Needs

Based upon key principles in the *Foundation Document*, the LRIP interpretive goals, and the HSR/CLR team's evaluation of the significance of site and structures, the development of alternatives to meet the programmatic space needs is based on the following assumptions:

- The Cassidy House will remain as the most important and significant resource for interpretive programs. It will continue to be the core of the visitor experience.
- The visitor center will continue to be used for visitor contact and administrative usage for the foreseeable future. As modifications to address the need to expand programs and provide additional space are implemented, the visitor center will be used for park administration and a new visitor contact facility will be constructed.
- It is assumed in this analysis that the comfort station will remain as the main public restroom facility for the National Historic Site and will also provide the necessary facilities maintenance and equipment storage. Some additional facilities maintenance areas may be needed in the future and can be programmed into future facilities once a final concept alternative and space needs are defined.

Preferred Concept Options/Alternatives

Four potential Treatment Alternatives (including a No Action Alternative) to address the future space program needs for the national historic site were presented and discussed as part of development of the CLR/EA. (Please refer to the CLR/EA report for additional discussion and details regarding the treatment alternatives.) The alternatives investigated included:

Treatment Alternative 1 – No Action. In this alternative the management of the site including the Cassidy House environs would continue in accordance with NPS policies and standards. The site and grounds remain essentially in their existing configuration.

Treatment Alternative 2 – Scene Restoration. In this alternative the entire national historic site would be revitalized by enhanced and new facilities and programs that support the opportunities to learn about and be inspired by the life and accomplishments of William Jefferson Clinton. The grounds would contain new facilities to approximate the spatial character of the setting of the Cassidy House during the period of significance. A visitor contact station would be placed in a new facility, and park administration would be positioned in the existing visitor center house.

Treatment Alternative 3 – Redeveloped Grounds. In this alternative, as in Alternative 2, the entire national historic site would be revitalized by enhanced and new facilities and programs that support the opportunities to learn about and be inspired by the life and accomplishments of William Jefferson Clinton. A new visitor contact facility would be placed in a new building located on the site of the current memorial garden but would not take the shape/footprint of the former house; instead, it would have a more contemporary expression that is compatible with the rehabilitation of the site.

Treatment Alternative 4 – Adaptive Reuse. In this alternative the Cassidy House and grounds would be rehabilitated to support the programmatic opportunities, but the current visitor center would be adaptively reused and expanded to house both visitor contact and park administration functions.

A meeting of NPS and CLR/EA/HSR project team members, including Contracting Officer's Technical Representatives, the National Historic Site Superintendent, and BVH, WJE, and Oculus personnel, was held on November 15, 2013, to review the treatment alternatives. At this meeting, Treatment Alternative 3 – Redeveloped Grounds, was chosen by NPS as the preferred alternative to be included in the CLR/EA. This alternative was considered to best address the long-term spatial needs for the park's programs as well as providing a comprehensive vision for overall landscape and park management.

Recommendations for Further Research

- Complete a more detailed structural investigation and analysis of the floor framing of the Cassidy House and visitor center, including inspection openings to verify span lengths, spacing, support conditions, and connections, as well as to visually grade the wood.
- Complete a geotechnical soils study for the site, including sampling at both the visitor center and Cassidy House. Conduct archeological documentation and mitigation during this work as required.
- Complete a foundation investigation for the site, including test pits to study the condition of foundation walls and footings below grade at both the visitor center and Cassidy House. Conduct archeological documentation and mitigation during this work.
- Further finishes sampling and analysis is recommended of surviving original wood features of the Cassidy House, to provide additional information on finishes present during this period.
- Perform a finishes analysis of exterior painted elements (windows, trim, stucco) of the visitor center, to determine likely colors and finishes present during the period of significance.
- Conduct further testing to confirm the extent of the LBP materials and develop an appropriate abatement program.

- Conduct further detailed space analysis to verify the programmatic needs as identified in the Long Range Interpretive Plan and to coordinate the impact upon the preferred treatment alternative for the cultural landscape.

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Appendix A

Drawings

NATIONAL PARK SERVICE

PRESIDENT WILLIAM JEFFERSON CLINTON
BIRTHPLACE HOME
NATIONAL HISTORIC SITE
EXISTING CONDITIONS

DRAWING INDEX

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OCULUS
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(434) 220-9392

MARK	SHEET	REVISED	SHEET	MARK

APPROVED _____ DATE
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REVIEWED _____ DATE
REVIEWED _____ DATE

Historic Structures Report
Cultural Landscape Report/ Environmental Assessment

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
MIDWEST REGIONAL OFFICE

President William Jefferson Clinton
Birthplace Home
National Historic Site

Hope, AR

DRAWING NO. 732 116051
PKG. NO. ___ ___ ___
SHEET 1 OF 9

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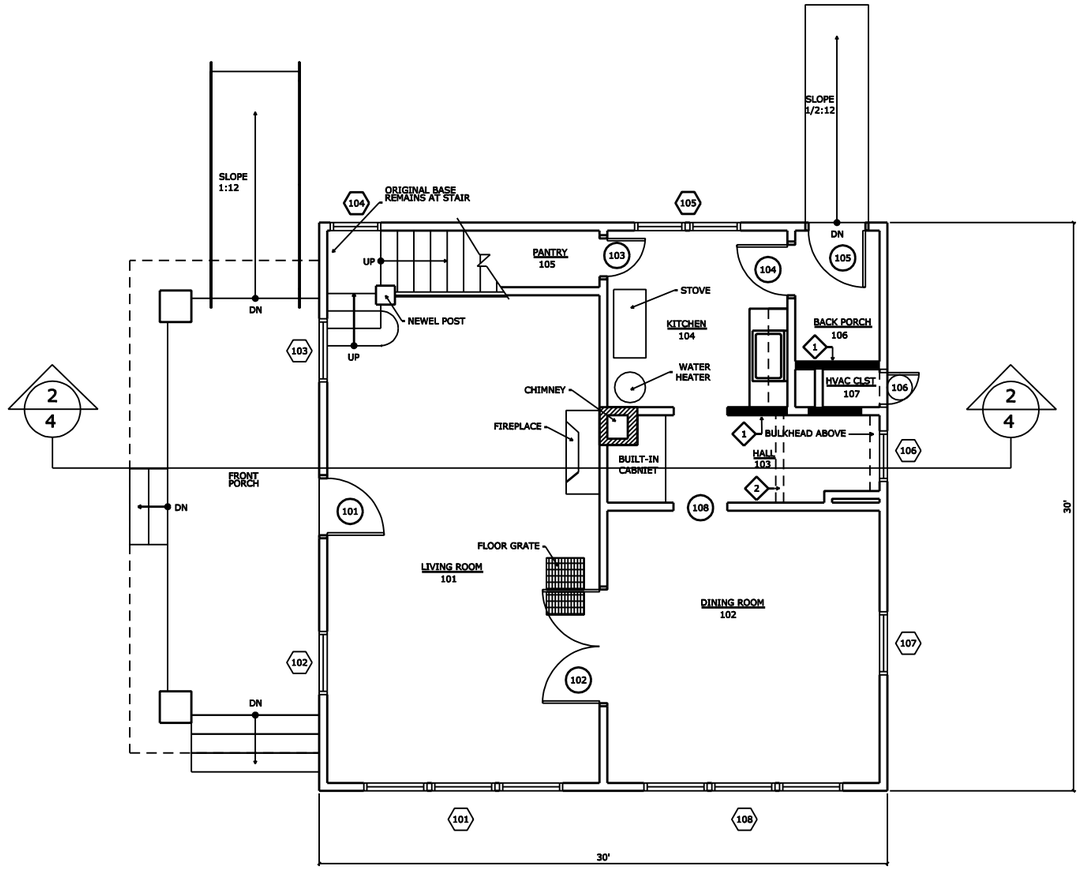
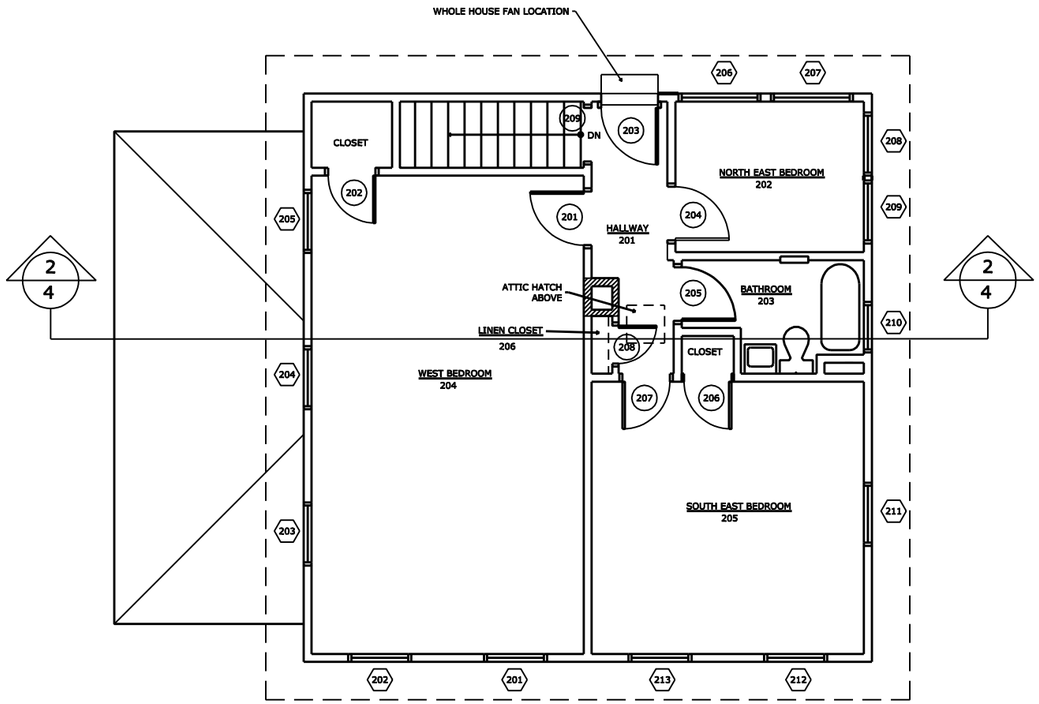


1 CASSIDY HOUSE
FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"

KEYNOTES:

1 WALLS ADDED AS PART OF 1995-1996 WORK

2 WALLS REMOVED AS PART OF 1995-1996 WORK



2 CASSIDY HOUSE
SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"

0 2" 4" 8" 12"

SCALE OF FEET

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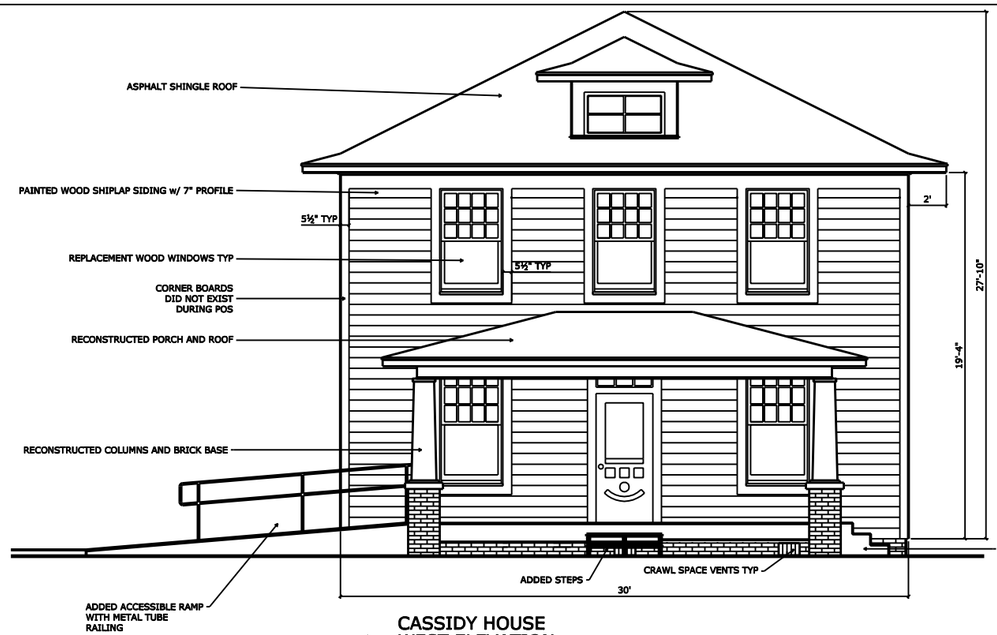

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WEST ELEVATION
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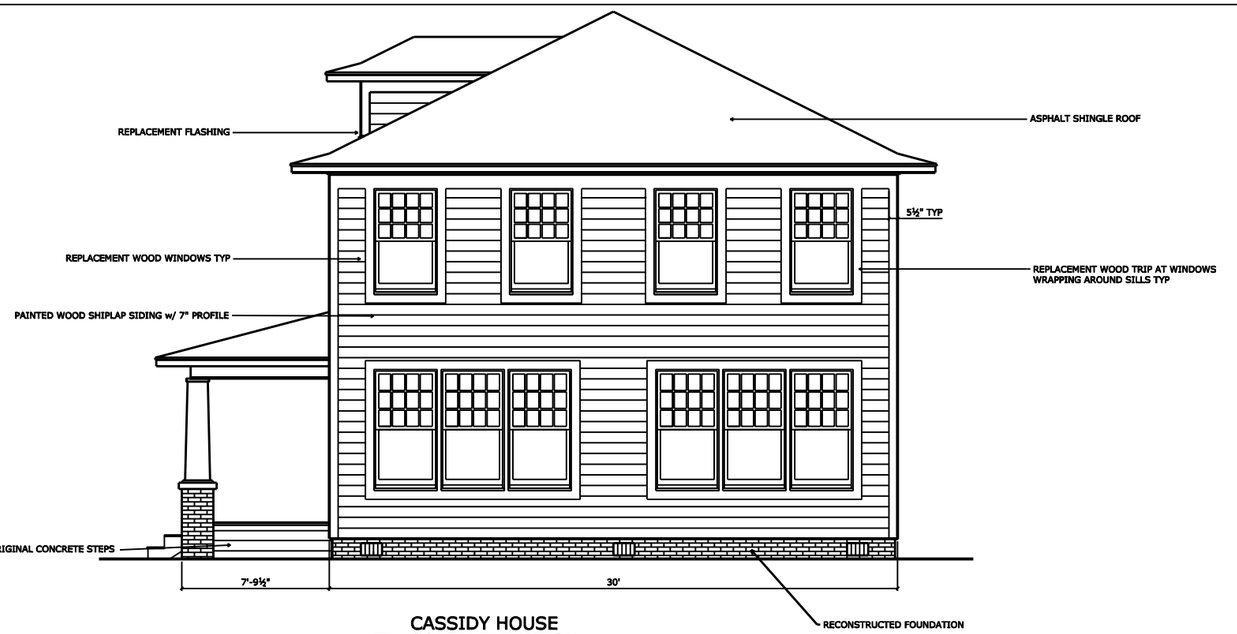

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SOUTH ELEVATION
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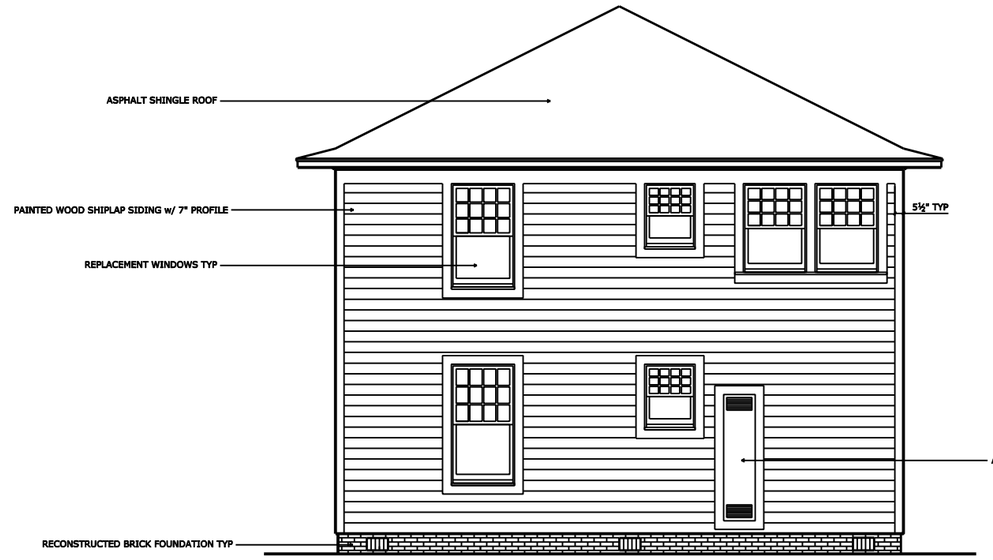

3 CASSIDY HOUSE
EAST ELEVATION
SCALE: 1/8"=1'-0"

4 CASSIDY HOUSE
NORTH ELEVATION
SCALE: 1/8"=1'-0"

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SCALE OF FEET

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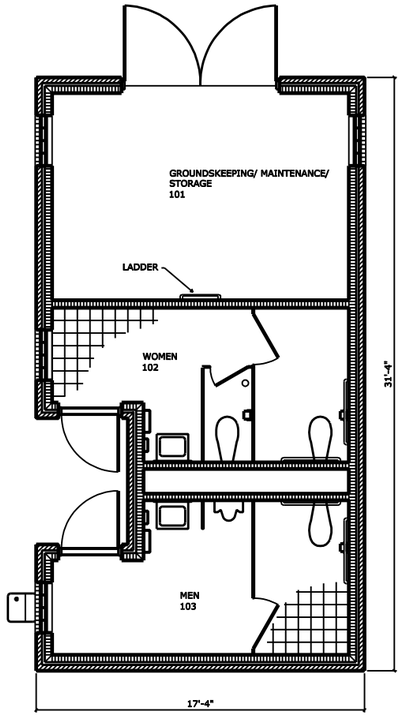

COMFORT STATION FLOOR PLAN
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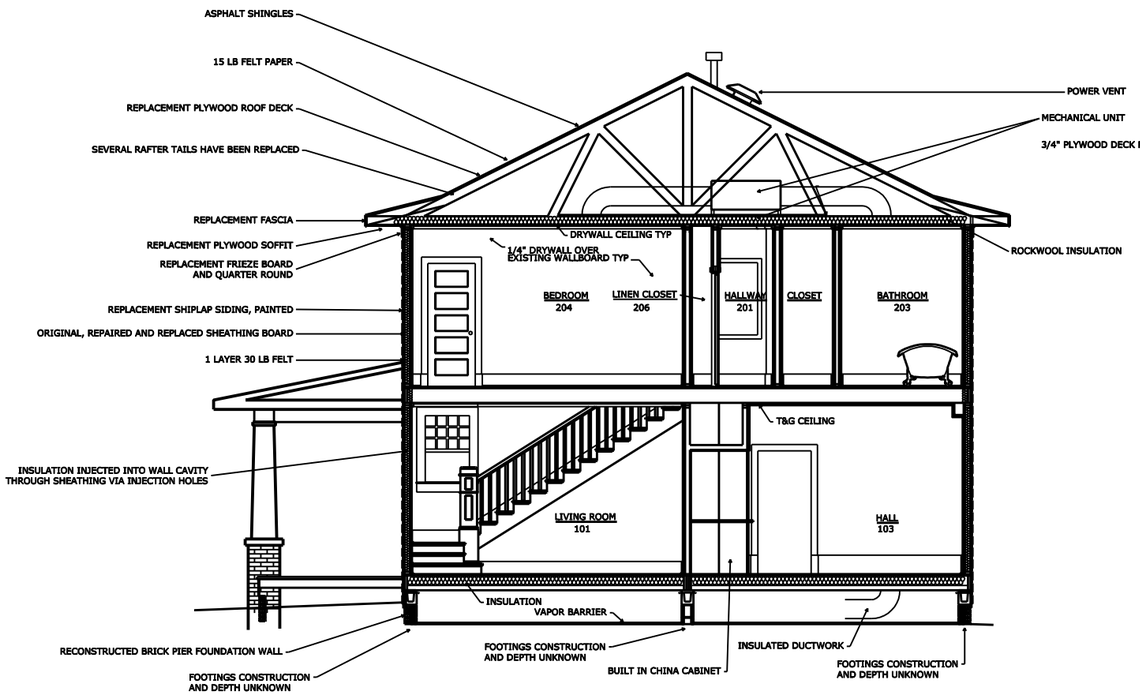

