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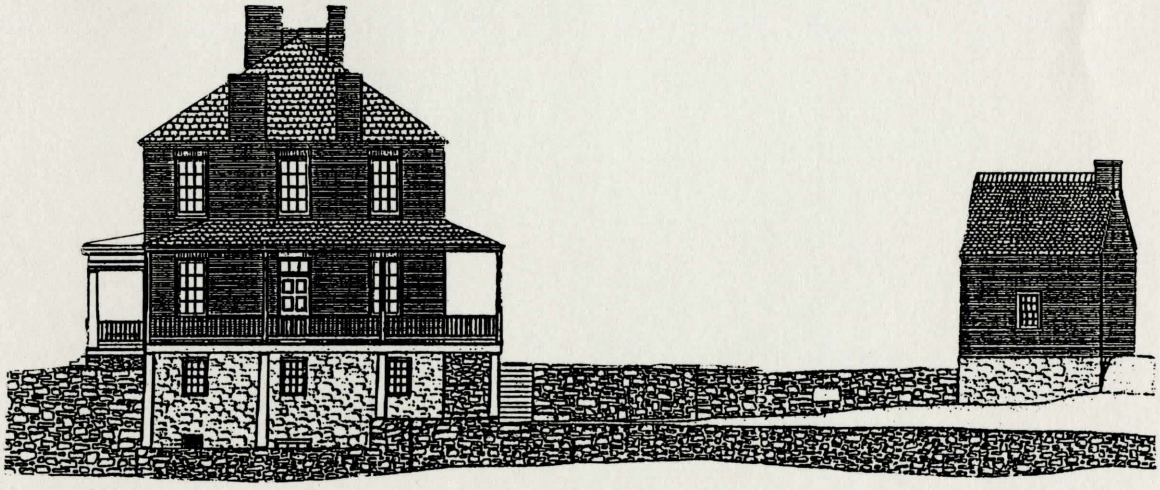
SHERRICK HOUSE
HISTORIC STRUCTURES REPORT



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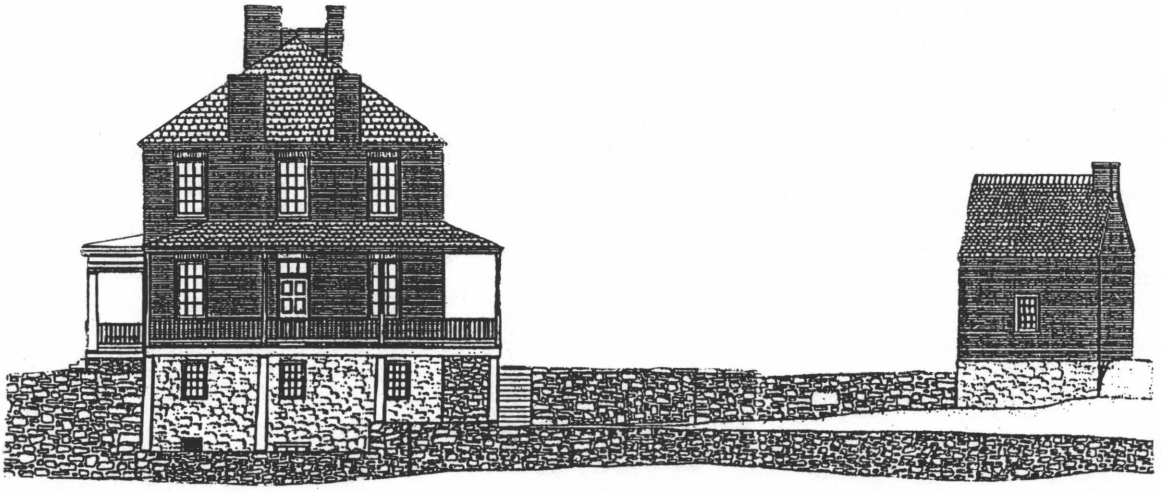

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FINAL SUBMISSION

SHERRICK HOUSE HISTORIC STRUCTURES REPORT: PHYSICAL HISTORY AND CONDITION ASSESSMENT, ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND

Contract No. CX-3000-1-0067
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Oehrlein & Associates Architects
1702 Connecticut Avenue NW
Washington, DC 20009
(202) 387-8040

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EXECUTIVE SUMMARY

The Sherrick House and Farm are of exceptional historical and architectural importance. The house and farm are historically important because of their location in the midst of the Battle of Antietam and its aftermath. The house and farm are architecturally important as a largely intact and unaltered example of an early 19th century farmstead. Because of the importance of the house and farm, any treatment must be carried out with great sensitivity to the consequences which an action may have on their long-term preservation.

The house remains as it was originally configured when it was built around 1835. It has two brick stories and an attic, built into a steeply-sloping hillside with a rubble stone foundation enclosing a basement and a sub-basement. A covered entry porch on the west elevation and a covered porch over the entire south elevation were constructed of wood. A natural spring flows out of the bedrock in the sub-basement. The house was built as an integral part of a farmstead which included rubble stone retaining walls, a brick summer kitchen, a timber framed barn on a stone foundation, and other outbuildings.

The interior of the house was built with wood interior floor and wall framing, plaster walls, wood mouldings, wood six-panel doors with walnut graining, a grand wood staircase, an enclosed servant stair, brick fireplaces with wood mantels, and wood floors. Distinctive period hardware was used on the house, including Carpenter latches, Norfolk latches, Suffolk latches, an elbow latch, Baldwin cast iron hinges, Clark cast iron hinges, and wrought iron hinges and latches.

The appearance and configuration of the house and farmstead at their most significant moment in its history, the 1862 Battle of Antietam, were documented in a photograph by Alexander Gardner and in maps by Charles Ourand and others. These documents provide invaluable information about the house and farm in 1862, and must be consulted as fundamental references for any proposed work.

When the Sherrick House was purchased by the NPS in 1964, very little had been altered to the original appearance of the house. Some deterioration and some changes had occurred, but they were relatively minor. Since becoming NPS property, some repairs, alterations and deterioration have occurred, but the house still remains remarkably intact and unaltered.

The major alterations which have taken place to the farmstead have been outside of the house. The barn was lost to fire, and a stone outbuilding east of the summer kitchen has been removed. Site walls have been rebuilt, fences have been changed, concrete walks, landings, steps and stairs have been built around the house, and electrical service to the house has introduced overhead lines and an electric meter. New wood roofs which have been added to the house and the south porch, and changes to the roof of the west entry porch have altered the appearance of the house.

On the interior of the house the alterations have been relatively minor, consisting of the introduction of electrical service, including electrical panels, wiring, receptacles and light

fixtures, the addition of storm windows, and repainting of many of the walls and mouldings.

The greatest changes on the house are the result of deterioration of building materials. On the exterior, the changes to the west entry porch roof have resulted in deterioration of the framing and sheathing which is still continuing. Rodents have caused damage to window bars, wood doors, and masonry. In miscellaneous areas, the pointing of the brick and stone masonry has deteriorated, and minor spalling of bricks has occurred.

On the interior, the floor framing and flooring at the basement has deteriorated as a result of high humidity. Plaster and paint has deteriorated in the basement and sub-basement, and 1st floor framing has deteriorated. Throughout the house there is minor cracking and water damage to the plaster walls and ceilings. Steps on the servant stairs to the basement are loose.

Analysis of the current life safety, structural, electrical, mechanical, and plumbing codes shows that there are areas where the Sherrick House does not comply with the current requirements of a residence or a exhibit house open to the public. These areas of non-compliance include exit deficiencies, fire safety deficiencies, non-compliance with handicapped accessibility standards, sub-standard lighting, ventilation, electrical, mechanical and plumbing systems, and structural members which do not provide the code-required structural capacity.