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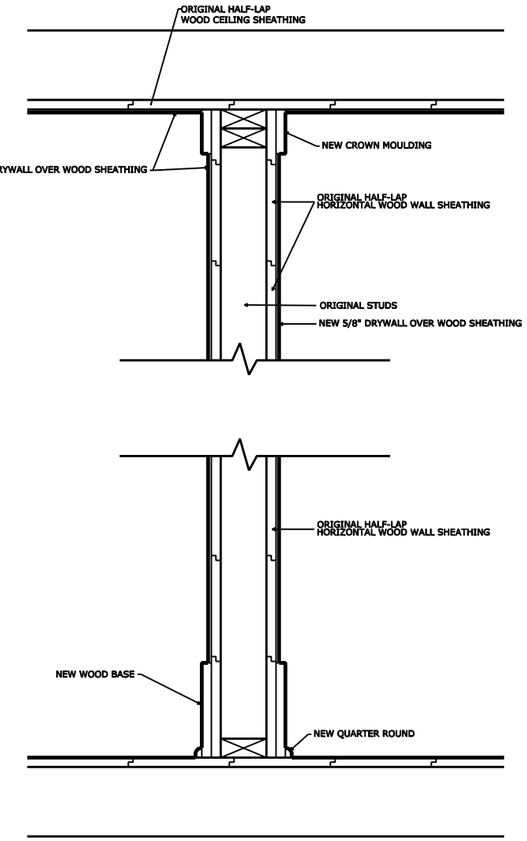

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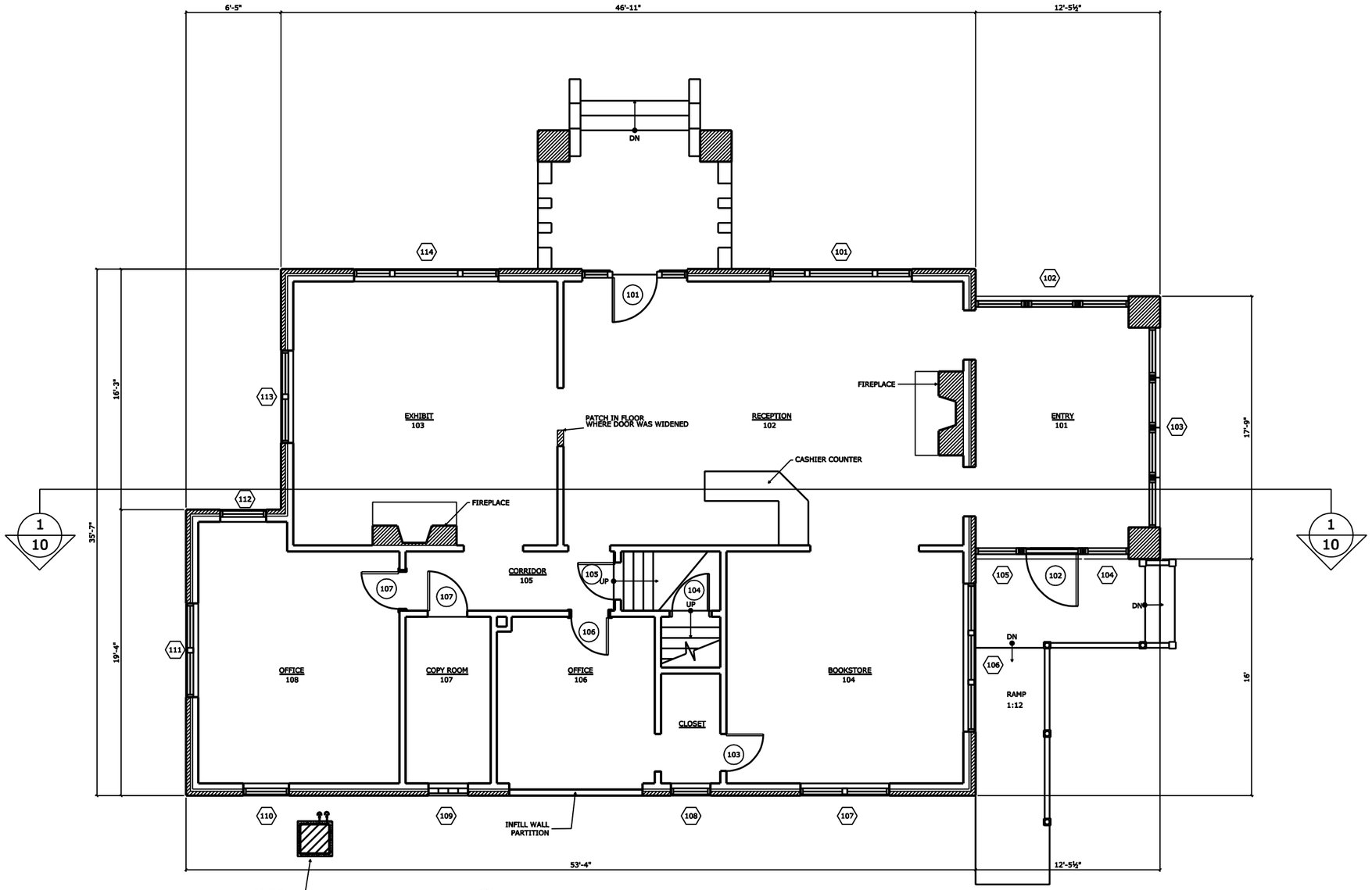

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FIRST FLOOR PLAN
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SCALE OF FEET

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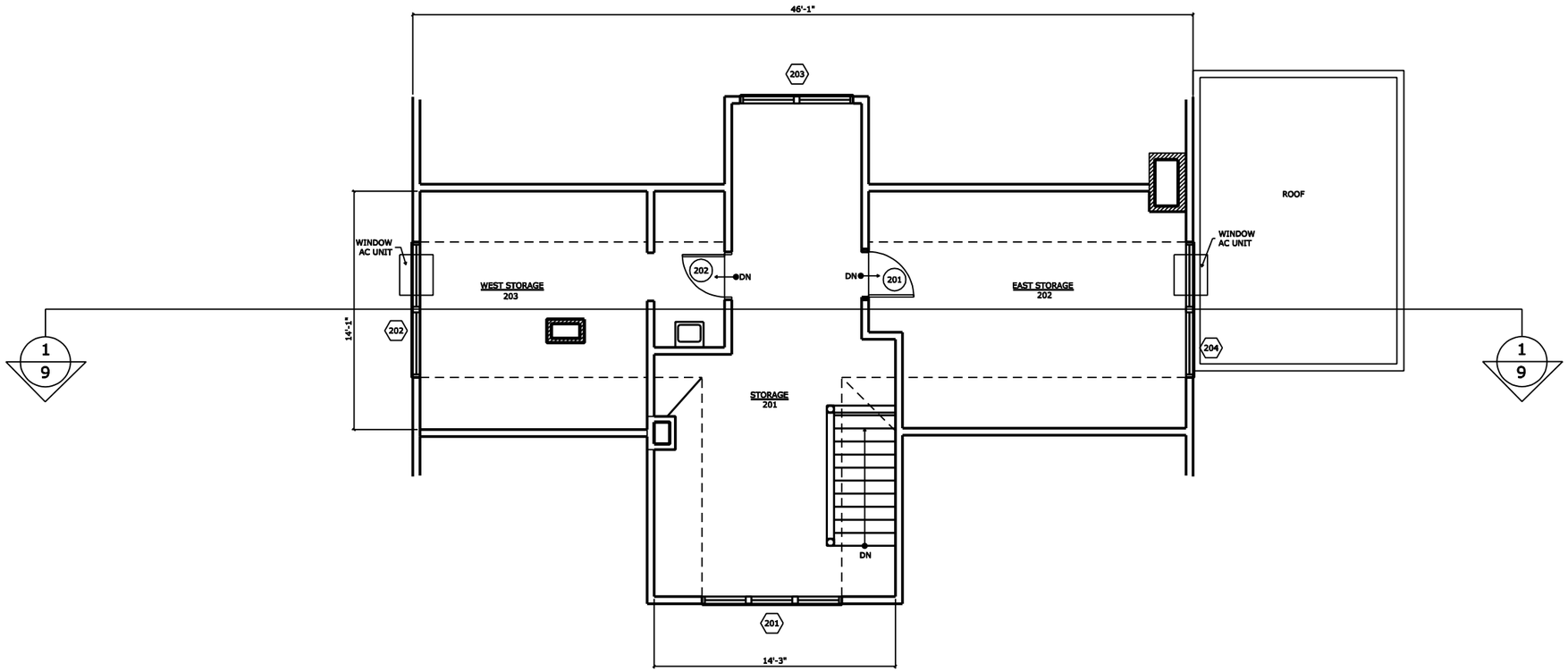

VISITOR CENTER
SECOND FLOOR PLAN
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SCALE OF FEET

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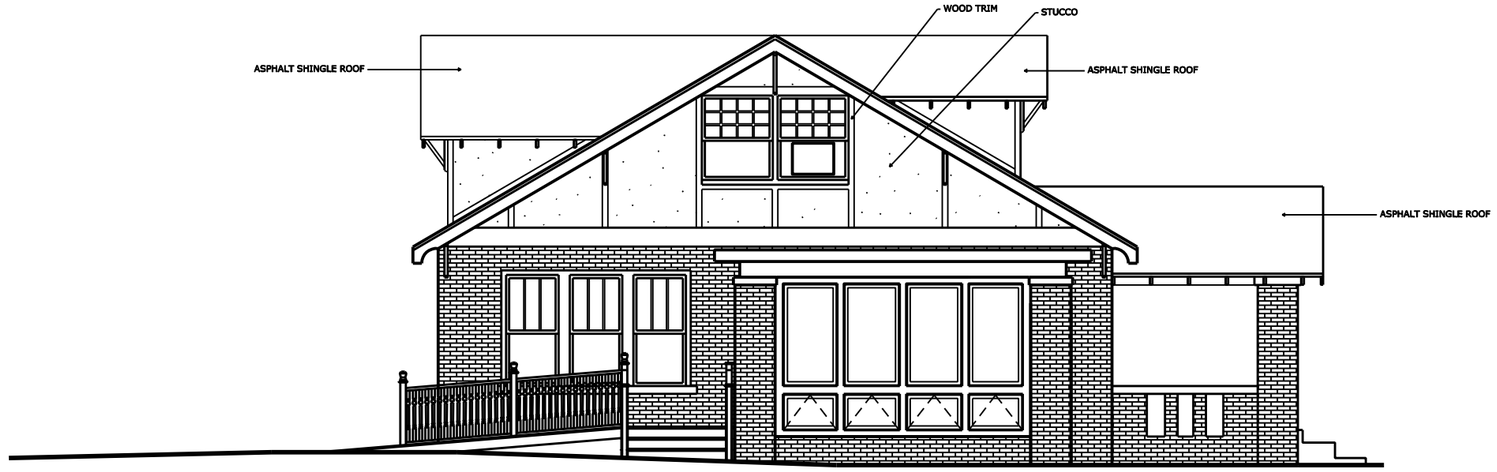

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SOUTH ELEVATION - VISITORS CENTER
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SOUTH ELEVATION - VISITORS CENTER
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SCALE OF FEET

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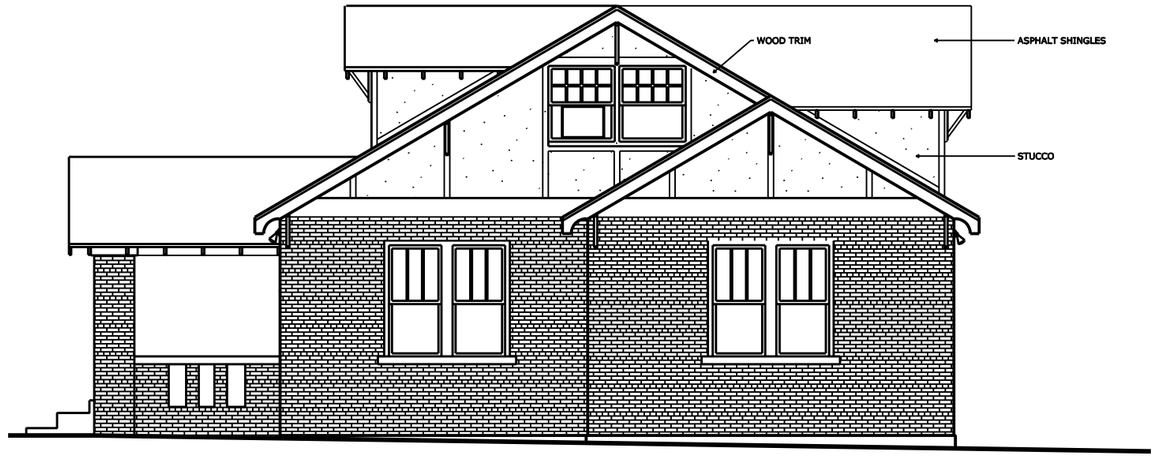

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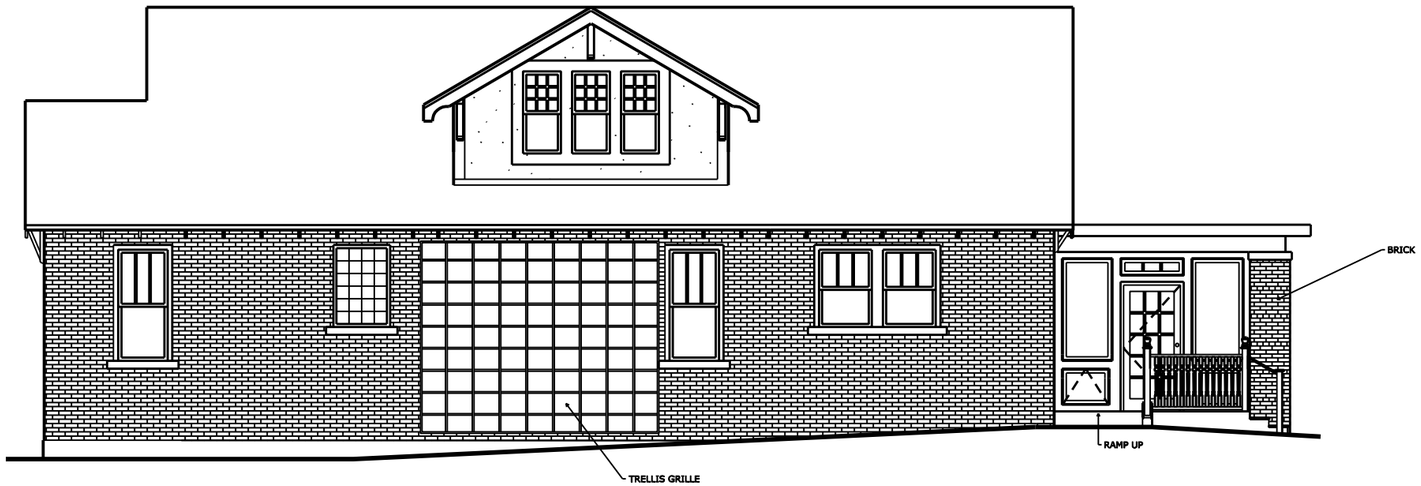

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SOUTH ELEVATION
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DESIGNED: GM DRAWN: GM TECH. REVIEW: K1 DATE: 11/01/13	SUB SHEET NO. A7	TITLE OF SHEET PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE VISITOR CENTER EXISTING CONDITIONS	DRAWING NO. 732 116051 PMIS/PKG NO. SHEET 8 OF 9

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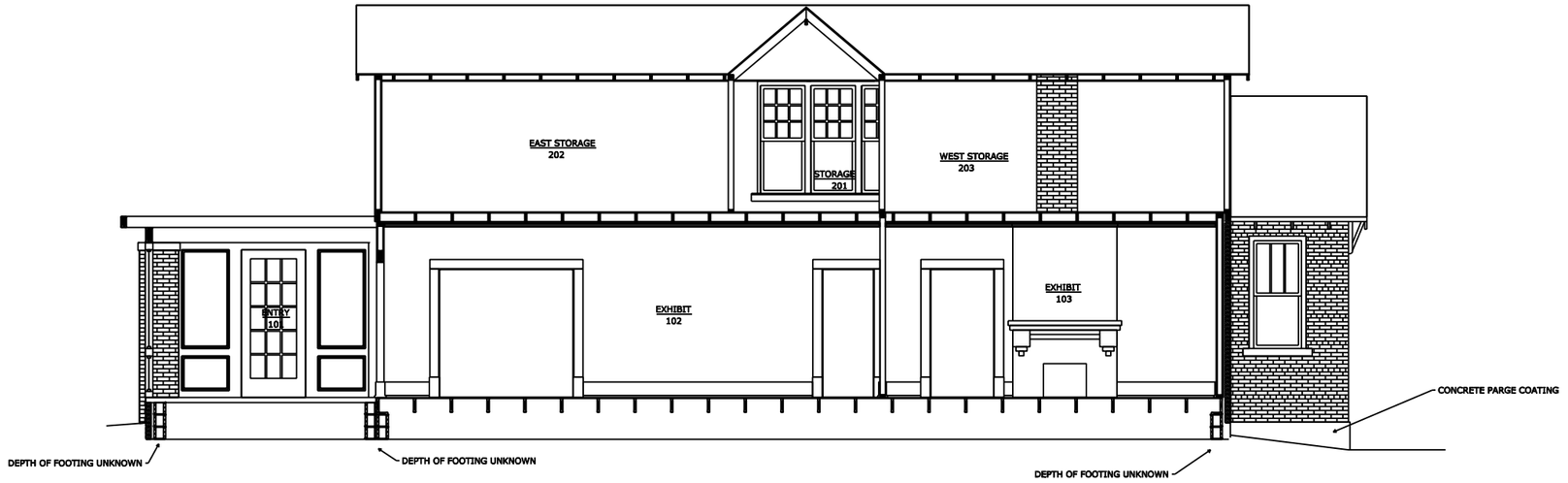

1 VISITOR CENTER SECTION
SCALE: 1/8"=1'-0"

0 2' 4' 8' 12'
SCALE OF FEET

DESIGNED: GM DRAWN: GM TECH. REVIEW: K1 DATE: 11/01/13	SUB SHEET NO. A8	TITLE OF SHEET PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE VISITOR CENTER EXISTING CONDITIONS	DRAWING NO. 732 116051 PMIS/PKG NO. SHEET 9 OF 9

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NATIONAL PARK SERVICE

PRESIDENT WILLIAM JEFFERSON CLINTON
BIRTHPLACE HOME
NATIONAL HISTORIC SITE
TREATMENT RECOMMENDATIONS

DRAWING INDEX

ARCHITECTURAL CONSERVATOR
WISS JANNEY ELSTNER ASSOCIATES, INC.
10 SOUTH LASALLE STREET, SUITE 2600
CHICAGO, IL 60603
(312) 372-0555