Recommendations for the house are divided into four options. These options are listed in order of priority. Option I is the work necessary to the preservation of the historic fabric; Option II restores missing or altered historic fabric; Option III is a proposed use for the house as a site for special tours; and Option IV explores the proposed use of the house as a single family residence, an option which is not recommended. As a minimum, the preservation work of Option I should be carried out. The restoration work of Option II is the next priority, and should be carried out as budgets allow. Option III, providing compliance with the Uniform Federal Accessibility Standards, would be necessary if the house is used for tours. Option IV is not recommended, as the changes which would be required to use the house as a single family residence would necessitate damage to the historic fabric of the house.

The recommended preservation work for Option I includes:

- Repair the deteriorated wood basement floor.
- Repair the deteriorated wood cornice and roof above the entry porch.
- Update the electrical and heating systems.
- Evict groundhogs and repair foundation masonry and wood doors which they have damaged.
- Perform cyclical maintenance, such as roofing and painting of exterior wood.

The work necessary for Option II, to restore the house to its appearance in 1862 includes:

- Reroof the house to match the Civil War era roofing, with Dutch laps where appropriate, on both the house and the summer kitchen.
- Restore plantings, fencing, paths, steps, stone retaining walls, and the wooden sheds on the east side of the summer kitchen.
- Rebuild the missing stone outbuilding to the east of the summer kitchen.
- Rebuild the west entry porch roof to match the original hip roof.
- Bury electric lines underground and move the electric meter from the southwest corner of the house to an obscure location either at the north elevation or in the basement interior.

The work which would be required for Option III, to make the house handicapped accessible, is to construct a ramp and a path to the east door.

The work needed to complete Option IV, conversion of the house to a residence, is extensive. The construction of kitchen and bathroom facilities, installing electrical and mechanical systems which comply with current standards, and complying with current life safety codes would require major changes. This work would damage, remove and cover much of the historic fabric of the house and would be largely irreversible. The value of the house as a largely unaltered example of an 1830's farm house would be greatly diminished if these changes were implemented.

PART 1. DEVELOPMENTAL HISTORY

PART 1. DEVELOPMENTAL HISTORY

HISTORICAL BACKGROUND AND CONTEXT

HISTORICAL SIGNIFICANCE

The Sherrick House and Farm contribute significantly to the historic context of the Antietam Battlefield. The farmstead's location in the midst of the afternoon phase of the Battle of Antietam, the use of the house and barn by Union troops after the battle as a hospital, and the use of the house by the Mumma family as a temporary home during the months following the battle make the farmstead an important feature in the interpretation of the Antietam National Battlefield Site.

Part of the afternoon phase of the fighting on September 17, 1862 took place on the Sherrick Farm and around the Sherrick Farmstead.[1] Following a three-hour siege of the Burnside Bridge southeast of the Sherrick farm, nearly 10,000 Union troops crossed Antietam Creek between 1:00 and 3:00 P.M. and marched towards the town of Sharpsburg, many of them moving across the Sherrick farm.[2] To the north of the Sherrick barn, Colonel Benjamin Christ's brigade of the Union Ninth Corps confronted Gen. Micah Jenkin's South Carolina Brigade and were pinned down by artillery fire. As additional Ninth Corps forces diverted the Confederate artillery, Christ's Brigade was able to move forward, forcing the Confederate troops to retreat towards Sharpsburg. The Ninth Corps appeared to have control of the battlefield and Christ's brigade was almost to Sharpsburg when three thousand Confederate troops under the command of A.P. Hill arrived after a seventeen mile march from Harper's Ferry. The Ninth Corps was outflanked by the Confederate forces, and the Union troops withdrew to the vicinity of Antietam Creek. The Sherrick farm remained between the lines of the Union and Confederate forces until the early morning of September 19, when the Confederate Army retreated back across the Virginia border.

Christ's brigade suffered 244 casualties on the Sherrick farm. Following the battle, the Sherrick Farmstead, along with many other farmhouses and barns, was used as a hospital for wounded soldiers.[3] While occupied by Union troops, the stores, supplies and household goods at the farmstead were consumed and looted by the occupying troops. An inventory of items lost by Sherrick can be seen in the claim made by his estate in 1876.[4]

The Sherrick House, barn and other outbuildings were outside of the main fighting of the battle. The siting of the farmstead in a low spot in the topography made it a dangerous place to be during the battle, exposed to gunfire and cannon fire from almost all directions. Troop movements on the Sherrick Farm took place mostly along the high ground to the east and north of the farmstead, away from Burnside Bridge Road which follows a low draw between Sharpsburg and Antietam Creek. Even more fighting took place to the south and west of the farmstead, across Burnside Bridge Road from the Sherrick Farm, and in the hills around the Otto Farmhouse.

HISTORICAL SIGNIFICANCE (CONT'D)

The owners of the house at the time of the Battle of Antietam, 60 year-old Joseph Sherrick, Jr. and his 55 year-old wife Sarah, were not at the house during the battle.[5] They either left the farm as it became apparent that a battle was about to be fought in the area, or they had already moved out of the house. The Sherricks never moved back into the house after the war, even though the house had suffered no damage. A tenant farmer, Leonard Emmert, was working the farm and living in a tenant house on the Sherrick Farm at the time of the battle, and was back at the farm soon after the battle.[6]

During the winter of 1862-1863, Samuel Mumma, his wife and eight children lived in the Sherrick House, and stayed there until the following spring. Mumma and Sherrick were fellow parishioners at the Dunker Church. The Mumma farm had been at the center of the action in the battle, and the entire farmstead had been burned to the ground by Confederate forces during the battle. In 1906 Samuel Mumma, Jr., six years old at the time of the battle, wrote a letter describing his family's experience during the battle, confirming the family's stay at the Sherrick House until spring.[7]

ARCHITECTURAL/CULTURAL SIGNIFICANCE

The Sherrick House is a rare and unique example of a virtually unaltered 1830's farmhouse. It is a well-preserved example of a center hall brick house for a prosperous farm in the western Maryland region. The 1830's interior is largely intact, with original doors, windows, hardware, plaster, mantels, mouldings, paint and other materials unaltered from the original construction. The configuration of the house is unique in the way it is built into the side of the hill over a spring.

The outbuildings and the ruins of the barn are architecturally significant as part of the overall configuration of the farmstead. The house, the outbuildings, the foundation walls of the barn and the retaining walls are the remaining built components of a landscape ensemble which made up the farmstead. The summer kitchen, the corn crib and the ruins of the barn exhibit typical 19th century design and construction techniques of the region.

ARCHEOLOGICAL SIGNIFICANCE

The archeological significance of the farmstead has yet to be established. It is likely that the site contains evidence indicating the locations of buildings, walls, roads and other missing built and natural features which no longer exist, dating from the time of the Civil War and earlier. It is also likely that there are historic artifacts from the time of the Battle of Antietam, which may have been left at the site during the battle or during the occupation by Union troops. These artifacts may help to define the role the farm and its occupants played in the confrontation.

The spring which is now in the sub-basement level of the house may have been the site of earlier settlements, but the construction of the house and the adjacent road has disturbed any evidence which may have remained.

CHRONOLOGY OF DEVELOPMENT AND USE

THE FARMSTEAD'S ORIGINAL CONFIGURATION

The Farm, 1796

The original 194 acres of the farm were purchased by Joseph Sherk in 1796 from Henry Orndoff.[8] The wording of the 1796 deed indicates that the land sold by Orndoff may already have been established as a farm. In the deed there is reference to existing "houses, outhouses, barns, fields, woods, underwoods, meadows, orchards, hereditaments and appurtenances", and there is reference to a "water ditch that is made for the use of watering the meadow."[9] Joseph Sherk, later known as Joseph Sherrick, Sr., subsequently enlarged the farm when he purchased additional nearby parcels of land in 1821, 1826, and 1833.