ARCHITECT
BAHR VERMEER HAECKER ARCHITECTS
440 N 8TH STREET STE 100
LINCOLN, NE 68508
(402) 475-4551

LANDSCAPE ARCHITECT
OCULUS
108 SECOND STREET. NW # 36
CHARLOTTESVILLE, VA 22902
(434) 220-9392

MARK	SHEET	REVISED	SHEET	MARK

APPROVED _____ DATE
REVIEWED _____ DATE
REVIEWED _____ DATE
REVIEWED _____ DATE
REVIEWED _____ DATE

Historic Structures Report
Cultural Landscape Report/ Environmental Assessment

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
MIDWEST REGIONAL OFFICE

President William Jefferson Clinton
Birthplace Home
National Historic Site

Hope, AR

DRAWING NO. 732 116054
PKG. NO. ___ ___ ___
SHEET 1 OF 7

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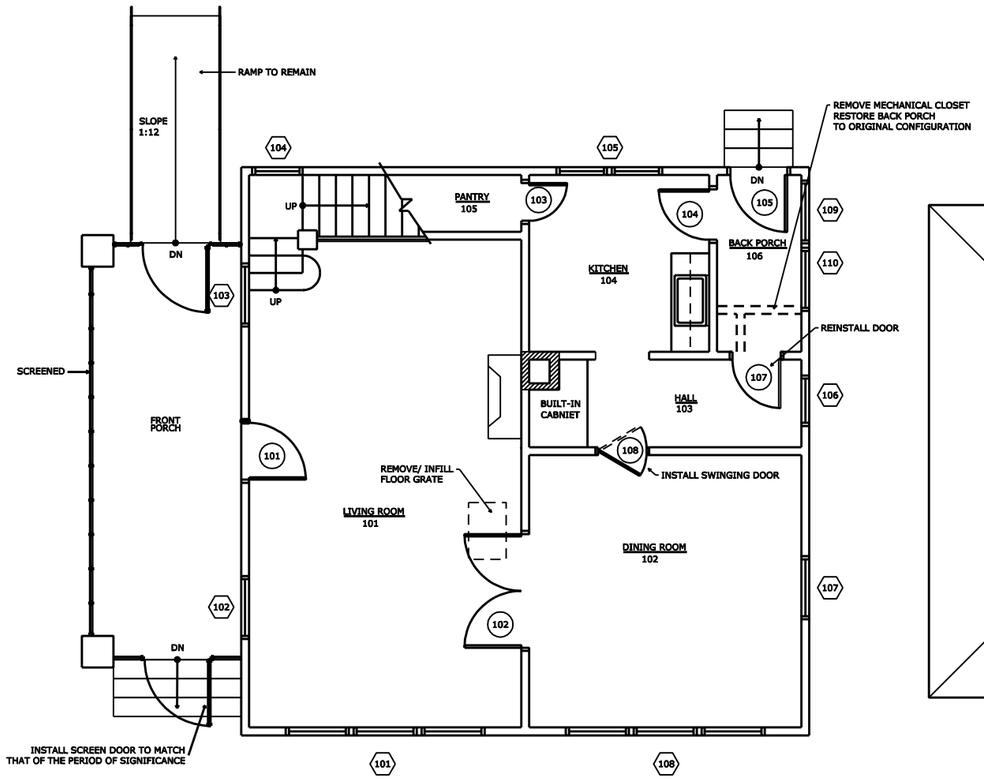
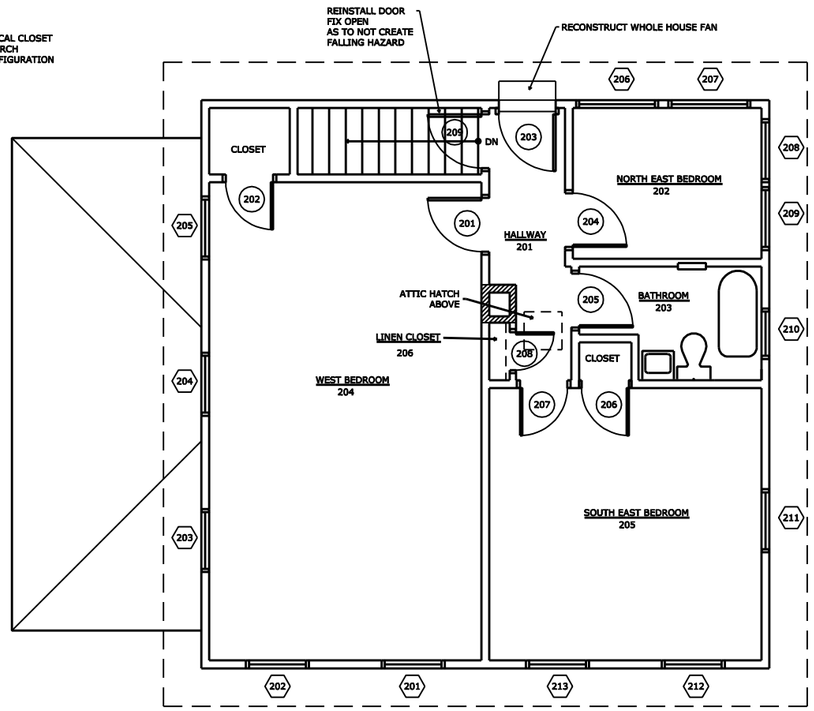


1 CASSIDY HOUSE
PROPOSED FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"



2 CASSIDY HOUSE
PROPOSED SECOND FLOOR PLAN
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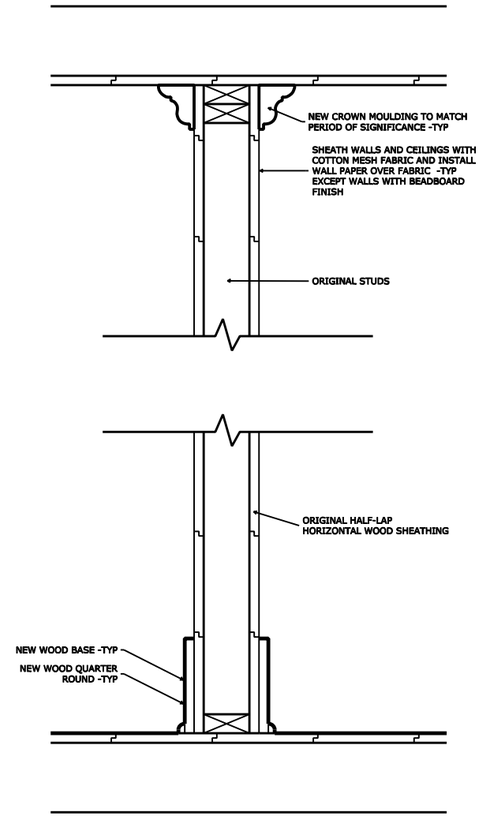
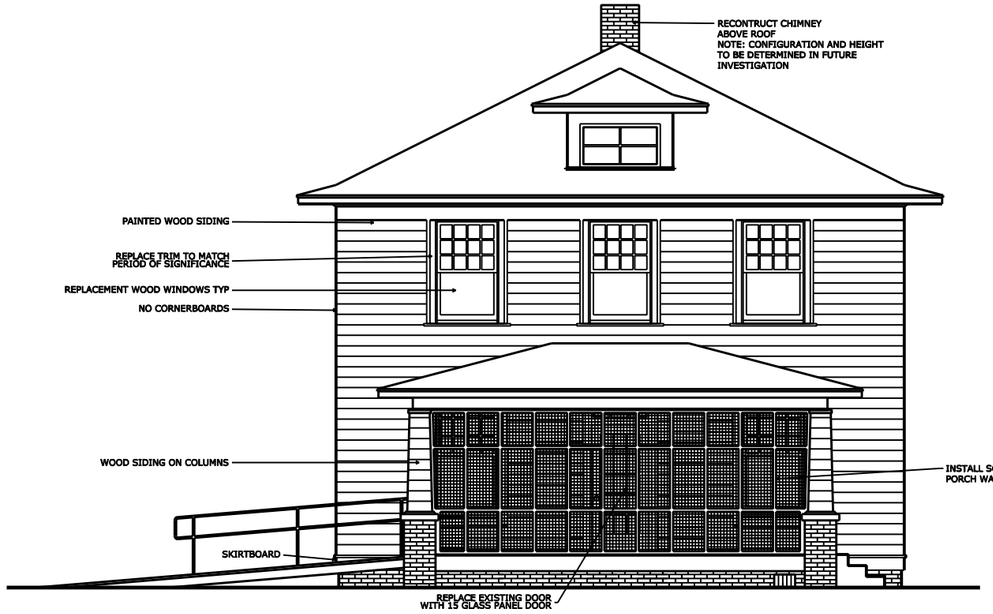


3 CASSIDY HOUSE
PROPOSED TYPICAL WALL BASE AND CORNICE MOULDING DETAIL
SCALE: 1"=1'-0"

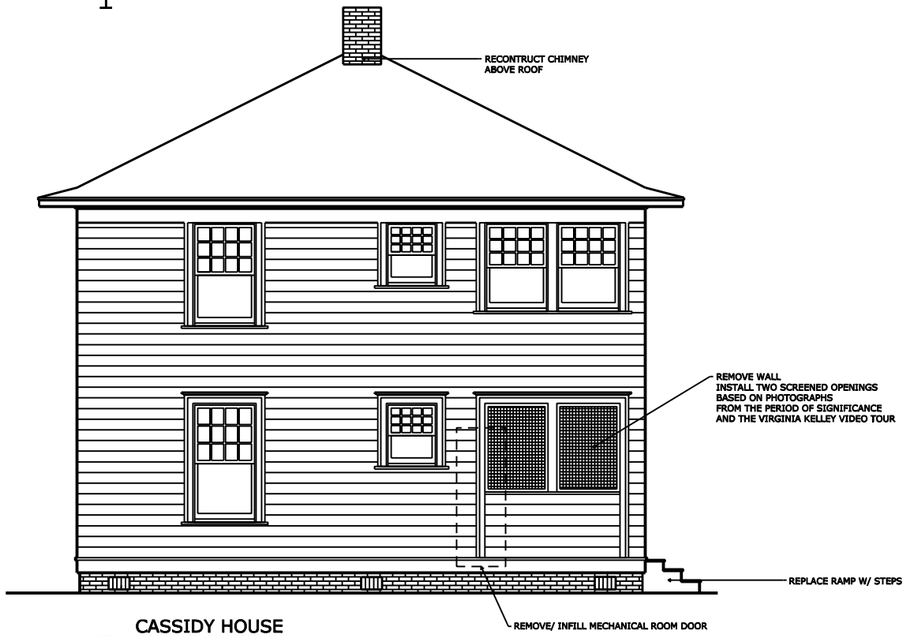
0 2' 4' 8' 12'
SCALE OF FEET

DESIGNED: GM DRAWN: GM TECH. REVIEW: K1 DATE: 11/01/13	SUB SHEET NO. A1	TITLE OF SHEET PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE CASSIDY HOUSE PROPOSED FLOOR PLANS	DRAWING NO. 732 116054 PMIS/PKG NO. SHEET 2 OF 7



1 CASSIDY HOUSE
WEST ELEVATION
SCALE: 1/8"=1'-0"

2 CASSIDY HOUSE
SOUTH ELEVATION
SCALE: 1/8"=1'-0"



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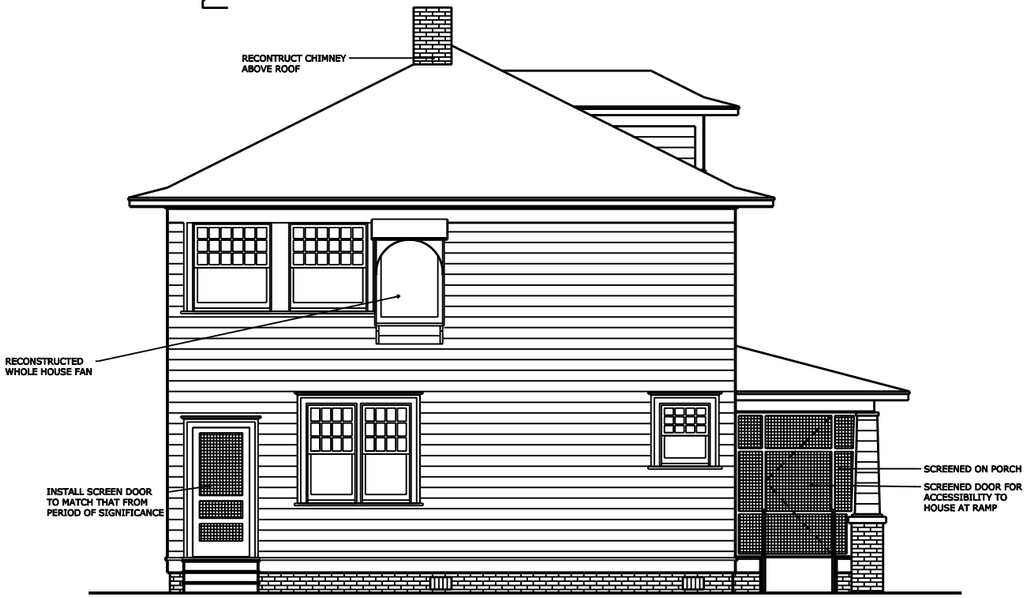
EAST ELEVATION
SCALE: 1/8"=1'-0"



4 CASSIDY HOUSE
NORTH ELEVATION
SCALE: 1/8"=1'-0"

0 2' 4' 8' 12'
SCALE OF FEET

DESIGNED: GM	SUB SHEET NO. A2	TITLE OF SHEET: PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE CASSIDY HOUSE PROPOSED ELEVATIONS	DRAWING NO. 732 116054
DRAWN: GM			PMIS/PKG NO.
TECH. REVIEW: K1			SHEET 3 OF 7
DATE: 11/01/13			

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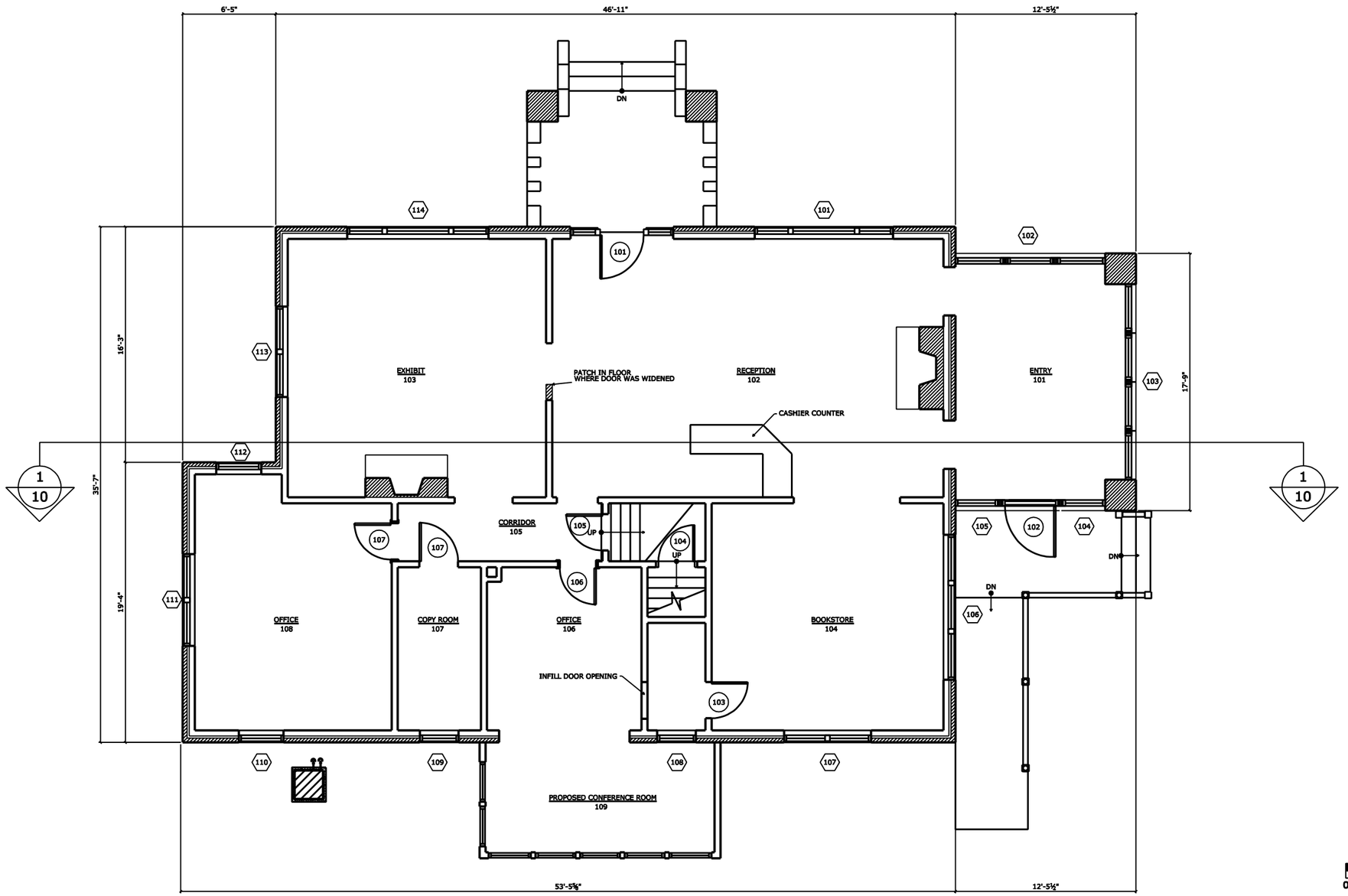
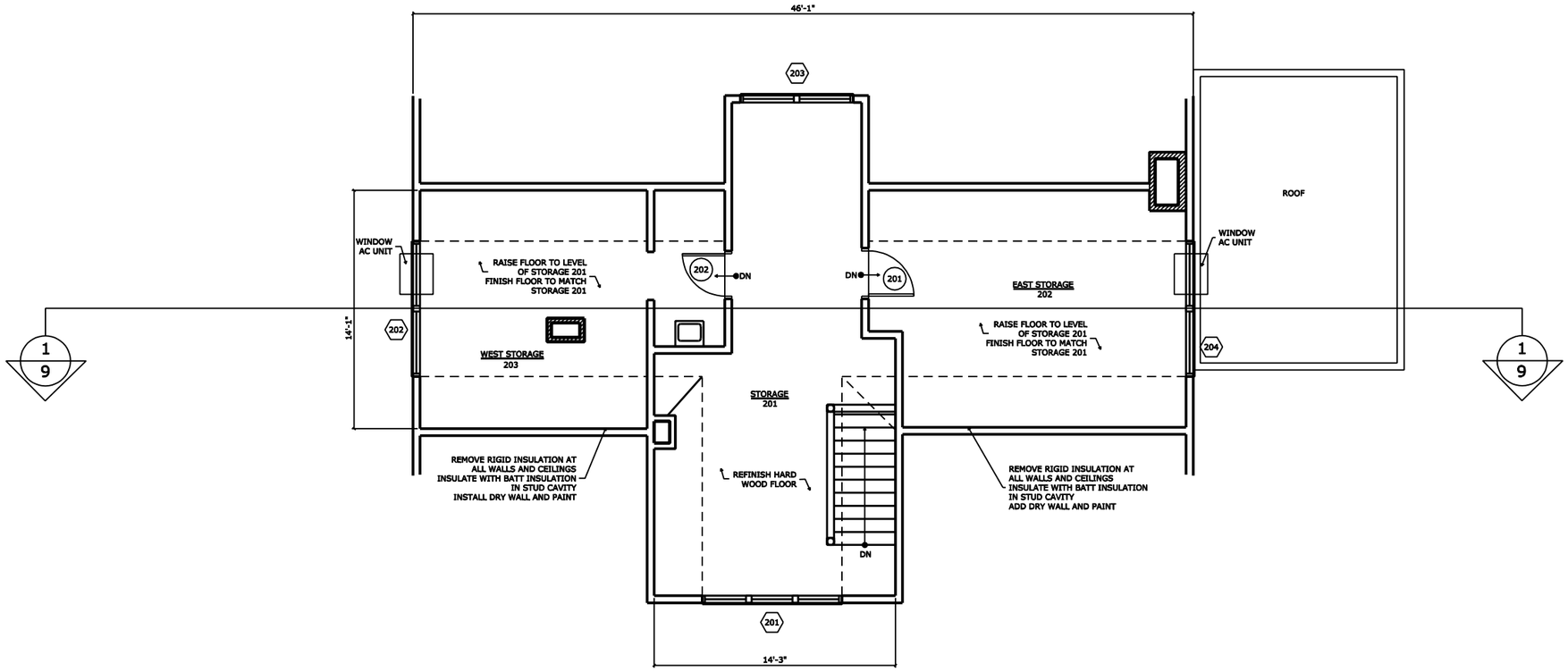


1 VISITOR CENTER
FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"

DESIGNED: GM DRAWN: GM TECH. REVIEW: K1 DATE: 11/01/13	SUB SHEET NO. A3	TITLE OF SHEET PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE VISITOR CENTER PROPOSED MAIN FLOOR	DRAWING NO. 732 116051 PMIS/PKG NO. SHEET 4 OF 7



1 VISITOR CENTER
SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"

0 2' 4' 8' 12'
SCALE OF FEET

DESIGNED: GM DRAWN: GM TECH. REVIEW: K1 DATE: 11/01/13	SUB SHEET NO. A4	TITLE OF SHEET PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE VISITOR CENTER PROPOSED SECOND FLOOR	DRAWING NO. 732 116051 PMIS/PKG NO. SHEET 5 OF 7