Joseph Sherrick, Jr., the son of Joseph Sherrick, Sr. and the owner of the property at the time of the Battle of Antietam, purchased parcels of land adjacent to his father's farm in 1833, 1838, and 1841. In 1838 he acquired the land owned by his father. The configuration or extent of the buildings on the farm at the time Joseph Sherrick, Jr. took over the farm is not known. It can be assumed, however, that by the time that he took over the farm it was well-established and there was a complete farmstead somewhere on the property with house, barn, and other outbuildings.

Brick Farmhouse built c. 1835

Dating of the construction of the house is based on existing features of the house which appear to be original, such as the Carpenter door latches, cast iron Baldwin hinges, wood mouldings at windows, doors, baseboards and chair rails, and the overall construction and style of the house. It is possible that the house was built by Joseph Sherrick, Jr. around the time that he took over the farm from his father in 1838.

The entire house was built at one time. (See photographs and HABS drawings. HABS room designations will be used in the discussion of the plans, unless stated otherwise). No major additions or modifications to the house have occurred during its history. The house was built on a steeply-sloping south-facing site, with a sub-basement and a basement built into the hillside with rubble stone walls, brick walls which rise for two stories, and an attic (see Photo 1). A wood entry porch was built on the west elevation, and a wood porch at the 1st floor level was built across the entire south elevation and part of the east elevation of the house.

The foundation, sub-basement and basement walls of the house were made of rubble stone set directly on bedrock. The same rubble stone was used throughout the farmstead for retaining walls on the steeply-sloping site, for outbuilding foundations, and for the foundation and lower level walls of the barn (see Photos 39 and 40).

THE FARMSTEAD'S ORIGINAL CONFIGURATION

Brick Farmhouse built c. 1835 (cont'd)

The site dropped off steeply to the south, so that the main entry on the west was only four steps up from grade, but a tall retaining wall created a drop in grade which exposed stone basement and sub-basement levels on the south elevation (see Photo 12).

The exterior walls of the two main floors of the house were brick, laid in a Flemish bond pattern on the west elevation (see Photo 2), and a common bond pattern with a course of headers every sixth course on the north, east and south elevations. Flat arches spanned the window and door openings. At the south the wood roof was hipped with two chimneys, and on the north the brick wall continued up to form a gable with two chimneys (see Photos 8 and 9).

On the west elevation tapered square columns supported the roof of a wood entry porch (see Photos 2 through 6). A four light transom window was built over the entry door. Six-over-six double hung wood windows were used throughout the house. On the west elevation the windows and the main entry divided the facade into five bays. On the south elevation the windows and the entry to the porch divided the facade into three bays. The east elevation was divided into three bays. A single window in the gable at the attic level was on the north facade.

The sub-basement of the house extended under less than half of the basement level. The sub-basement was divided into two spaces, the spring room, approximately 13' by 12', and a narrow cool storage room approximately 4 1/2 feet wide (see Photo 14). A wall of rubble stone separated the two sub-basement spaces. In the cool storage room an outcropping of bedrock was left intact, filling much of the cool storage room at the north end.

The only door to the sub-basement was at the bottom of a set of wood stairs under the south porch (see Photo 11). A single opening with wood bars in the south wall of the cool storage room provided light and ventilation to the sub-basement space (see Photo 12).

The sub-basement was built over a natural spring which flowed from bedrock into a trough in the rubble stone floor, providing a water supply for the house. From the trough in the floor the water flowed under the south wall of the sub-basement, forming a pool west of the landing at the bottom of the steps to the sub-basement.

The basement level extended beneath the entire area of the house and was divided into two main spaces, a storage space on the north, and a kitchen on the south (see Photos 16 through 18). The storage space floor was made up of dirt and stone, and the kitchen floor was a wood floor over the sub-basement and a crawl space. A wood partition of vertical beaded boards at the west end of the kitchen divided off

THE FARMSTEAD'S ORIGINAL CONFIGURATION

Brick Farmhouse built c. 1835 (cont'd)

a small pantry. Access to the basement level was by a door on the east elevation, or from the 1st floor by an enclosed wood stair from the 1st floor in the northeast corner of the kitchen. A small closet with a beaded board door was built under the enclosed stairs. Access to the storage space at the north of the basement was by a beaded board door from the kitchen. The walls of the kitchen were plastered rubble stone, except for the board wall at the pantry at the east end and the board enclosure around the stairs at the northeast corner. A large fireplace was built into the wall on the south side of the kitchen between two windows. There was a third basement window at the south end of the pantry. In the main kitchen area the ceiling was plaster on wood lath. In the pantry the joists above were left exposed and were limewashed.

The storage space on the north end of the basement was left unfinished, with exposed, limewashed floor joists on the ceiling, unplastered rubble stone walls and a dirt floor. Outcroppings of bedrock at the north, east and west walls of the storage room projected into the space, with rubble stone foundation walls set directly on the bedrock. Two small openings, one each on the east and the west, lit and ventilated the storage space. The openings were in small wells below finish grade on the outside, and had horizontal wood bars over the openings.

The two main floors of the house were built in a center hall plan. The main block of the house, not including the porches, was 42'-1" by 31'-1". The stair hall was 8' wide and ran east from the west entry, at the center of the house, with two rooms to the north and two rooms to the south of the hall on both floors. An additional small dressing room was located at the west end of the center hall at the 2nd floor. The open stair in the center hall ran between the 1st floor, 2nd floor and the attic, and an enclosed servant stair in the north end of the southeast rooms ran between the basement, 1st floor, and 2nd floor. At the 1st and 2nd floors, the brick exterior walls of the house were finished on the interior with plaster.

The south wall of the stair hall rested on the rubble stone wall between the basement kitchen and storage space and was also built as a brick bearing wall at the 1st and 2nd floors and both sides of the wall were finished with plaster. The other interior walls on the main floors were framed in wood, with wood lath and plaster on the finished faces (see framing plans, SK1 through SK8 in the structural drawings). The floors at all the levels were framed in wood, except in the sub-basement and the storage room of the basement where the floor was on grade. The wood floors were typically 1" random width tongue-and-groove flooring laid directly on the floor joists. All the stairs in the house were framed and finished in wood. The 2nd floor landing at the top of the main stair was cantilevered from the north wall of the stair hall.

THE FARMSTEAD'S ORIGINAL CONFIGURATION

Brick Farmhouse built c. 1835 (cont'd)

The brick walls stopped at the attic floor level on the south, east and west elevations. Rafters on these three sides of the house rested on the wall just above the attic floor, forming a hip roof. On the north elevation the brick wall was built up to the roof ridge to form a gable end with two chimneys. The roof was covered with wood shingles. A weathered cedar shingle found in the attic was not tapered and still had the two cut nails with which it was originally attached. The shingle is 4 3/8" wide by 12 3/4" long, and the cut nails are 1 7/8" long.

The floors in all the rooms of the 1st floor, at the stairs, and at the 2nd floor stair hall were stained at the perimeter to resemble wood graining. The width of the staining at the perimeter of the rooms was from one to three feet wide, and the center part of the floors were left unfinished. This staining pattern indicates that the floors were covered with rugs and the stairs were covered with runners. The rugs and runners extended to cover the edges of the stained perimeter.[10]

All of the rooms on the 1st and 2nd floors were trimmed with wood bases and chair rails. Two different sets of wood mouldings were used in the main rooms of the house. The two sets of mouldings differentiated the more important spaces from the less important ones. The more elaborate set of mouldings (Moulding Set "A" in the measured drawings) was in the parlor, dining room and stair hall, and the less elaborate set of mouldings (Moulding Set "B") was in the other living spaces on the 1st and 2nd floors.

At the windows, the chair rail formed the apron for the window sills. The exterior doors and the windows at the northeast parlor on the 1st floor had paneled jambs, and all the other doors and windows were built with flat wood jambs. Windows throughout the house were six-over-six double-hung windows. All of the 1st and 2nd floor windows had shutters.