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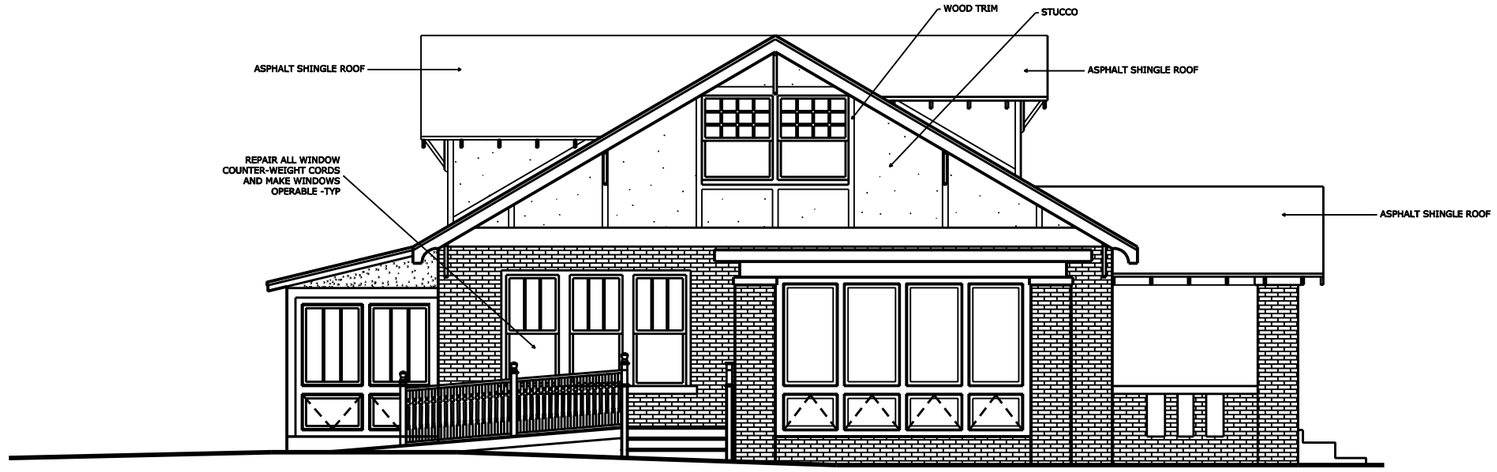

1 VISITOR CENTER
SOUTH ELEVATION - VISITORS CENTER
SCALE: 1/8"=1'-0"

2 VISITOR CENTER
SOUTH ELEVATION - VISITORS CENTER
SCALE: 1/8"=1'-0"

0 2' 4' 8' 12'
SCALE OF FEET

DESIGNED: GM DRAWN: GM TECH. REVIEW: K1 DATE: 11/01/13	SUB SHEET NO. A5	TITLE OF SHEET PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE VISITOR CENTER PROPOSED ELEVATIONS	DRAWING NO. 732 116051 PMIS/PKG NO. SHEET 6 OF 7

1 VISITOR CENTER
WEST ELEVATION
SCALE: 1/8"=1'-0"

2 VISITOR CENTER
SOUTH ELEVATION
SCALE: 1/8"=1'-0"

0 2' 4' 8' 12'

DESIGNED: GM DRAWN: GM TECH. REVIEW: K1 DATE: 11/01/13	SUB SHEET NO. A6	TITLE OF SHEET PRESIDENT WILLIAM JEFFERSON CLINTON BIRTHPLACE HOME NATIONAL HISTORIC SITE VISITOR CENTER PROPOSED ELEVATIONS	DRAWING NO. 732 116051 PMIS/PKG NO. SHEET 7 OF 7

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Appendix B

Limited Asbestos and Lead-Based Paint Survey

Limited Asbestos and Lead-Based Paint Survey

William Jefferson Clinton Birthplace Home NHS

Hope, Arkansas

November 30, 2012

Project No. 35127193

Prepared for:

Bahr Vermeer & Haecker Architects, Ltd.
Lincoln, Nebraska

Prepared by:

Terracon Consultants, Inc.
Bryant, Arkansas

November 30, 2012

Bahr Vermeer & Haecker Architects, Ltd.
440 N. 8th Street, Suite 100
Lincoln, NE 68508

Attn: Mr. Dan Worth, AIA

Re: Limited Asbestos and Lead-Based Paint Survey
William Jefferson Clinton Birthplace Home NHS
Hope, Arkansas
Terracon Project No. 35127193

Dear Mr. Worth:

Terracon Consultants, Inc. (Terracon) is pleased to submit this Limited Asbestos and Lead-Based Paint (LBP) Survey Report for the above-referenced site. The survey was conducted in general accordance with Terracon's Agreement for Services, dated October 11, 2012.

PROJECT INFORMATION

The site is located at 117 South Hervey Street in Hope, Arkansas. The site consists of the William Jefferson Clinton Birthplace Home NHS, and an adjacent National Park Service (NPS) Visitor's Center building.

SCOPE OF SERVICES

Limited Asbestos Sampling

As outlined in our proposal, our scope of service was limited to the collection of bulk samples of suspect asbestos-containing materials (ACM), submission of the samples to an accredited laboratory and reporting the analytical results.

Limited asbestos sampling was conducted on October 16, 2012 by a State of Arkansas licensed asbestos inspector in general accordance with our proposal dated October 11, 2012. Fifteen bulk samples were collected from seven homogeneous areas of suspect ACM. Bulk samples were collected from the following suspect materials identified per your request:

NPS Visitors Center

- Brick Texture and Mortar – Upstairs Room 205 and Exterior
- Drywall with Joint Compound – Throughout
- Window Glaze – Exterior Windows
- Carpet with Mastic – Room 105 and Corridor
- Insulation – Above Ceiling on 2nd Floor

William Jefferson Clinton Birthplace Home

- Insulation – Attic
- Water Heater Tank Liner - Kitchen

Bulk samples were submitted under chain of custody to Steve Moody Micro Services for analysis by polarized light microscopy with dispersion staining techniques per EPA methodology (40 CFR 763, Subpart F). The percentage of asbestos, where applicable, was determined by microscopic visual estimation. The laboratory analytical results are presented as an attachment to this report.

Based on the results of laboratory analysis, the following materials were confirmed to contain asbestos:

- Water Heater Tank Liner – Kitchen (William Jefferson Clinton Birthplace Home)

LBP Sampling

An on-site LBP survey was also conducted by Terracon on October 16, 2012. Per your request, 13 samples were collected from surface coatings on building components in the two buildings on the site. The samples were submitted to Steve Moody Micro Services for analyses of lead content using appropriate chain-of-custody procedures. The samples were analyzed utilizing Atomic Absorption (SW 846-7420) and the analytical results reported in parts per million (ppm) and by weight percentage. The laboratory analytical results are presented as an attachment to this report.

The location of the paint samples and analytical results are presented in the following table. Reports of laboratory analysis of the samples collected and sample chain of custody documentation are attached.

Lead-Based Paint Sampling Results

Sample ID	Color/ Layering	Location	Condition	Lead (ppm)	Lead (% weight)
NPS Visitors Center					
LBP-1	White	Interior North Window Pane - Upstairs	Good	223,700	22.37
LBP-2	White	Exterior Window Pane	Good	14,630	1.463
LBP-3	White	Interior Window Pane – 1st Floor	Good	38,780	3.878
LBP-4	Light Gray	Interior Throughout – 1st Floor	Good	251	<0.0251
William Jefferson Clinton Birthplace Home					
LBP-1	White	Stair Rails – 1st Floor	Good	435	0.0435
LBP-2	White	Stair Stringer – 1st Floor	Good	732	0.0732
LBP-3	White	French Doors – 1st Floor	Good	1,626	0.1626
LBP-4	White	Kitchen Closet – 1st Floor	Good	28,730	2.873
LBP-5	White	Ceiling/Wall Above Sink – 1st Floor	Good	59,760	5.976
LBP-6	White	Cabinet Near Kitchen – 1st Floor	Good	130,000	13.00
LBP-7	White	First Bedroom on Left – 2nd Floor	Good	36,050	3.605
LBP-8	White	Second Bedroom on Left Jam – 2nd Floor	Good	9,898	0.9898
LBP-9	White	Closet Door on Right – 2nd Floor	Good	2,163	0.2163

LBP is defined by the Environmental Protection Agency (EPA) as any paint that contains more than 5,000 parts per million (ppm) or 0.5 percent lead by weight. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.62 establishes airborne lead concentration limits for the Construction Industry. However, OSHA has not established limits for lead content in bulk materials. Their interpretation on this issue is that any amount of lead may generate airborne concentrations above the established permissible exposure limit (PEL). Therefore, during renovation or demolition activities, which may disturb lead, employees must be protected from lead exposures.

As indicated by the sampling results, 8 of the 13 paint samples collected at the site exhibited lead concentrations greater than 5,000 ppm (EPA threshold for LBP).

Limitations

Limited asbestos sampling was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, conclusions and recommendations expressed in this report are based on conditions observed during the limited sampling event. This letter report has been prepared on behalf of and exclusively for use and reliance by the Client. This report is not a bidding document. Contractors or consultants reviewing this limited sampling report must draw

their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information, which may have been used in the preparation of this report. No warranty, express or implied is made.

Terracon appreciates the opportunity to provide this service to BVHA. If you have questions regarding this report, please contact either of the undersigned.

Sincerely,
Terracon

Paul Gramling
ACM Inspector #014638

David M. Svingen, P.E.
Senior Principal

Randy A. Milbrath, CIH
Senior Project Industrial Hygienist

Attachments: Lab Results

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : Terracon - Bryant, AR
Project : Clinton Birthplace Home and Visitor Center, Hope, AR
Project # : 35127193 Sample Date : 10/16/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-12488
Report Date : 10/20/2012

On 10/19/2012, fifteen (15) bulk material samples were submitted by a representative of Terracon - Bryant, AR for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
1-1	Brick Texture and Mortar, Visitor's Center, Upstairs Room 205 and Exterior	None Detected - Brick None Detected - Mortar
1-2	Brick Texture and Mortar, Visitor's Center, Upstairs Room 205 and Exterior	None Detected - Brick None Detected - Mortar
1-3	Brick Texture and Mortar, Visitor's Center, Upstairs Room 205 and Exterior	None Detected - Brick None Detected - Mortar
2-1	Drywall with Joint Compound, Throughout Visitor's Center	None Detected - Drywall Material None Detected - Joint Compound
2-2	Drywall with Joint Compound, Throughout Visitor's Center	None Detected - Joint Compound
3-1	Window Glaze (White), Exterior Windows	None Detected - Bottom Glazing None Detected - Top Glazing
3-2	Window Glaze (White), Exterior Windows	None Detected - Window Glazing
3-3	Window Glaze (White), Exterior Windows	None Detected - Window Glazing
4-1	Carpet with Mastic (Brown), Room 105 and Corridor, Visitor's Center	None Detected - Carpet Backing
4-2	Carpet with Mastic (Brown), Room 105 and Corridor, Visitor's Center	None Detected - Carpet Backing
5-1	Cellulose Insulation (Brown / Gray), Above Ceiling on 2nd Floor, Visitor's Center	None Detected - Thermal Insulation
5-2	Cellulose Insulation (Brown / Gray), Above Ceiling on 2nd Floor, Visitor's Center	None Detected - Thermal Insulation
B-1-1	Cellulose Insulation (Brown / Gray), Clinton Birthplace Home, Attic	None Detected - Thermal Insulation
B-1-2	Cellulose Insulation (Brown / Gray), Clinton Birthplace Home, Attic	None Detected - Thermal Insulation
B-2-1	Water Heater Tank Lining (White), Clinton Birthplace Home, Kitchen	None Detected - Thermal Insulation 1 90% Chrysotile - Thermal Insulation 2

PLM Summary Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : Terracon - Bryant, AR
Project : Clinton Birthplace Home and Visitor Center, Hope, AR
Project # : 35127193 Sample Date : 10/16/2012
Identification : Asbestos, Bulk Sample Analysis
Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Lab Job No. : 12B-12488
Report Date : 10/20/2012

On 10/19/2012, fifteen (15) bulk material samples were submitted by a representative of Terracon - Bryant, AR for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. Results may not be reproduced except in full. This test report relates only to the samples tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056.

NVLAP® LAB #102056

Analyst(s): Kirsten Tye

Lab Manager : Bruce Crabb Approved Signatory : Bruce Crabb

Lab Director : Steve Moody Approved Signatory : Steve Moody

Thank you for choosing Steve Moody Micro Services

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : Terracon - Bryant, AR
Project : Clinton Birthplace Home and Visitor Center, Hope, AR
Project # : 35127193

Lab Job No. : 12B-12488
Report Date : 10/20/2012

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
1-1	Brick (Brown)	10%	Sintered Clays	100%	10/20	KT
	Mortar (Grey)	90%	Aggregate	65%		
			Cement Binders	35%		
Note: No Texture						
1-2	Brick (Brown)	10%	Sintered Clays	100%	10/20	KT
	Mortar (Grey)	90%	Aggregate	65%		
			Cement Binders	35%		
Note: No Texture						
1-3	Brick (Brown)	20%	Sintered Clays	100%	10/20	KT
	Mortar (Grey)	80%	Aggregate	65%		
			Cement Binders	35%		
Note: No Texture						
2-1	Drywall Material (Off-White)	70%	Cellulose Fibers	5%	10/20	KT
			Gypsum / Binders	95%		
	DW Paper / Tape (Tan / White)	10%	Cellulose Fibers	100%		
	Joint Compound (White)	20%	Calcite / Talc / Binders	100%		
2-2	DW Tape (White)	15%	Cellulose Fibers	100%	10/20	KT
	Joint Compound (White)	15%	Calcite / Talc / Binders	100%		
	Caulking (White)	70%	Calcite	50%		
			Binders / Fillers	50%		
Note: No Drywall Material						
3-1	Bottom Glazing (Tan)	50%	Calcite	60%	10/20	KT
			Binders / Fillers	40%		
	Top Glazing (White)	50%	Calcite	50%		
			Binders / Fillers	50%		
3-2	Window Glazing (White)	100%	Calcite	50%	10/20	KT
			Binders / Fillers	50%		
3-3	Window Glazing (White)	100%	Calcite	50%	10/20	KT
			Binders / Fillers	50%		
4-1	Carpet Backing (Off-White)	100%	Synthetic Fibers	85%	10/20	KT
			Glue Binders	15%		

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab No. 102056
TDSHS License No. 30-0084

Client : Terracon - Bryant, AR
Project : Clinton Birthplace Home and Visitor Center, Hope, AR
Project # : 35127193

Lab Job No. : 12B-12488
Report Date : 10/20/2012

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
4-2	Carpet Backing (Off-White)	100%	Synthetic Fibers	85%	10/20	KT
			Glue Binders	15%		
5-1	Thermal Insulation (Tan)	100%	Cellulose Fibers	100%	10/20	KT
5-2	Thermal Insulation (Tan)	100%	Cellulose Fibers	100%	10/20	KT
B-1-1	Thermal Insulation (Light Gray)	100%	Mineral Wool Fibers	95%	10/20	KT
			Resin Binders	5%		
B-1-2	Thermal Insulation (Light Gray)	100%	Mineral Wool Fibers	95%	10/20	KT
			Resin Binders	5%		
B-2-1	Thermal Insulation 1 (White)	20%	Mineral Wool Fibers	100%	10/20	KT
	Thermal Insulation 2 (Off-White)	80%	Chrysotile	90%		
			Binders / Fillers	10%		

Chain of Custody

Page 1 of 1

SMMS LABS

Lab Job # 12B-12488 Plm 15
Lab Job #
Lab Job #

Please call in advance for immediate, after-hour, & weekend pricing & availability.
Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM
Bulk: ☐ 1 day ☐ 2 day ☑ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☑ Positive Stop

LEAD Paint / Soil / Wipe ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD
Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile
Analyze Blanks ☐ Yes ☐ No
Culture (Swab / Bulk / Plate) ☐ 7-14 day

ASBESTOS TEM
Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
Water ☐ 1 day ☐ 2 day ☐ 3 day
Analyze Blanks ☐ Yes ☐ No

BACTERIA
Heterotrophic Plate Count (HPC) ☐ 3 day
HPC + Gram Stain ☐ 3 day ☐ 5 day
HPC + 3 Gram Neg ID ☐ 6-8 day
HPC + 5 Gram Neg ID ☐ 6-8 day
Fecal Coliform (MPN) ☐ 3 day
Total Coliform & E. Coli (P/A) ☐ 2-3 day

Billing Company / City: TERRACON Consultants, Inc. / Bryant, AR # of Samples: 15
Submitter / Company: Paul GRAMLING / TERRACON Sample Date: 10-16-12
Project: Clinton Birthplace Home & Visitor Center - Hope, AR Project #: 35127193
Contact Information: Name: Merrick Rotenberry Phone #: 501-847-9292
E-mail Results to: MLRotenberry@terracon.com Mobile #: —
Invoice Address: 25809 I-30 S. Bryant, AR. 72022 P.O. #: —

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged samples or excessive administrative requests may incur additional fees. —

Notes:

	Sample #	Sample Description	Vol / Area if applicable	Location / Notes
1	1-1	Brick Texture & Mortar		Visitors Center upstairs Rm. 205 & Exterior
2	1-2	"		"
3	1-3	"		"
4	2-1	Drywall w/Joint compound		Throughout visitors center
5	2-2	"		"
6	3-1	Window Glaze (white)		Exterior Windows
7	3-2	"		"
8	3-3	"		"
9	4-1	Carpet w/mastic (Brown)		Room 105 & corridor (Visitors Center)
10	4-2	"		"
11	5-1	Cellulose insulation (Brown/Gray)		Above ceiling on 2nd Floor "
12	5-2	"		"
13	B-1-1	Cellulose Insulation "		Clinton Birthplace Home (Attic)
14	B-1-2	"		"
15	B-2-1	Water Heater Tank Lining (white)		" Kitchen

Released By	Date / Time	Received By	Date / Time
Paul [signature]	10-18-12 0800	[signature] verified ED	10/19/12 9:10 AM
Released By	Date / Time	Received By	Date / Time

LABORATORY REPORT

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, Texas 75234 (972) 241-8460

Client : Terracon - Bryant, AR
Project: Clinton Birthplace Home and Visitor Center, Hope, AR
Project #: 35127193 Sample Date:
Identification: Lead Analysis – Paint
Test Method: Based on EPA 7420, Atomic Absorption Spectroscopy

Lab Job No. : 12M-12489
Report Date: 10/23/2012

On 10/19/2012, thirteen (13) samples were submitted by Paul Gramling of Terracon - Bryant, AR for analysis of the lead content using atomic absorption spectroscopy. The results are summarized below.

Sample Number	Client Sample Description/Location	Result	Reporting Limits	Units	Analysis Date
LB-1	Paint White on Wood, Visitor Center, Interior North Window Pane Upstairs	22.37	0.0176	% by weight	10/22/2012
LB-2	Paint White on Wood, Visitor Center, Exterior Window Panes	1.463	0.0095	% by weight	10/22/2012
LB-3	Paint White on Wood, Visitor Center, Interior Window Panes (1st Floor)	3.878	0.0141	% by weight	10/22/2012
LB-4	Paint Light Gray on Drywall, Visitor Center, Interior Throughout (1st Floor)	<0.0251	0.0251	% by weight	10/22/2012
LBP-1	Paint – White on Wood, Birthplace Home, 1st Floor Stair Rails	0.0435	0.0163	% by weight	10/22/2012
LBP-2	Paint – White on Wood, Birthplace Home, 1st Floor Stair Stringer	0.0732	0.0152	% by weight	10/22/2012
LBP-3	Paint – White on Wood, Birthplace Home, 1st Floor French Doors	0.1626	0.0123	% by weight	10/22/2012
LBP-4	Paint – White on Wood, Birthplace Home, 1st Floor Kitchen Closet	2.873	0.0108	% by weight	10/22/2012
LBP-5	Paint – White on Wood, Birthplace Home, 1st Floor Ceiling and Wall above Kitchen Sink	5.976	0.0099	% by weight	10/22/2012
LBP-6	Paint – White on Wood, Birthplace Home, 1st Floor Cabinet near Kitchen	13.00	0.0096	% by weight	10/22/2012
LBP-7	Paint – White on Wood, Birthplace Home, 2nd Floor Door 1st Bedroom on Left	3.605	0.0118	% by weight	10/22/2012
LBP-8	Paint – White on Wood, Birthplace Home, 2nd Floor Door Jamb 2nd Bedroom on Left	0.9898	0.0320	% by weight	10/22/2012
LBP-9	Paint – White on Wood, Birthplace Home, 2nd Floor Closet Door on Right	0.2163	0.0173	% by weight	10/22/2012

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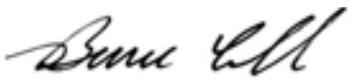
Digested sample materials will be retained for at least 6 months. Should you have any questions or require additional testing, please do not hesitate to call. Results may not be reproduced except in full. This test report relates only to the samples tested.
Note: Soil samples are tested as received unless noted as "Dried before analysis".

Analyst: Eric Harper

Lab Director: Steve Moody Approved Signatory:



Chain of Custody

Page 1 of 1

SMMS LABS

Lab Job # 12M-12489 Lead 13
Lab Job #
Lab Job #

Please call in advance for immediate, after-hour, & weekend pricing & availability.
Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM
Bulk ☐1 day ☐2 day ☐3 day ☐5 day ☐Immediate
☐Analyze All ☐Positive Stop

LEAD Paint Soil / Wipe ☐1 day ☐2 day ☑3 day ☐5 day ☐Immediate
PCM Air (7400) ☐1 day ☐2 day ☐3 day ☐5 day ☐Immediate
TOTAL DUST (0500/0600) ☐1 day ☐2 day

MOLD
Non-culture (Tape / Bulk / Air) ☐1 day ☐2 day ☐Immediate
☐Air Standard Profile ☐Air Expanded Profile
Analyze Blanks ☐Yes ☐No
Culture (Swab, Bulk, Plate) ☐10-14 day

ASBESTOS TEM
Air AHERA Method ☐6 hr ☐12hr ☐24 hr
Air 7402 (Modified) ☐1 day ☐2 day ☐5 day
Bulk/Wipe/Micro Vac ☐1 day ☐2 day ☐3 day
Water ☐1 day ☐2 day ☐3 day
Analyze Blanks ☐Yes ☐No

BACTERIA
Heterotrophic Plate Count (HPC) ☐3 day
HPC + Gram Stain ☐3 day ☐5 day
HPC + 3 Gram Neg ID ☐6-8 day
HPC + 5 Gram Neg ID ☐6-8 day
Fecal Coliform (MPN) ☐3 day
Total Coliform & E Coli (P/A) ☐2-3 day

Billing Company / City: TERRACON Consultants, Inc. / BRYANT, AR. # of Samples: 13
Submitter / Company: Paul GRAMLing / TERRACON Sample Date: 10-16-12
Project: Clinton Birthplace Home + Visitor Center - Hope, AR. Project #: 35127193
Contact Information: Name: MERRICK Rotenberry Phone #: 501-847-9292
E-mail Results to: MLRotenberry@terracon.com Mobile #: —
Invoice Address: 25809 I-30 S. Bryant, AR. 72022 P.O. #: —

— Please ensure paperwork and samples before submitting to lab. Unsealed / improperly packaged samples or excessive administrative requests may incur additional fees —

Notes:

	Sample #	Sample Description	Vol. / Area if applicable	Location / Notes
1	LB-1	Paint white on Wood	Visitor Center	Interior N. Window Pane upstairs
2	LB-2	"	"	Exterior Window Panes
3	LB-3	"	"	Interior Window Panes (1st Floor)
4	LB-4	Paint Lt. gray on Drywall	"	Interior Throughout (1st Floor)
5	LBP-1	Paint-white on wood	Birthplace Home	1st Floor Stair Rails
6	LBP-2	"	"	1st Floor Stair Stringer
7	LBP-3	"	"	1st Floor FRench Doors
8	LBP-4	"	"	1st Floor Kitchen Closet
9	LBP-5	"	"	1st FLR. Ceiling & Wall Above Kitchen Sink
10	LBP-6	"	"	1st FLR. Cabinet near Kitchen
11	LBP-7	"	"	2nd FLR. Door 1st Bedroom on Left
12	LBP-8	"	"	2nd FLR. Door 2nd Bedroom on Left Jam
13	LBP-9	"	"	2nd FLR. Closet Door on Right

Released By	Date / Time	Received By	Date / Time
Paul [signature]	10-18-12 0800	[signature] via FedEx	10/19/12 9:30 AM
Released By	Date / Time	Received By	Date / Time

Appendix C

Finishes Analysis

Appendix C: Finishes Analysis

Introduction

As part of the Historic Structures Report study, Wiss, Janney, Elstner Associates, Inc. (WJE) performed laboratory analysis of select finishes removed from the Cassidy House at the William Jefferson Clinton Birthplace Home National Historic Site in Hope, Arkansas. WJE removed limited small samples for laboratory optical microscopy. The purpose of the analysis was to review the finish campaigns on the samples received in order to determine if historic finish layers are present. The earliest finish layers were noted and where multiple finish layers were observed, the stratigraphy was documented with notes, photomicrographs, and color comparisons with the *Munsell Book of Color*.

Analytical Methodology

Survey Methods. Prior to selecting locations for sampling, each room was visually reviewed and photographically documented to gain a general understanding of the existing finishes. This review included observation of existing wood surfaces to identify areas with high-build thickness indicating multiple layers of coatings.

Samples for Analysis. Sample areas were selected to best represent the conditions observed and at locations most likely to contain multiple intact coating layers, based on visual observation. The following samples were received for analysis:

- Sample 1 – North East Bedroom (202), Interior of Door (204)
- Sample 2 – North East Bedroom (202), Jamb of Door (204)
- Sample 3 – Bathroom (203), Door (205)
- Sample 4 – South East Bedroom (205), Door (207)
- Sample 5 – West Bedroom (204), Door (201)
- Sample 6 – Living Room (101), base of newel post
- Sample 7 – Dining Room (102), Door (102) jamb
- Sample 8 – Living Room (101), Door (102)
- Sample 9 – Kitchen (104), wall
- Sample 10 – Pantry (105), Door (103)
- Sample 11 – Exterior of transom window over Door (101)

Optical Microscopy. Samples extracted during the field investigation were selected for laboratory analysis. Initially, unmounted samples were viewed with a stereomicroscope under 10x to 63x magnification, and then selected portions of each sample were prepared for more-detailed microscopic

analysis. Sample preparation included embedding the sample in a clear resin, cross-sectioning the embedded sample perpendicular to the finishes layers, and polishing with successively finer grades of abrasives as necessary to clearly expose the layers, or stratigraphy, of the sample.

The prepared cross-sectioned samples were analyzed with reflected light supplied by a quartz halogen light source equipped with a daylight-balanced filter under magnification ranging from 10x to 200x. Photomicrographs of the samples were taken to provide a general characterization of the intact stratigraphy. The closest color designation from the *Munsell Book of Color* was identified for the earliest extant historic finish layer present in each sample.

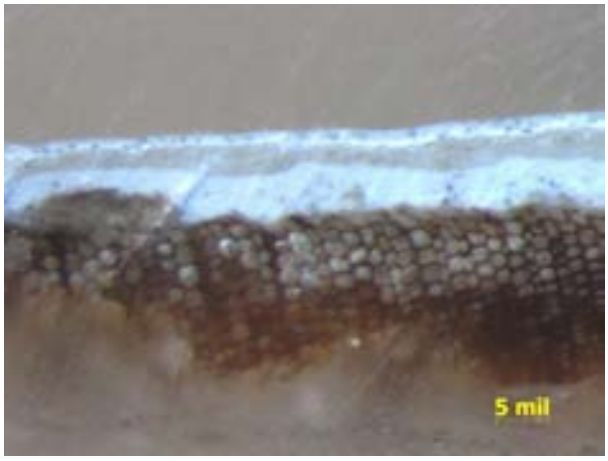
Observations

A summary of observations is provided in Table C-1 below:

Table C-1. Finishes Analysis Observations

Sample number	Sample location	Visual description of sample	Microscopic observations	Notes	Figure number
1	Northeast bedroom (202), interior of door 204	One adhered fragment 1/2 inch by 1/8 inch. Exposed surface is white glossy paint.	White paint is earliest finish layer. Three finish layers present. White and tan colors.	Based on number of layers present, no historic finishes likely remain.	C-1
2	Northeast bedroom (202), jamb of door 204	Several small debonded fragments. Two 1/2 inch by 1/8 inch samples with attached substrate. Exposed color is glossy white.	Three to four finish layers total. Tan layer present over substrate. White layer present over tan. A portion of the sample included a brown layer above the white layer, covered by two additional white layers.	Brown layer does not extend across sample and may be a fragment left behind after preparing the surface for repainting. Tan color at base is closely equivalent to Munsell 7.5YR6/2	C-2
3	Bathroom (203), door 205	Small fragments debonded from substrate. Exposed color is glossy white, shiny surface on substrate may indicate a clear coat, likely shellac. 3/8 inch by 1/4 inch portion used for mounting.	Clear coat (likely shellac) potentially present at base of sample, covered with five successive layers of white/off-white, and tan colors.	The off-white paint layer above the potential clear coat is likely a primer. Tan color above off-white is closely equivalent to Munsell 7.5YR6/2. The clear-coat is likely the original finish.	C-3
4	Southeast bedroom (205), door 207	Small 1/2 inch by 1/8 inch intact sample with white exposed color and wood substrate, with several debonded fragments included with sample	Four finish layers total. Tan layer at base, covered by three off-white layers.	Based on the number of layers present, the sample likely does not include historic finish layers.	C-4
5	West bedroom (204), door 201	Two 1 inch by 1/8 inch strips of white painted wood, and one approximately 1/2 inch by 1/8 inch fragment with full adhered system	Approximately six layers present. Bottom layer is light grey topped with green, off-white, brown, and multiple layers of white	Grey color adjacent to substrate is likely primer for green finish. Green color is closely equivalent to Munsell 5G8/4. Brown color is closely equivalent to Munsell 2.5YR3/6.	C-5

6	Board at base of newel post in living room (101)	Several fragments, uppermost color is glossy white. Fragment without attached substrate appears to contain a variety of layers.	Separated sample. Wood substrate with base layer of light tan and white, and separate fragment with layers of white and brown.	A layer of light tan over the substrate is likely the historic finish layer. It is closely equivalent to Munsell 10YR7/4. The brown layer in the fragment is translucent and may be a modern stain.	C-6 and C-7
7	Dining room (102), door 102 jamb	One fragment, 3/4 inch by 1/8 inch, with attached substrate. Exposed paint is glossy white.	Partially separated sample. Approximately nine layers of white, off-white, light tan, and brown.	Based on the number of layers present, the sample likely includes some historic finishes. The tan color adjacent to the substrate is closely equivalent to Munsell 10YR8/2.	C-8
8	Living room (101), door 102	Several small debonded fragments. One 1/4" by 1/8" sample with white painted exposed surface and adhered wood substrate.	Sample debonded from epoxy during preparation	Microscopic review of unmounted sample includes a slightly glossy darkened layer at the outside of the wood substrate. This may be a previously applied clear coat finish.	n/a
9	Kitchen (104), wall	Debonded sample with several fragments of paint and wood substrate. Recently exposed surface appears to be white glossy paint.	Separated sample. Wood substrate and potentially three layers of white/off-white paint.	Based on number of layers present, no historic finishes likely remain.	C-9
10	Pantry (105), door 103	Two 1 inch by 1/8 inch strips of white painted sample and one approximately 1/2 inch by 1/8 inch fragment with full adhered system.	Separated sample. Portion of sample includes wood substrate and five layers of white and light tan. Separate fragment includes approximately eight layers including white/off-white, brown, red, and light tan.	The sample likely includes historic finishes. Tan at substrate is closely equivalent to Munsell 10YR8/2. This is likely the earliest historic finish. Brown is closely equivalent to Munsell 7.5R2/2. Red is closely equivalent to Munsell 5R2/6.	C-10 and C-11
11	Exterior of transom window over door 101	One small partial sample and one sample, 7/8 inch by 3/8 inch, with white exposed surface and small portions of wood substrate.	Partially separated sample. One portion includes a wood substrate with approximately three layers of white/off-white paint. A portion of the sample does not include a substrate and has multiple layers including layers of off-white and green. Approximately nine finish layers present in the portion of the sample without attached substrate.	Based on the variation of the number of layers present within the sample, the window may have previously been scraped during preparation for repainting. Traces of wood substrate are present on a portion of the unmounted sample. The wood substrate appears to be topped with a white layer and a dark green layer Green color is closely equivalent to Munsell 5G2/4.	C-12



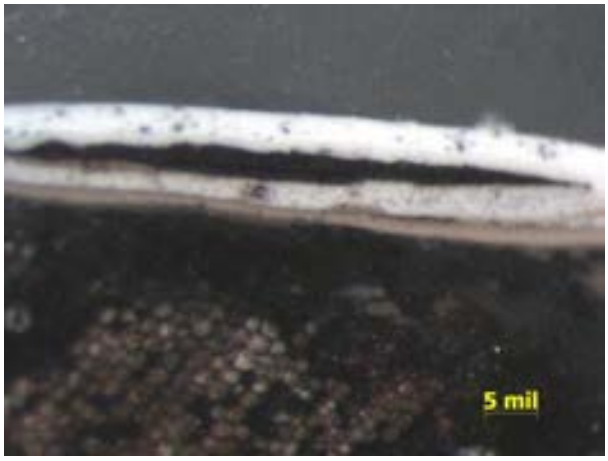


FIGURE C-1. Left: Photomicrograph of Sample 1.
FIGURE C-2. Right: Photomicrograph of Sample 2.

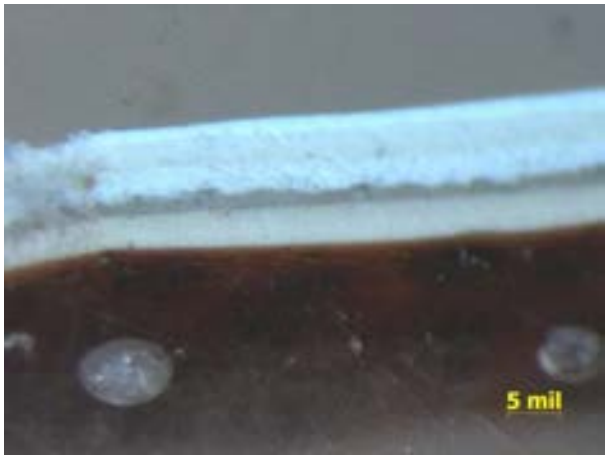
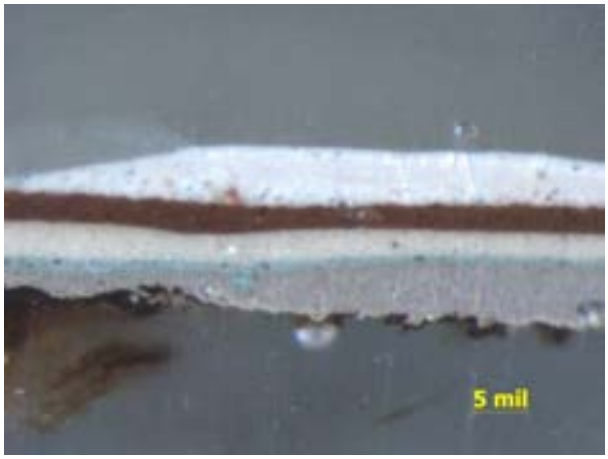


FIGURE C-3. Left: Photomicrograph of Sample 3.
FIGURE C-4. Right: Photomicrograph of Sample 4.



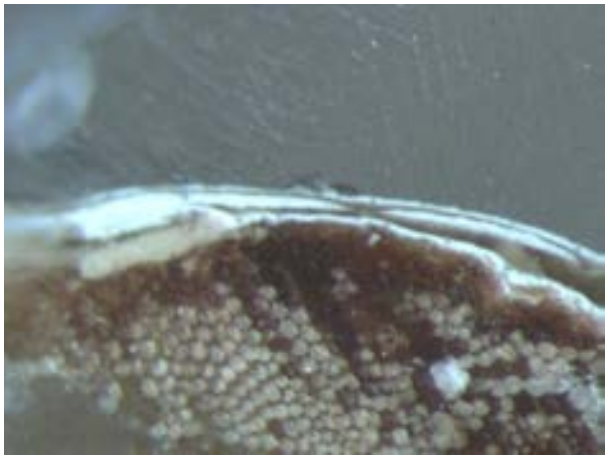
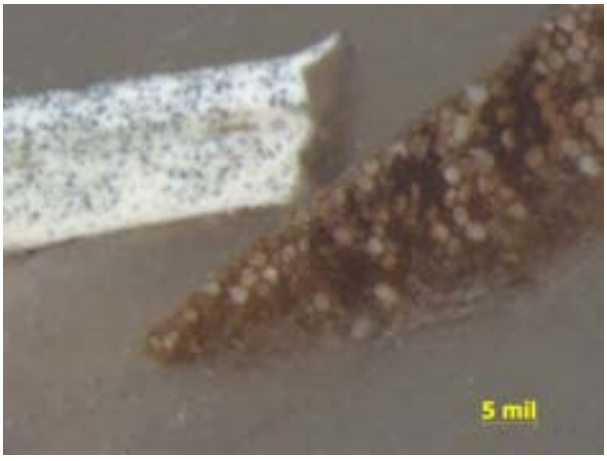


FIGURE C-5. Left: Photomicrograph of Sample 5.
FIGURE C-6. Right: Photomicrograph of Sample 6A.

FIGURE C-7. Left: Photomicrograph of Sample 6B.
FIGURE C-8. Right: Photomicrograph of Sample 7.



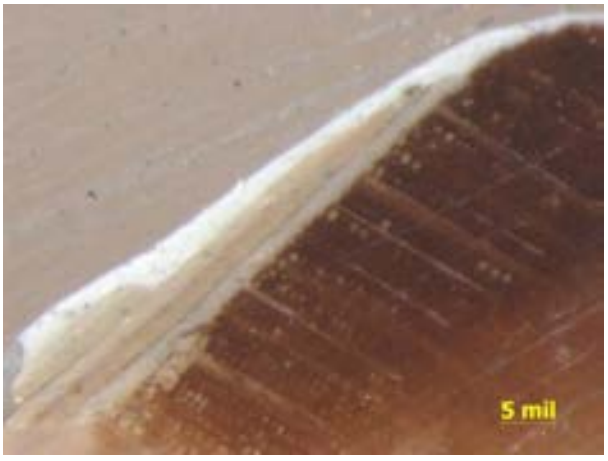


FIGURE C-9. Left: Photomicrograph of Sample 9.
FIGURE C-10. Right: Photomicrograph of Sample 10A.

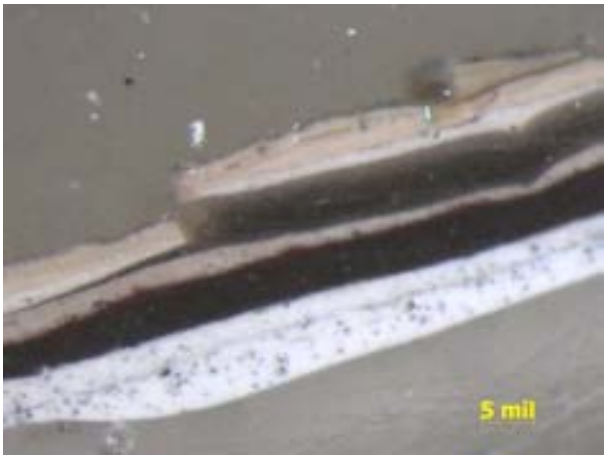


FIGURE C-11. Left: Photomicrograph of Sample 10B.
FIGURE C-12. Right: Photomicrograph of Sample 11.

Appendix D

Wood Species Analysis

Appendix D: Wood Species Identification

Introduction

As part of the Historic Structures Report study, Wiss, Janney, Elstner Associates, Inc. (WJE) performed species identification of selected wood samples removed from various structural members at the Cassidy House at the William Jefferson Clinton Birthplace Home National Historic Site in Hope, Arkansas.

Samples for Analysis. The following samples were received for analysis:

- Sample 1 – Southeast hip rafter
- Sample 2 – Southwest corner roof rafter (charred)
- Sample 3 – Wood from attic
- Sample 4 – Roof decking (charred)

Optical Microscopy. A small specimen was cut from each sample and initially reviewed with a stereo microscope under magnification ranging from10x to 63x. All of the specimens were observed to include similar cellular structures; therefore, one representative specimen (Sample 3) was selected for preparation and additional review. The specimen was prepared by polishing a cross-section with successively finer abrasive pads until the cell structure was clearly visible (Figure D-1). The cell structure was then observed under magnification and compared to a wood identification database.

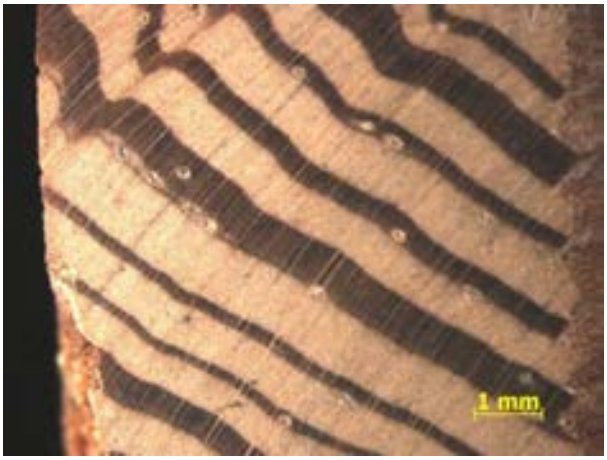


FIGURE D-1. Left: Magnified view of Sample 3.

FIGURE D-2. Right: Reference photo of longleaf pine end-grain at 10x from *The Wood Database* (www.wood-database.com).

Observations

Based on our observations, the wood specimens are characteristic of longleaf pine (*Pinus palustris*), part of the group of southern yellow pines (Figure D-2). Longleaf pine is native to the southeastern United States and is rated as moderately rot resistant. Longleaf pine was commonly used for construction due to its availability and strength to weight ratio.

Appendix E

Oral History Transcript and Notes

Appendix E: Oral History Transcript and Notes

The following are summaries of conversations with Mr. Paul Henley, Mr. Charlie Penix, and Mr. Joe Purvis, all of whom were involved with the acquisition and renovation of the Cassidy House in the early 1990s. Their recollections are summarized below. These summaries are not verbatim transcripts of the interviews as the conversations were not recorded. However, they do provide a different point of view from each individual.

Mr. Henley was involved in the acquisition of the house and served on the board of the Clinton Foundation to raise funds. Mr. Penix was the architect at Cromwell Architects who worked on the renovation. Mr. Purvis is a childhood friend of President Clinton and played with him as a child. His remembrances of the house and its surroundings are quite detailed.

The telephone conversation with Stan Jackson was recorded on December 13, 2012, and a transcript is provided.

Interview with Paul Henley, October 16, 2012

By Melissa Dirr Gengler, Historic Resources Group, Inc., at the William Jefferson Clinton Birthplace Home National Historic Site Visitor Center, Hope, Arkansas

Mr. Henley is the Director of the City of Hope Parks and Recreation and was involved with the Clinton Foundation to purchase and renovate the birthplace home.

Mr. Henley shared with us information regarding the plantings in the yard around the visitor center. One tree facing Division Street is called a popcorn tree because of the volumes of small white blooms that resemble popcorn, both on the tree and when they fall.

The acorns off the oak tree in the visitor center yard are so big that people collect them to feed to the deer.

Mr. Henley had no recollections of the details of the interior of the house prior to the foundation's acquisition.

Mr. Henley described the appearance of the Cassidy House as being very run down. The house was a rental property for many years and deferred maintenance caused many needed repairs. Prior to the fire and vacancy of the house, nobody was aware that the property was the Clinton birthplace home. Once that information became public, Mr. Henley, along with many others locally, formed a committee to acquire and preserve the residence.

Mr. Henley was very involved with the acquisition and renovation of the property and is now the mayor of neighboring Washington, Arkansas.

He remembered that there was very little of historic value in the house until the foundation took it over and renovated the property. He was not as involved with the garden, but primarily the acquisition of the house for its preservation.

He did not recall the landscape or plantings around the house because of its long-term deteriorated state. He thought that, because it had not been used as a single family residence for so many years, very few would remember what it looked like during the period of the Cassidy family's occupancy of the house.

Mr. Henley thanked us for the opportunity to discuss the project and was hopeful that the little he could remember would be helpful.

Mr. Henley came to the visitor center and the interview concluded after about 30 minutes.

Interview with Charlie Penix, Cromwell Architects, October 17, 2012

Melissa Dirr, Historic Resources Group, Inc., and Dan Worth, Bahr Vermeer Architects, met Charlie Penix at the offices of Cromwell Architects in Little Rock, Arkansas.

Mr. Penix shared with us the deteriorated condition of the property when they began their renovations.

He described the condition after the fire as being very deteriorated and that there was "nothing left of the place."

They retained their drawings for the project, but not much else. There were no photo files, correspondence, or other flat files retained. He emphasized that we really need to talk to Stan Jackson, as he was the primary point of contact for the project.

We looked at the plans and files available electronically. He offered to provide copies to us for a fee, but did not have all the detailed information available for the copies.

He also thought that Mr. Joe Purvis would have some good information, along with Stan Jackson and Rose Crane.

The meeting was brief, as Mr. Penix did not have a significant amount of information available.

The meeting concluded after about 45 minutes of conversation and looking at architectural plans.

Interview with Joe Purvis, October 18, 2012

By Melissa Dirr Gengler, Historic Resources Group, Inc., at William J. Clinton Presidential Center, Little Rock, Arkansas

Mr. Purvis is an attorney in Little Rock and a lifelong friend of President Clinton. The two were in kindergarten together in Hope and have maintained their friendship throughout the years. Mr. Purvis shared the following information.

He received a call from Hope regarding the bad condition of the home.

Governor Clinton gave a speech in Texarkana and wanted to drive past the house. When the motorcade pulled into the drive with the Governor's Lincoln and state police escorts, four men came out of the house with their hands up.

Sammy Crabtree bought the house and Mr. Purvis was involved with the committee to purchase the house from Crabtree.

Stan Jackson was a "mover and shaker" and took photos of Virginia Kelley touring the house and noted her remembrances.

Others closely involved include George Frasier, Elaine Johnson, Stan Jackson, and Ivan Baker.

Mr. Purvis's and President Clinton's mothers were close friends when the boys were in kindergarten.

Mr. Purvis has photos of them as children in the yard.

He remembers that there was not much yard at the house and that the adults did not like little folks outside the house playing because the road was so busy.

The dedication day for the renovated house was very cold and raining . . . about 35 degrees.

He remembers a swingset out in the backyard, but it was relatively infrequent that they played in the yard.

Bill and Vince (Foster) played a game called "mumblepeg" with a pocket knife and a stick. One would flip the knife to the ground and then put a match or a stick near the knife. Not quite clear on the rules of the game.

He remembers the house always had flowers—maybe gladiolas—definitely roses and clumpy flowers (hydrangeas) on either side of the porch. The roses were on the north side by the railroad tracks.

Purvis's father was a national instructor for Equitable Life and he traveled by train in and out of Hope. The train tracks were a focus for the neighborhood boys.

This was a solid middle class home. Virginia grew up there.

Purvis noted they were careful to restore it the way it looked when he (Clinton) was born.

Purvis went to Washington, D.C., to talk to the President regarding how the house looked when he was a child.

When the reviewer from the *New York Times* came through the house, he stated that the house looks "like my grandmother's house."

The foundation made a conscious effort to show the house as it was.

Mr. Purvis also shared his thoughts on the interior, stating that, back then, "plaster was money," and not everybody had or needed a finished wall surface when they could just paper over the wall boards.

The soil in Hope was very bad and plaster would only crack if it was used. Nothing but a problem.

The Cassidy's store was across from Rose Hill cemetery. Mr. Cassidy was also an ice-man and he would haul 50 pound blocks of ice around town.

In Hope, you did not show your money with flashy cars or big houses . . . "just wasn't done."

They raised about $500,000 and the state gave another $500,000.

He remembers that in order to stay cool in the house the family would open windows downstairs and open the doors upstairs and use the whole house fan along with floor and table fans to keep the air constantly circulating.

He mentioned that Stan Jackson found the refrigerator from Ohio dating to 1946.

Purvis shared that Bill "gained his deep understanding of Blacks and poor people based on the way his grandfather treated people."

The grandmother (Edith Cassidy) wore a navy blue cape and wore white stockings and a white dress as her nurse's uniform. She was very serious.

Mr. Purvis shared that he did not ever recall seeing her smile and that she was a big woman and, with the cape, she was "all business."

The interview concluded after about 45 minutes.

Transcript of Telephone Interview with Stan Jackson, December 13, 2012

By Melissa Dirr Gengler, Historic Resources Group, Inc., and Greg Munn, Bahr Vermeer Haecker Architects. Words in parenthesis are estimations of the conversation, as portions of the interview tape were unclear and could not be interpreted for transcription. The insertions are based on conversation notes by interviewers.

> Melissa: Hi, it's Melissa, thanks for calling. We were just sitting here in this little conference room and we were trying to figure out the best way to pick up the phone, probably not very reassuring, sorry. (Laughter)
>
> Greg: And this is Greg Munn, an architect with BVH.
>
> Stan: Good to meet you.
>
> Melissa: Stan, thanks for taking the time to talk to us. You know the purpose in the email I sent you. The reason we called you—I am with a team working for the Park Service, who is putting together two, actually three documents for the Clinton home site in Hope. One is a historic structure report, one is a cultural landscape report, and one is a planning document for environmental compliance. We're approaching our first deadline—our first draft in about a month—and one of the things we're doing because so much of the project is recent history, there is not a ton of written documentation so we really have been trying to follow up with some interviews with people who were involved. We just talked to Paul Henley and Joe Purvis and a couple of others.

Stan: [They were all very involved in the project.]

Melissa: Charlie Penix and they all said we needed to talk to you. (Laughter.) And some of the things we'd just like to have a conversation about, specifically, are things about the garden, the memorial garden and the rail garden, and any information you may have and any recollections you may have about the condition of the house itself, you know, when you first started working on it and demolition plans and things that were removed. We're trying to come up with. . . the purpose of this document is going to try to identify the as-built or sustained condition of the house versus the renovated condition of the house, talk about the changes, and make recommendations for the future planning activities for the [National] Park Service. This is such a new acquisition for the [National] Park Service that these will be the first major planning documents they will have, so we are really focusing on the details of the house and the garden, primarily. Do you know who initiated the memorial garden concept?

Stan: Yeah, I think I did, actually.

Melissa: Perfect. See we knew you were going to be the right guy to talk to. (Laughter.) What can you tell us about the garden? The one thing we really had trouble finding [was] basic information. You know, the purpose of the garden. Was it meant to be functional or commemorative ? Design—who designed it, was it designed, was it a volunteer activity? If you could just kind of share some of your thoughts about the garden, that would be very helpful.

Stan: Originally, what they took, what we got from the start . . . the house sits on a site, well it is kind of, nothing in the neighborhood, it's a real tight, there are several structures that are pressed right against the house, that affects the property, that is the old Vince Foster home, it was in the back of the house. It is pretty much abandoned.

Melissa: yeah, the beautiful brick house.

Stan: The challenges when we went to site was there was no room for parking, there was no room for visitors. The people actually lived in this house. When we first got involved, the President had already been elected, it wasn't very long at all, it was just foresight on our part to try to get in there and try to preserve the property. It was in really bad condition. It had a fire. It was pretty much a flop house. There were probably 20 people that lived in the house. It was pretty rough. Where the garden is, that was the first piece of property that came on the market that was reasonably priced, that we felt like it would give us a little bit of room to grow. It was a way to have a proper entry, you know, a view from Hervey Street. It made a little more sense than just a home stuck in the middle of the neighborhood. So that was the original thought. There was talk that (we could use) that property that we purchased. It was real cheap, I think it was, it might have been some rail property. If I remember, it was a frame structure that had rats really bad, I mean, it needed to be either torn down or major repairs. So it made perfect sense for us to expand it and the garden concept was probably (doable). We had thought that it would be a meditation type of place. And then after the death of Virginia Kelley, it was appropriate as a memorial to her because there were actual roses that she had planted at the house that were still there. They were just there and had been trimmed back; they were original plantings that she had put there. The concept in our minds was a really nice rose garden. It was either a (natural) planting that they had that were true to the home, or we felt like it should be something that had natural plants to the area, stuff that was popular in the 1940s, which was the type of era we

were trying to target, for the development or feel of the house. We also, we had attempted early on, to pull several different regions, several different cities together. This was the very first development and when I say that, at the time every conversation about a library or anything like that. We felt that this could become a very popular tourist destination because of the (Hope) video that was really popular at the Democratic Convention when he was first elected. It describes the city, his rural upbringing, you know, how, his whole family background, how it was special, so it felt like this would be the obvious place to start. So the original thought was to tie into that garden space, an element from each of the cities that was involved. Little Rock was probably the hardest, but Hot Springs, which is where he moved to from Hope, was the next obvious choice. We had had a conversation there with an artist from Hot Springs at the time who is—you may or may not be familiar with him. His name is Panini. He is an Italian artist that lives there. He had talked to some people about starting a quartz crystal monument, because Hot Springs, Arkansas, is famous for its mines. So that was a big element that was going to become a featured piece. Fayetteville which is another one of his homes. We had talked about some sort of element where Fayetteville would be represented, where Little Rock could follow up with; however, we felt that could be done. That was kind of the original concept. It was mainly our desire to gain property that made sense to support the structure. Because you really, like I said, it was so (bad) there that the (owner of the property, which was the big sponsor property, it was, I mean the guy saw dollar signs. The house is still, it's about the last to sale. If you are familiar with the soil there, it's clay, and just every brick structure up there has had some work at some point. Everything shifts. It's pretty rough, but maybe (the building) actually somehow survived it. It's a frame structure because it actually (just rested) on the soil. When we got (access), pretty much three sides were destroyed. It was coming apart all over the place. So, that helped (the sale), but if you have a structure like that (damaged) property, it's toast. And the guy wanted $300,000 for it, which is ridiculous, but he felt it would be purchased. We had looked at the property for a parking lot. That was before a deal was struck with the grocery store to use the parking lot that is theirs. The home that is now the visitor center, that is now next door to the garden, that was a private residence. They felt like there was going to be way more traffic in their back yard than they wanted, you know, people trying to get to the house. So they came up with a number that was reasonable, and we were able to purchase that home. And in the plan that would be our visitor center and museum, gift shop, so we could present the home in its entirety, instead of trying to force some sort of administration, you know, option within the home. We also found that buying that property allowed us to sort of garage (the stuff) that was part of the visitor center property, and that allowed us to construct the modern bathroom (comfort station) in the building and a storage room. So, we had a little difficulty in an entryway because we had to (provide access). It was awkward because it was hard for people to access. But if you look at the elevation all around on that corner it's probably 65 feet in the air, that actual corner. There really wasn't much of an option to have an entryway that wasn't on a center block. So, I think I have rattled enough. Any questions?

Melissa: I am massively taking notes as quickly as I can, both of us are. Yeah, actually this is very, very helpful. Thank you, Stan. Once the garden converted from, as you said, more of a meditative place to a potentially a representation of the regions where Clinton lived to the memorial garden for Mrs. Kelley, Mrs. Clinton, what happened with the design? Was there an actual design concept for the garden?

Stan: There was an actual design concept that was formal it had ovals with arbor covers all the way around and they basically ran out of money. We were under pressure to get this, in fact, me and another guy laid all the sod out there, we did it ourselves because we couldn't afford to pay somebody to do it and we had to hurry up and get it ready for the dedication that was about two weeks later. So we really kind of rushed through trying to get something out there that was suitable and (ready to use). At the original dedication there wasn't really anything out there particularly. It was mainly just a sod area. And then, after that, over time, we were able with donations to come up with a walkway and plantings in itself and get the people involved. Yeah, we did an eighth, probably of what we had hoped to do originally.

Melissa: Then when donations came in I assume it was probably fairly spotty the way it was constructed just based on the donations.

Stan: Uh huh, but, I'm sorry, I didn't catch all of that.

Melissa: You said that after the dedication as you got donations over time you would continue to plant things in the garden. Was it primarily done by volunteers, or by the foundation board, or did it just depend on the donations? How did it actually work that the garden came to be planted and that things were purchased?

Stan: It ended up, more and more after the dedication, after the building was opened up to the public and it was functioning, then more and more of the responsibilities were handed off to the locals there at Hope. So they pretty much spear headed the development of it from then on. I'm not sure how long that period of time was, maybe a year or so; more and more (there was a variety of) different groups you know that helped develop it…I don't know if her name has come up but you know Rose Crane? Her name has come up (many times). She was the neighbor that grew up with Clinton. So they knew each other real well. She is a (great) person, and she was instrumental in buying a lot of supplies, everything involved like we did , I don't remember who the last architect, the landscape architect that was with me and Charles. We did actually have a really nice design it was (formal) and maybe a little over the top. You know I think that that was probably a big part of it too, you know that community is very blue collar and it, you really don't (need something like that to fit) into it. It would be very out of place, I think, I think at some point the (landscape and garden) that people can relate to that is not a distraction to the house itself. It is not a destination as much as it is . . . it's a place that you would see before or after a tour.

Melissa: Okay…I'm just thinking, that makes a lot of sense. As I said we're having to fill some holes in the history and the resources that we have been working with. We're trying to dig up a plan and a receipt and (possibly the)different types of species and of course that is not available. You said that after the dedication and completion of the garden it was more turned over to the local with Rose Crane. . . .

Stan: I think that is how it went.

Melissa: Do you know if they went with the original garden was installed, do you know how different it looked compared to the original compared to today?

Stan: Well originally, like I said, there was kind of bare, I mean it was built up a lot. And you know the one addition that surprised me there: on the day of the dedication, and there were huge trees like I said I could go back like maybe for five years and the trees, somebody planted trees all along the (lane)___ that surprised me how huge they were. They didn't exist the last time I was up there. So those trees I don't remember what kind of trees they are that they put along the fence line all along that corner they tried to shade it or hide it from the street, those were never in the plan that I remember. So that was a big change, but other than that a brick walk way, you know something that took up space a little bit, I think they've got potentially, if not at one end, the same.

Melissa: The brick walk way, oh I'm sorry, the fountain

Stan: It is like a pot, it is made to hold water, I believe, but I don't think it has water in it. But as far as that, I mean, It was a big grandiose concept (for the landscape)We really, it wasn't up to us what was going to happen and I think they just , like I said they kind of made a (more casual and locally appropriate design). . . .

Melissa: And that is what we are trying to look at, like when they built it, I guess the late nineties, then today, ten to twelve years later, what it looks like today and how it's changed.

Stan: You know, other than those trees, that is the biggest dramatic change, but the monument place that was near the home, that was always in the plan. The monument with the presidential seal on top it has the original board of directors you know all that stuff (on it).

Melissa: Yeah, right.

Stan: That was always planned. Everything else kind of evolved around that.

Melissa: I guess you weren't really, (too involved with the landscape) we'd really like to get with Rose Crane, if we can. I know our landscape architects would like to know the types of plants, we know rose bushes, obviously, and the trees as you've mentioned, but I know some of the questions, the designers regarding plans special events that were meant to be housed at the garden, specific plans would you have any specific ideas about original plantings (that were identified for the landscape or did the committee) play it by ear for the gardeners other than (the monument)

Stan: It was thought that they would be native plants to the area.

Melissa: Okay.

Stan: How's that? Its specifically planned that they were originally typical flowering plants that from the 1940s that (would have been typical in the area). . . .

Melissa: Okay.

Stan: That was real important, even at the grandiose plan, they wanted you to be able to walk through there and see this is an example of southern, (landscape and plants) Theoretically ,(the design) again, not to distract from the home.

Melissa: Was the garden ever designed specifically for any special events or seasonal events or anything?

Stan: It was not, the way it is planned out you have the short planting area they had the re-dedication? I tried to get in there with (a stage) and tried to figure out the best way to still have a decent platform but you would also have the background that would have the home and the shop in there so no thought was put into that at all.

Melissa: So it wasn't designed for special events at all.

Stan: No, not at all.

Melissa: okay, you've answered most of our specific questions, I think one was the functional, interpretive roles of the garden and you've mentioned that. That it was meant to be a memorial to Mrs. Kelley. (which is different)from its original intent.

Stan: Right.

Melissa: Was the original garden built altered, well. . . .

Greg: I think we have that covered.

Melissa: (Greg is right), like Greg said, it sounded like it just evolved.

Greg: I have a quick question. I find it very interesting that (the roses) Virginia had planted (in the yard), so they were around the Cassidy house originally, where they came from, do you know?

Stan: On the alley side of the home there were a small rose bush(es?) that had, like I said, been cut back and cut back over the years, but from my understanding that was one of her original roses.

Melissa: And that was actually moved and put into the garden?

Stan: I think that is how it was.

Melissa: Okay.

Stan: Rose Crane probably would know more about that since she was involved in all that but it seems like I remember that.

Melissa: Can we get a hold of her, is she in Little Rock still?

Stan: Yes.

Melissa: okay, I think I have her name through (the documents) from the foundation board that we (went through), I can get ahold of her and maybe ask her some of these questions also. Greg had some specific questions about the house that he wanted to ask you.

Greg: We have some construction photographs, some (before) photographs that we ….taking a look around inside the house specifically if you can remember the cabinet in the hallway between the dining room and the kitchen, you know, looking at it (it seems that) the hinges and that things have changed over time, and the ceiling, that was probably done a long time ago did you rebuild that at all or did , it looks like it had changed over time but you probably didn't do anything to it.

Stan: I think all we did was (clean it up) and paint.

Greg: Yeah, that is what I assumed, it had some patches and repairs on it but that was done a long long time ago.

Stan: Now one area though, the area (that was) across the walkway there, that was a strange area and we saw they had we weren't sure what that area was for, they had got in there and the wall studded. . . . And took the paper down and saw where they had cut some walls out and moved things around, we weren't real sure what had happened there Virginia Kelley, she did [see] the house before we did any of the renovations and [all], not only the physical elements but background per script in the future, She [remembered] the refrigerator, the refrigerator and there were dry[ing] racks? But they were [washing] clothes inside? If they didn't have [a basement or outbuilding] and did their ironing and that kind of stuff in that little area. So we tried to recreate that as best we could. The back porch which ended up, we had to make that into a utility area and I think that is where the breaker box is all that is actually a back porch that was open. That is where I think they had their ice box, see his grandfather lived there was an ice man so he brought ice home. And they had an ice box on the back porch so he could make his deliveries and do all that without ever coming into the house.

Greg: So that back porch, it didn't have walls?

Stan: It was kind of open.

Greg: Kind of open, really? And there is a new little mechanical closet put on their (existing) plans. It does look like it was a little weird. You answered the question, some walls were moved and some were added. So that was (based on) recollections? And like you said, you take down the wallpaper and you can tell what was changed. So that and drying rack, across from the china cabinet, that's great.

Stan: . . . when we finished the hall furnishings that's how , seems like when I was in there at the rededication a few months ago it hadn't changed. . . . It just got stuck? I don't know who did that or when.

Melissa: you know, one thing we were finding interesting as we went through the house, just the fact that the wall paper, it seemed like there were unfinished walls in the house, was directly applied to boards without finished walls, Is that a pretty typical thing that you would see in the south?

Stan: Yep, the unique thing is that when we started demolition we, there was probably thick layers of wall paper on that so we actually got down to the original wall paper. That was the pattern, if you look at photographs, there is one really good photo of Bill Clinton standing in the living room, that wall paper, we actually got that wall paper. That is where we tried to replicate every room in the house.

Melissa: did you salvage any of it or keep any of the scraps or anything like that?

Stan: the scraps that I had were destroyed in a fire. We actually made tiles, Bill Clinton has one, Mack McClarty has one, people that have them that are actually still around aren't many (others out there) Is covered with. . . .

Melissa: The wallpaper?

Stan: Yes.

Melissa: You think that Mack McClarty and Bill Clinton might be the only ones that have them? It would be a real gem to have them or even a photograph, current photograph of the scrap, I think that would be really valuable.

Stan: I think, actually, there's a scrapbook that our construction manager put together.

Melissa: He didn't keep it?

Stan: Okay, Huitt, H-U-I-T-T.

Melissa: Thanks.

Stan: He is a construction administrator right now at UAM (University of Arkansas Medical) for medical projects in Little Rock, he may have a copy of that but he put it together of all of the old and all of the new stuff? But I know the works. . . . He's got a copy and I know I could probably find you one. I know there are two or three floating around. We did it, you know there are many working on the home (and many people) I know appreciate just something. We tried to give them little reminders as we went through the process. Something (out of the house as) a keepsake, just something before all the stuff got taken away.

Melissa: Great, it's just neat because it wasn't that long ago so I am thinking maybe it's still available.

Stan: But when you are looking at the grand scheme of trying to document those things, a little bit more recent, it's amazing what people have already gotten rid of or didn't think to keep, an old those kind of things, just anything original of the house would really be great in value, even it is not the actual item, just a photograph of the item that says, here is an exact picture of that original.

Stan: Well, Terry Huitt actually he was the construction administrator of that with. . . . I was the project coordinator. But I was really deeper involved with the project. That and the communication for the. . . . Deeper involved and trying to coordinate with Virginia Kelley. . . . We had a lot of stuff, a lot of stacks (of papers and more) than you can imagine. (Over time), we had (many volunteers and lots) of stuff that was distractions, trying to get in the way (of moving forward on the project). You just had to fight your way through it. That was my role, to try to keep things moving forward.

Melissa: And you said that Terry Huitt is now at the University of Arkansas at Little Rock?

Stan: University of Arkansas for Medical Sciences.

Melissa: Okay, for Medical Sciences.

Stan: They call it UAMC and he is one of the construction administrators. He (was very involved and knows) about. (the project)Very (knowledgeable).

Greg: I'm just looking at the plan and I want to clarify one thing about that kitchen and back hallway—that back hallway, now, goes along the backside of the dining room? Does it have a door as well to the back porch? You know what I mean?

Stan: It came out of the kitchen—

Greg: There's a door that came out of the kitchen to the back porch, but there is a door filled in from the hallway to the back porch area – as well –

Stan: It seems like it was but I'm a little fuzzy on that one.

Greg: I just wanted to know (because) it seemed to make sense that you might have been able to walk through from the back hallway to the back door, but that's fine. Also, there's the Bead Board In the kitchen and ceiling in that hallway, I believe that was all replaced?

Stan: No, I think that was all original.

Greg: Okay.

Stan: Especially in the kitchen.

Greg: Okay.

Stan: I don't think we replaced that.

Greg: yeah, okay. And do you know, I do know from the photograph there was some patching, was that over the studs or (wall board), do you recall? The 1x6 boards on the wall.

Stan: (paraphrasing: "I don't know what you mean.")

Greg: The board itself is it over another sub straight or is it just nailed straight to the walls?

Stan: I think it is nailed straight to the stud wall.

Greg: I would assume this one is clear…. Let's see…

Stan: A real good clue is look into the pantry. The pantry, it seems like we got a lot of (good information) from the original (pantry) I just remember anywhere. . . . you know where. . . .

Greg: Yeah, right, it had a lot of good original fabric.

Stan: I believe paint colors?

Greg: That's interesting they didn't do. . . .

Melissa: I am glad to know I am not the only one whose dog barks every time I get on the phone!

(Laughter)

Stan: _I had an accident and fell at six o'clock in the morning and will be leaving for the doctor after this call.

Melissa: Oh no!

Stan: I have two dogs, a little Jack Russell and . . . twisted and I tripped and fell and almost broke my. . . .

Melissa: Oh no! How are you now?

Stan: I'm at home now, I was going to take this call and then go back to the office.

Melissa: . . .

Stan: . . .

Melissa: My sister has two Jack Russells. She has one that gets himself wrapped up, it doesn't matter what is around that dog is in the middle of everything. I have a little Havanese and he is a lot more…..not nearly as excitable as the Jack Russell.

Stan: It's not that bad I smashed my face and everything, but I let go of the leash and the dog kept going. . . .

Melissa: Aw…(laughter)

Stan: not that I feel bad, but. . . .

Melissa: Aw. . . . We would have been happy to postpone. . . . We are glad to have you on the phone. . . . We are glad to have the opportunity.

Greg: We have learned a great deal from you. Are there any other general items that you can think about? It seems that when you did the demo, some modern . . . or something like that, there was some wallpaper over the boards and , was most of that, the trim around the baseboards and the trim around the ceiling was that mostly replaced or reused or

Stan: A lot of it was reused. That ell that they did have built that was not there was the fireplace?

Stan: The house . . . that . . . the exact dimensions of that (fireplace) of the 1940s but when we stripped the wall paper we actually got to where there was an end and you had a perfect outline of it where they tried to paint it. They did a sloppy job of painting the mantle so there was paint sloshed up on the wall paper.

Melissa: yeah, you can see a good shadow?

Stan: [something about dimensions] and there was a local carpenter who did really nice work as opposed to what we were trying to do and he took care of it. It was really a fun project for those type of things there was a lot of investigation and a lot of ….we tried to piece a lot of information together and luckily we had a lot of people who had been alive at the time. And there were a lot of neat stories that they chose not to use, a lot of (interesting) stuff.

Melissa: We've heard some good ones and then we think, uh, what is going to make it into this report? (laughter). We heard some good ones about the grandma.

Stan: . . . about Bill . . .

Melissa: . . .

Stan: . . . President of the United States, I don't think they'd like out there. . . . You gotta take the good with the bad.

Greg: The staircase, it's pretty much all original, isn't it?

Stan: Yeah, that was a huge logistical problem, you know, handicap issues, it's got a low ceiling right there, anybody could thump (their head) or is tall is an issue. We had to come up with ways to make that safe and still maintain the integrity, I think it is real important for the story, you know, as far as the little telephone table at the bottom of the stairs, you know, where Virginia took the call that Bill Clinton's dad was killed in a car wreck. Had to be, I mean the stairs had to maintain exactly, I mean, . . . because in the script, when the story is, you're finding Virginia finding out the . . . because she was a teenager in the home quite a bit. . . . Her bedroom at the top, I mean it is all original if you are interested in that.

Melissa: In the configuration of the second floor, that big front room, was that always her room?

Stan: Yes, she was the queen of the ball. It is kind of interesting because she was always outspoken, real energetic teenager and she pretty much ruled the roost as far as I could tell. The grandparents, they (shared the back bedroom) there are two beds up there . . . those two beds, actually came from my family (home) my mother and her sister were both born there. We donated those because those were exactly what they had at the time. They slept in different beds for a few reasons. One because he ran a grocery store and he was a night owl and he would leave the house at 5:00 in the morning, so she was a nurse and kept long hours so between the two of them, if they slept together they would wake the other one up and off schedule. Part of that story, uh, but Virginia, as far as I know, the way she told it, her bedroom was that size because . . . entertaining friends, eating dinner . . .

Greg: And there was a closet or a wall at the south end that she removed that was original and she probably told you that, that wasn't there

Stan: Yeah, if you had seen it was like clockwork . . . Somebody nailed that . . . in '50. . . . No framing, no . . . it was just a closet. You see that house was pretty much almost destroyed by fire. If you look at the floor underneath that rug there are huge burn spots, we didn't replace any flooring, especially up there. We did a couple of patches, but, hot spots, the windows up there had to be replaced because the fire department destroyed them coming in to fight the fire. They actually kicked

them out and tore them up. And that happened when it was a rental property. Not a real long time before we took possession.

Melissa: . . . at the time the fire occurred?

Greg: So were all of the windows replaced?

Stan: I believe so.

Greg: Yeah, I thought so but I just wanted to ask, and the siding on the outside, when you got a hold of it, was there any of the original (asbestos siding) underneath?

Stan: I don't remember there being any asbestos siding on the house.

Greg: Oh, okay.

Stan: Uh, are you talking about, like, asbestos shingles?

Greg: Yeah.

Stan: I don't remember that, but—

Greg: Maybe I have it wrong.

Stan: It could be, I have slipped since then. That's been 20 years ago.

Melissa: Was the siding removed for the new siding?

Stan: Oh yeah.

Melissa: Okay.

Greg: Okay, and I think I saw a photograph, the porch was in pretty much bad shape, you pretty much took that down.

Stan: We did some repair . . . the whole house had rats. . . . The front porch was in really bad condition originally it was a screen porch. We chose not to come back to that because . . . it was probably there, make it a little more presidential. It humbled, uh, you don't want it where people can't photograph it. A screen porch is just not the most attractive thing in the world.

Greg: Yeah, well, uh.

Stan: But then . . . and Virginia Kelley both agreed.

Greg: Yeah, we see earlier progress of that . . .

Stan: Was it Mark Twain who said when the legend becomes bigger than the reality . . . legend?

Greg: Well I am looking at my notes here and I think we've covered most of the questions that I had. We really appreciate all of the information that you've given us. Melissa do you have

Melissa: I think we're set, if there is anything else while I am typing up my notes here I will try to email you. We'll also try to get ahold of Terry Huitt and Rose Crane. Just to get some more details, specifically maybe tracking down that wallpaper scrap that was framed or maybe made into a plaque for the president and Mack McClarty…maybe even the foundation may have it in their collection, you don't know, maybe the Clinton Foundation may have it where they can take a picture of it for us.

Stan: They had a fire that destroyed quite a bit of stuff, I'll just have to think about it.

Melissa: Ok

Stan: They must have kept one of everything but I haven't seen it in a long time. I'll have to kind of dig around.

Melissa: Well, if you do come across anything we'd sure be interested and I know that (the rest of the team) would be interested in anything they could get that would be the original. We're trying to do this formal document they can use for their planning purposes. That would be really helpful.

Greg: (If there are any)photographs you could get from that era, it would be great to get a look at those.

Stan: I think that . . . quite a bit of stuff, you know, Ms. Miller—

Melissa: Lora Miller? Yeah, the superintendent, we got everything from her, we're just looking for some, everything house, we are trying to document as much as we can. Got some great photographs from the Clinton Foundation from their private family photos, you know, birthday parties and things like that, little Billy lived at the house and those have been really helpful.

Stan: Did Charlie Penix— he didn't have a lot of photographs?

Melissa: No, all he had were the plans that were electronically stored, he didn't think they had any files or anything like that left when we talked to him.

Stan: How unfortunate. I thought we did have a big file of stuff

Melissa: No, I think this new stuff is really hard to do because the old stuff gets filed and gets purged and it all happens before it becomes an archive or a library.

Stan: Was Brett Thompson . . .

Melissa: No, that is not a familiar name to me.

Stan: Brett Thompson was, uh Charlie and I We were at the thick of it. Brett might be able to shed some light. He's retired, though, I think, or semi-retired. You could still get to him through Caldwell. . . . He was . . . I had to go to Washington about once a month for different people and stuff Brett went with me a lot. If there was a luncheon or function that was . . .

Melissa & Greg: Oh, sounds like fun.

Stan: He might be one to talk to.

Melissa: Alright, terrific. Well, Stan thank you so much we really appreciate your time especially given your tired morning.

Stan: Well at least I . . .

Melissa: If you or I can think of anything else, call or follow up with an email. We appreciate it, thanks so much.

Appendix F

Opinion of Probable Costs

Appendix F: Opinion of Probable Costs

The following opinion of probable costs was developed by an independent cost consultant and the consultant team and is based upon the detailed breakdown of proposed treatment recommendations and rehabilitation tasks discussing in the previous chapter. The estimator reviewed the 75 percent and 95 percent draft HSR documents, including the narrative, drawings, and sketches, to develop the quantity take-offs and component pricing. The estimate reflects the labor rates for the Little Rock, Arkansas, area/region for a 2014–2015 construction period. The estimate includes all labor, overhead, and profit for construction as well as a design and construction contingency. Costs for items including professional design/engineering fees, furnishings, special technical equipment, exhibits, or interpretive items are not included.

Please refer to the estimates on the following pages. Included are separate summary sheets for the Cassidy House, the visitor center and comfort station. The detailed estimate materials for the proposed treatment follow the summary pages.

BCC **Building Cost Consultants, Inc** Professional Cost Estimators

P.O. Box 278 Plattsmouth, Nebraska 68048 Business (402) 298-8260 Fax (402) 298-8290 bccdsieh@cox.net

National Park Service
President William Jefferson Clinton
Hope, Arkansas

BCC Job No.: 13-11-0159

November 21, 2013

Class C Construction Cost Estimate
President William Jefferson Clinton Birthplace Home
Hope, AR

Estimate By: DS/BF/MG
Date: 11/21/2013
Reviewed By: DW
Date: 11/21/2013

Cassidy House Rehabilitation

Estimate is Based on 2013 Construction Costs

Bid Item		Recommended Markup	Building Cost Costs	Site Costs	Combined Building and Site
				to be incl w/ CLR	
General			$0	$0	$0
Cassidy House Exterior Work			$119,960	$0	$119,960
Cassidy House Interior			$127,150	$0	$127,150
Cassidy House Structural Repairs			$102,150	$0	$102,150
Mechanical (includes costs for Ground Source Heat Pump)**			$40,000	$0	$40,000
Electrical			$37,000	$0	$37,000
Hazardous Materials Abatement Allowance			$3,130		$3,130
Subtotal Direct Construction Cost			**$429,390**	**$0**	**$429,390**
Published Location Factor (0 Percent)		**0%**	$0	$0	$0
Remoteness Factor (5 Percent)		**5%**	$21,470	$0	$21,470
Federal Wage Rate Factor (3 Percent on labor portion)		**3%**	$6,441	$0	$6,441
Design Contingency (15 Percent)		**15%**	$64,409	$0	$64,409
Total Direct Construction Costs			**$521,709**	**$0**	**$521,709**
Standard General Conditions (0 Percent)		**0%**	$0	$0	$0
Government General Conditions (5 Percent)		**5%**	$26,085	$0	$26,085
Historic Preservation Factor (5 Percent)		**5%**	$26,085	$0	$26,085
Subtotal NET Construction Cost			**$573,880**	**$0**	**$573,880**
Overhead (15 Percent)	included in estimate	**0%**	$0	$0	$0
Profit (10 Percent)	included in estimate	**0%**	$0	$0	$0
Subtotal NET Construction Cost			**$573,880**	**$0**	**$573,880**
Contracting Method Adjustment (8a)		**0%**	$0	$0	$0
Estimated NET Construction Cost			**$573,880**	**$0**	**$573,880**
TOTAL Estimated NET Cost of Construction (Inflated to Summer 2015)		5%	**$602,574**	**$0**	**$602,574**
Construction Contingency (5%)		5%	$30,129	$0	$30,129
Construction Management (NAPA 0%)		0%	$0	$0	$0
GROSS CONSTRUCTION COSTS			**$632,702**	**$0**	**$632,702**

**Note: Mechanical deduct for Ground Source Heat Pump $ (25,000)

Class C Construction Cost Estimate
President William Jefferson Clinton Birthplace Home
Hope, AR

Estimate By: DS/BF/MG
Date: 11/21/2013
Reviewed By: DW
Date: 11/21/2013

Visitor Center Rehabilitation

Estimate is Based on 2013 Construction Costs

Bid Item		Recommended Markup	Building Cost Costs	Site Costs	Combined Building and Site
				to be incl w/ CLR	
General			$0	$0	$0
Visitor Center Exterior Work			$95,510	$0	$95,510
Visitor Center House Interior			$42,490	$0	$42,490
Visitor Center Structural Repairs			$136,150	$0	$136,150
Mechanical (includes Ground Source Heat Pump)**			$96,000	$0	$96,000
Electrical			$69,000	$0	$69,000
Hazardous Materials Abatement Allowance			$14,000		$14,000
Subtotal Direct Construction Cost			**$453,150**	**$0**	**$453,150**
Published Location Factor (0 Percent)		**0%**	$0	$0	$0
Remoteness Factor (5 Percent)		**5%**	$22,658	$0	$22,658
Federal Wage Rate Factor (3 Percent on labor portion)		**3%**	$6,797	$0	$6,797
Design Contingency (15 Percent)		**15%**	$67,973	$0	$67,973
Total Direct Construction Costs			**$550,577**	**$0**	**$550,577**
Standard General Conditions (0 Percent)		**0%**	$0	$0	$0
Government General Conditions (5 Percent)		**5%**	$27,529	$0	$27,529
Historic Preservation Factor (5 Percent)		**5%**	$27,529	$0	$27,529
Subtotal NET Construction Cost			**$605,635**	**$0**	**$605,635**
Overhead (15 Percent)	included in estimate	**0%**	$0	$0	$0
Profit (10 Percent)	included in estimate	**0%**	$0	$0	$0
Subtotal NET Construction Cost			**$605,635**	**$0**	**$605,635**
Contracting Method Adjustment (8a)		**0%**	$0	$0	$0
Estimated NET Construction Cost			**$605,635**	**$0**	**$605,635**
TOTAL Estimated NET Cost of Construction **(Inflated to Summer 2015)**		5%	**$635,917**	**$0**	**$635,917**
Construction Contingency (5%)		5%	$31,796	$0	$31,796
Construction Management (NAPA 0%)		0%	$0	$0	$0
GROSS CONSTRUCTION COSTS			**$667,713**	**$0**	**$667,713**

**Note: Mechanical deduct for HVAC Option 1 $ (52,000)
**Note: Mechanical deduct for HVAC Option 2 $ (20,000)

Class C Construction Cost Estimate
President William Jefferson Clinton Birthplace Home
Hope, AR

Estimate By: DS/BF/MG
Date: 11/21/2013
Reviewed By: DW
Date: 11/21/2013

Comfort Station Renovations

Estimate is Based on 2013 Construction Costs

Bid Item		Recommended Markup	Building Cost Costs	Site Costs	Combined Building and Site
				to be incl w/ CLR	
General			$0	$0	$0
Comfort Station Exterior Work			$4,800	$0	$4,800
Comfort Station Interior			$0	$0	$0
Comfort Station Structural Repairs			$0	$0	$0
Mechanical			$0	$0	$0
Electrical			$26,500	$0	$26,500
					$0
Subtotal Direct Construction Cost			**$31,300**	**$0**	**$31,300**
Published Location Factor (0 Percent)		**0%**	$0	$0	$0
Remoteness Factor (5 Percent)		**5%**	$1,565	$0	$1,565
Federal Wage Rate Factor (3 Percent on labor portion)		**3%**	$470	$0	$470
Design Contingency (15 Percent)		**15%**	$4,695	$0	$4,695
Total Direct Construction Costs			**$38,030**	**$0**	**$38,030**
Standard General Conditions (0 Percent)		**0%**	$0	$0	$0
Government General Conditions (5 Percent)		**5%**	$1,901	$0	$1,901
Historic Preservation Factor (0 Percent)		**0%**	$0	$0	$0
Subtotal NET Construction Cost			**$39,931**	**$0**	**$39,931**
Overhead (15 Percent)	included in estimate	**0%**	$0	$0	$0
Profit (10 Percent)	included in estimate	**0%**	$0	$0	$0
Subtotal NET Construction Cost			**$39,931**	**$0**	**$39,931**
Contracting Method Adjustment (8a)		**0%**	$0	$0	$0
Estimated NET Construction Cost			**$39,931**	**$0**	**$39,931**
TOTAL Estimated NET Cost of Construction **(Inflated to Summer 2015)**		5%	**$41,928**	**$0**	**$41,928**
Construction Contingency (5%)		5%	$2,096	$0	$2,096
Construction Management (NAPA 0%)		0%	$0	$0	$0
GROSS CONSTRUCTION COSTS			**$44,024**	**$0**	**$44,024**

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
FINAL SUMMARY SHEET		**Cost Per Square Foot**			
	Cassidy House Exterior (Pages 2-3)	1	L.S.		$119,960.00
	Cassidy House Interior (Pages 4-5)	1	L.S.		127,150.00
	Cassidy House Structure (Page 6)	1	L.S.		102,150.00
	CASSIDY HOUSE CONSTRUCTION TOTAL =				**$349,260.00**
	Visitor Center Exterior (Pages 7-8)	1	L.S.		$95,510.00
	Visitor Center Interior (Page 9)	1	L.S.		42,490.00
	Visitor Center Structure (Pages 10-11)	1	L.S.		136,150.00
	CASSIDY HOUSE CONSTRUCTION TOTAL =				**$274,150.00**
	Comfort Station Exterior (Page 11)	1	L.S.		$4,800.00
	COMFORT STATION CONSTRUCTION TOTAL =				**$4,800.00**
	CONSTRUCTION TOTAL OF ALL THREE PROJECTS =				**$628,210.00**
NOTE:	The following mark-ups are included in the above costs:				
	General Conditions, Overhead, Profit, Insurance and Bond -	25%		includes special protection, etc.	
	Design Contingency -	0%		see summary sheet	
	Escalation -	0%		see summary sheet	

QUALIFICATIONS

1. No sales tax is included. Assumed facility is tax exempt.
2. No asbestos removal is included.
3. No costs are included for furniture, furnishings or movable equipment.
4. No costs are included for major fixed equipment.
5. Assumed project to be competitively bid.
6. Assumed construction to be during normal working hours.
7. The construction costs shall be used for budgeting and planning purposes only and shall not be used as an actual bid as given by a contractor to build the project.
8. The construction totals are rounded to the nearest $10.00.

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Cassidy House Exterior (Pages 2-3)					
1	Remove and haul-off wood trim at all sides of exterior windows.	500	L.F.	4.00	$2,000.00
2	Wood trim at exterior windows:				
	Sills.	110	L.F.	12.00	1,320.00
	Jambs.	280	L.F.	5.00	1,400.00
	Heads.	110	L.F.	15.00	1,650.00
3	Replace exterior skirt board at exterior walls.	120	L.F.	11.00	1,320.00
4	Remove existing corner boards.	4	EA.	50.00	200.00
5	Remove and haul-off exterior horizontal shiplap siding.	2,500	S.F.	2.00	5,000.00
6	Exterior horizontal painted wood siding - 6-3/4 wide.	2,500	S.F.	9.00	22,500.00
7	Remove and haul-off exterior windows.	27	EA.	150.00	4,050.00
8	Exterior wood double hung windows thermally broke - +/- 20 S.F. each.	27	EA.	900.00	24,300.00
9	Remove and haul-off exterior mechanical room door.	1	EA.	100.00	100.00
10	Remove and haul-off exterior wall for screened porch.	50	S.F.	14.00	700.00
11	Exterior window screens at NE porch with removable storm windows - +/- 20 S.F. each.	2	EA.	650.00	1,300.00
12	Exterior wood framed wall with wood siding and interior wood panels / trim.	40	S.F.	30.00	1,200.00
13	Reconstruct exterior brick chimney at roof.	30	S.F.	150.00	4,500.00
14	Replace exterior front door with 15 lite French door, frame and hardware.	1	EA.	1,600.00	1,600.00

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Cassidy House Exterior (Pages 2-3)					
15	Exterior wood screened wall / trim at west main entrance porch.	300	S.F.	55.00	16,500.00
16	Exterior screen door, frame and hardware at west main entrance porch.	1	EA.	450.00	450.00
17	Infill exterior mechanical room door with siding and interior bead board on stud wall.	25	S.F.	55.00	1,380.00
18	Reconstruct / install exterior whole house fan with damper - 20 S.F.	1	EA.	1,500.00	1,500.00
19	Miscellaneous exterior patching and finishing allowance.	1	L.S.	3,000.00	3,000.00
	SUBTOTAL =				**$95,970.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	25%			$23,990.00
	SUBTOTAL =				**$119,960.00**
	Design Contingency -	0%			$0.00
	SUBTOTAL =				**$119,960.00**
	Escalation -	0%			$0.00
	CONSTRUCTION TOTAL =				**$119,960.00**

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Cassidy House Interior (Pages 4-5)					
1	Remove and haul-off interior gyp board at walls / ceilings except at Rooms 104, 106 and 202 - 170 L.F. x 10' x 2 sides = 3,400 S.F. + 1,600 S.F. + 200' x 10' = 2,000 =	7,000	S.F.	1.50	$10,500.00
2	Cotton fabric with wallpaper at walls / ceiling and additional 2X wood studs / wood ceiling joists.	7,000	S.F.	7.00	49,000.00
3	Fill-in interior floor grate.	1	EA.	300.00	300.00
4	Remove and haul-off wood trim interior doors and interior of exterior windows - 17 each x 14' x 2 sides = 476' + say 500' + 500' =	1,000	L.F.	3.00	3,000.00
5	Wood trim interior doors and interior of exterior windows with 1 x 6 and 1 x 8 with 1/4 round.	1,000	L.F.	10.00	10,000.00
6	Remove and haul-off interior wood block cornice at top of walls / ceiling.	600	L.F.	4.00	2,400.00
7	Interior wood cove molding at top of walls / ceiling.	600	L.F.	8.50	5,100.00
8	Clean / repair / remove paint at interior door hardware - 50% x 18 =	9	Sets	180.00	1,620.00
9	Interior door hardware to match existing - 50% x 18 =	9	Sets	450.00	4,050.00

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Cassidy House Interior (Pages 4-5)					
10	Miscellaneous interior patching and finishing allowance for fire protection	450	SF	35.00	15,750.00
	SUBTOTAL =				**$101,720.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	25%			$25,430.00
	SUBTOTAL =				**$127,150.00**
	Design Contingency -	0%			$0.00
	SUBTOTAL =				**$127,150.00**
	Escalation -	0%			$0.00
	CONSTRUCTION TOTAL =				**$127,150.00**
HZ	Hazardous Material Abatement				
	Doors	0	EA.	0.00	$0.00
	Windows	0	EA.	0.00	$0.00
	Water Heater removal/replacement w/similar	1	EA.	2,500.00	$2,500.00
	Subtotal				$2,500.00
	General Conditions, OH, Profit, Insurance and Bond	25%			$630.00
	Subtotal Hazardous Materials Abatement Allowance				$3,130.00

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Cassidy House Structure (Page 6)					
1	Excavation at exterior wall for new concrete footings and CMU walls.	120	L.F.	40.00	$4,800.00
2	Remove and haul-off existing foundations / shoring.	120	L.F.	60.00	7,200.00
3	Exterior concrete footings / shoring.	120	L.F.	75.00	9,000.00
4	Exterior face brick at foundation walls.	240	S.F.	35.00	8,400.00
5	CMU foundation walls.	120	L.F.	125.00	15,000.00
6	Exterior foundation drain system at perimeter of house.	170	L.F.	16.00	2,720.00
7	Repair partial interior termite floor at first and second floors - 1,800 S.F. x 30% =	540	S.F.	10.00	5,400.00
8	Repair interior broken hip rafters in attic.	2	EA.	300.00	600.00
9	Interior wood knee wall under dormer.	50	S.F.	12.00	600.00
10	Site protection - trees and landscaping.	1	L.S.	3,000.00	3,000.00
11	Utility shut-offs and reconnection of water, sanitary and gas.	3	EA.	3,000.00	9,000.00
12	Reconnect stoops and porches.	1	L.S.	10,000.00	10,000.00
13	Rebuilding ADA ramp.	1	L.S.	6,000.00	6,000.00
	SUBTOTAL =				**$81,720.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	25%			$20,430.00
	SUBTOTAL =				**$102,150.00**
	Design Contingency -	0%			$0.00
	SUBTOTAL =				**$102,150.00**
	Escalation -	0%			$0.00
	CONSTRUCTION TOTAL =				**$102,150.00**

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	**QTY. NO. UNITS**	**QTY. UNIT**	**MATERIAL & LABOR PER UNIT**	**MATERIAL & LABOR TOTAL**
ITEM	**DESCRIPTION**				
Visitor Center Exterior (Pages 7-8)					
1	Repair broken / damaged exterior window panes.	8	EA.	110.00	$880.00
2	Putty and paint all of exterior window frames.	39	EA.	210.00	8,190.00
3	Repair / reinstall original window pulley system at all of exterior windows.	39	EA.	190.00	7,410.00
4	Remove and rebuild exterior areas of cracking and spalled brick - 160' x 12' = 1,920 S.F. x 20% =	380	S.F.	25.00	9,500.00
5	Clean and tuckpoint all existing exterior brick - 160' x 12' =	1,920	S.F.	7.50	14,400.00
6	Replace exterior glass block window with double hung window to match existing.	15	S.F.	50.00	750.00
7	Interior storm windows at existing exterior windows.	25	EA.	230.00	5,750.00
8	Remove exterior windows AC units on second floor and repair windows.	3	EA.	450.00	1,350.00
9	Strip and repaint all exterior stucco.	500	S.F.	5.00	2,500.00
10	Repair partial exterior crack stucco - 500 S.F. x 30% =	150	S.F.	8.00	1,200.00
11	Reconstruct original kitchen porch per HSR plans - exterior walls 460 S.F. and roof 200 S.F.	1	L.S.	17,000.00	17,000.00
12	Exterior foundation drain system at perimeter of house incl site regrading-repair.	230	L.F.	32.50	7,480.00

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Visitor Center Exterior (Pages 7-8)					
13		0	0	0.00	0.00
	SUBTOTAL =				**$76,410.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	25%			$19,100.00
	SUBTOTAL =				**$95,510.00**
	Design Contingency -	0%			$0.00
	SUBTOTAL =				**$95,510.00**
	Escalation -	0%			$0.00
	CONSTRUCTION TOTAL =				**$95,510.00**

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Visitor Center Interior (Page 9)					
1	Repair interior hardwood floor at widened door opening.	1	EA.	300.00	$300.00
2	Repair / refinish second floor hardwood flooring in Room 201.	380	S.F.	3.50	1,330.00
3	Hardwood flooring at interior of unfinished second floor Rooms 202 and 203.	420	S.F.	10.00	4,200.00
4	Remove interior rigid insulation / reinsulate with batt insulation and install gyp board / paint at Rooms 202 and 203 - 95' x 8' =	760	S.F.	6.00	4,560.00
5	Remove interior wood veneer wall finish at Room 201 and install gyp board and paint - 100' x 8' =	800	S.F.	5.00	4,000.00
6	Repair interior and exterior doors as needed at all doors.	10	EA.	210.00	2,100.00
7	Miscellaneous interior patching and finishing allowance for fire protection	450	SF	35.00	15,750.00
8	Install period hardware at 50% doors.	5	EA.	350.00	1,750.00
	SUBTOTAL =				**$33,990.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	25%			$8,500.00
	SUBTOTAL =				**$42,490.00**
	Design Contingency -	0%			$0.00
	SUBTOTAL =				**$42,490.00**
	Escalation -	0%			$0.00
	CONSTRUCTION TOTAL =				**$42,490.00**

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Visitor Center Structure (Pages 10-11)					
1	Excavation at exterior wall for new concrete footings and CMU walls.	185	L.F.	40.00	$7,400.00
2	Remove and haul-off existing foundations / shoring.	185	L.F.	60.00	11,100.00
3	Exterior concrete footings / shoring.	185	L.F.	75.00	13,880.00
4	Exterior face brick at foundation walls.	370	S.F.	35.00	12,950.00
5	CMU foundation walls.	185	L.F.	125.00	23,130.00
6	Add floor joist hangers to all floor structure in crawl space.	160	EA.	6.00	960.00
7	Repair floor joists cut for plumbing work.	10	EA.	250.00	2,500.00
8	Site protection - trees and landscaping.	1	L.S.	3,000.00	3,000.00
9	Utility shut-offs and reconnection of water, sanitary and gas.	3	EA.	3,000.00	9,000.00
10	Reconnect stoops and porches.	1	L.S.	15,000.00	15,000.00
11	Rebuilding ADA ramp.	1	L.S.	10,000.00	10,000.00
	SUBTOTAL =				**$108,920.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	25%			$27,230.00
	SUBTOTAL =				**$136,150.00**
	Design Contingency -	0%			$0.00
	SUBTOTAL =				**$136,150.00**
	Escalation -	0%			$0.00
	CONSTRUCTION TOTAL =				**$136,150.00**

11/21/13	***BCC Building Cost Consultants, Inc.*** National Park Service President William Jefferson Clinton Birthplace Home National Historic Site Hope, Arkansas BCC Job No.: 13-11-0159	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL
ITEM	**DESCRIPTION**				
Visitor Center Structure (Pages 10-11)					
HZ	Hazardous Material Abatement				
	Doors	12	EA.	100.00	$1,200.00
	Windows	26	EA.	250.00	$6,500.00
	Trim	1165	LF	3.00	$3,500.00
	Subtotal				$11,200.00
	General Conditions, OH, Profit, Insurance and Bond	25%			$2,800.00
	Subtotal Hazardous Materials Abatement Allowance				$14,000.00
Comfort Station Exterior (Page 11)					
1	Repair cracks in brick exterior walls - 800 S.F. x 30% =	240	S.F.	16.00	$3,840.00
	SUBTOTAL =				**$3,840.00**
	General Conditions, Overhead, Profit, Insurance and Bond -	25%			$960.00
	SUBTOTAL =				**$4,800.00**
	Design Contingency -	0%			$0.00
	SUBTOTAL =				**$4,800.00**
	Escalation -	0%			$0.00
	CONSTRUCTION TOTAL =				**$4,800.00**

ITEM	DESCRIPTION	QTY. NO. UNITS	QTY. UNIT	MATERIAL & LABOR PER UNIT	MATERIAL & LABOR TOTAL		
	11/21/2013						
CASSIDY HOUSE RECOMMENDATIONS							
Mechanical							
	Dry-Pipe Fire Sprinkler System (incl. fire utility and single zone dry-pipe sprinkler system	825	S.F.	$18.18	$15,000		
	Subtotal Cassidy House Mechanical				**$15,000**		
Electrical							
	Primary Power Distribution	825	S.F.	$12.12	$10,000		
	Electrical Service	825	S.F.	$14.54	$12,000		
	Interior Wiring/Grounding	825	S.F.	$9.69	$8,000		
	Lighting/Devices	825	S.F.	$0	$0		
	Exit Lighting/Emergency Lighting	825	S.F.	$0	$0		
	Fire Alarm/Intrusion Alarm System	825	S.F.	$8.48	$7,000		
	Communication System	825	S.F.	$0	$0		
	Subtotal Cassidy House Electrical				**$37,000**		
Ground Source Heat Pump							
	Cassidy House Alternate HVAC System - Geothermal Heat Pump						
	incl. wells, piping, circ pumps, heat pumps, controls and electrica	825	S.F.	$30.30	$25,000		
	Subtotal Cassidy Ground Source Heat Pump(Alternate HVAC System)				**$25,000**		
	TOTAL Cassidy House Mechanical & Electrical w/o Ground Source Heat Pump					**$67,000**	-$25,000
	TOTAL Cassidy House Mechanical & Electrical with Ground Source Heat Pump					**$92,000**	*used in estimate*
VISITOR CENTER RECOMMENDATIONS							
Mechanical							
	Second Floor HVAC- Option 1 - Ductless Split System						
	mechanical (incl. 3-systems for the 2nd floor individual rooms & 1-system for IT room)	840	S.F.	$14.29	$12,000		
	electrical	840	S.F.	$7.14	$6,000		
	Subtotal Visitor Center Mechanical w/HVAC Option 1				**$18,000**		
	Second Floor HVAC- Option 2 - Gas-Fired Furnace/Condensing Unit						
	mechanical (incl. 1-furnace system to serve 2nd floor rooms and 1-ductless split-system for IT Room)	840	S.F.	$53.57	$45,000		
	electrical	840	S.F.	$5.95	$5,000		
	Subtotal Visitor Center Mechanical w/HVAC Option 2				**$50,000**		
	Dry-Pipe Fire Sprinkler System (incl. fire utility and single-zone dry-pipe sprinkler system	1670	S.F.	$14.97	$25,000		*used in estimate*
	Plumbing - Instantaneous Water Heater	1670	S.F.	$0.60	$1,000		*used in estimate*

Electrical							
	Electrical Service	1670	S.F.	$8.98	$15,000		
	Interior Wiring/Grounding	1670	S.F.	$8.98	$15,000		
	Grounding	1670	S.F.	$0.89	$1,500		
	Exit Lighting/Emergency Lighting	1670	S.F.	$2.09	$3,500		
	Lighting	1670	S.F.	$7.18	$12,000		
	Devices	1670	S.F.	$1.19	$2,000		
	Fire Alarm/Intrusion Alarm System	1670	S.F.	$5.98	$10,000		
	Communication System	1670	S.F.	$5.98	$10,000		
	Subtotal Visitor Center Electrical				**$69,000**		*used in estimate*
Ground Source Heat Pump							
	Visitor Center Alternate HVAC System - Geothermal Heat Pump						
	incl. wells, piping, circ pumps, heat pumps, ductwork for 2nd floor, controls and electrica	1670	S.F.	$41.92	$70,000		
	Subtotal Ground Source Heat Pump(Alternate HVAC System)				**$70,000**		
	TOTAL Visitor Center MEP w/ 2nd Floor HVAC Option 1					**$113,000**	-$52,000
	TOTAL Visitor Center MEP w/ 2nd Floor HVAC Option 2					**$145,000**	-$20,000
	TOTAL Visitor Center MEP w/ Ground Source Heat Pump					**$165,000**	*used in estimate*
COMFORT STATION RECOMMENDATIONS							
Electrical							
	Electrical Service	220	S.F.	$68.18	$15,000		
	Interior Wiring/Grounding	220	S.F.	$18.18	$4,000		
	Exit Lights/Emergency Lights	220	S.F.	$4.54	$1,000		
	Lighting	220	S.F.	$18.18	$4,000		
	Devices	220	S.F.	$2.27	$500		
	Fire Alarm/Intrusion System	220	S.F.	$9.09	$2,000		
	Total Comfort Station(Incl. Electrical Recommendations)					**$26,500**	*used in estimate*