On the 1st floor, fireplaces were built in the parlor, dining room and bedroom. On the 2nd floor, fireplaces were built in the northwest bedroom and the southwest bedroom. All of the fireplaces had brick fireboxes and vented through brick chimneys which were integral with the exterior brick walls of the house (see Photos 25 through 27). The fireplace surrounds were plastered and all of the fireplaces had wood mantels and brick hearths. The plaster surrounds in the parlor and the dining room were marbleized.

The main stair of the house was framed and trimmed in wood (see Photos 19 through 21). The stairs ran from the 1st floor up the south wall of the stair hall for 14 risers to a landing the full width of the stair hall, turned and ran an additional 6 risers up the north wall of the stair hall to a cantilevered landing at the 2nd floor level. The stair continued up from the 2nd floor over the lower stair with 11

unpainted risers to a landing and 6 more risers to the attic level. The handrail on the exposed side of the stair was a continuous 2" wide rail supported on 1 1/8" by 5/8" rectangular balusters. Turned newel posts were at each end and at each turn of the handrail. A wave moulding and stringer moulding ran continuously on the face of the stringer.

The base and chair rail from the 1st floor stair hall (set "A") continued up the stair from the 1st floor, and terminated at the door casing of the door to the northeast bedroom on the 2nd floor. On the opposite side of the door a base and chair rail continued, but using the simpler moulding set (set "B").

A partially enclosed servant stair ran from the basement kitchen to the 1st floor servant room, and from the servant room to the 2nd floor nursery (see Photos 17, 22 and 23). This stair was steeper and narrower than the main stair, and was simply finished.

Doors at the sub-basement, basement and attic were 3/4" to 1 1/8" thick vertical board doors with beaded tongue-and-groove joints (see Photos 13, 16, and 17. The exterior door to the basement had a fixed six light window. The doors on the 1st and 2nd floors were typically six panel doors, from 1 1/8" to 1 1/2" thick, varying with the configuration of the panels in the doors (see Photos 4, 6, 9, 19, 20, 22, 23, 24, and 28). The configuration of the panels was dependent on the importance of the room which it faced. From the most important to the least important, on the 1st floor the doors had raised panels with applied mouldings, raised panels without applied mouldings, or flat panels. On the 2nd floor the hierarchy was similar, except that the mouldings on the doors were not applied but were moulded as part of the rails and stiles of the doors. All of the doors of the house were grained so that the pine panel doors had the appearance of dark walnut. Gold colored 1/16" wide pinstripes were painted on each panel, 3/8" from the raised edge of the panels.

Analysis of the hardware on the doors of the Sherrick House supports the date of the construction of the house as being in the 1830's. Although some of the hardware in the house has been supplemented with new hardware, especially at the basement, almost all of the door hardware in the house is original. The almost intact door hardware of the house is a major feature of the historic fabric of the house.

The door hardware in the house can be classified into three groups. These three groups correspond with the relative importance of the spaces in which the hardware is found. This hierarchy follows the hierarchy seen in the woodwork and finishes used in the different spaces of the house. The most important spaces were the stair hall, the parlor and the dining room on the 1st floor. The remaining spaces on the

1st floor and all of the 2nd floor made up the second level of importance. The spaces of the attic, the sub-basement and the basement were the utilitarian spaces with the most utilitarian hardware and finishes.

The hinges on the doors of the 1st and 2nd floor were cast iron butt hinges. Cast iron butt hinges were being used in America as early as 1776[11] and were being manufactured in America by 1815.[12]

The hinges on the exterior doors, the doors from the parlor and the dining room to the stair hall, the door from the dining room to the servant room, and the door from the northwest bedroom on the 2nd floor were 4" by 4" Baldwin cast iron butt hinges (see Photo 30). These doors were the doors to the most important spaces in the house, and were also the thickest doors, with raised panels and decorative mouldings. On the face of each of these hinges was printed "BALDWIN PATENTED." The Otto Farmhouse, across Burnside Bridge Road from the Sherrick House, had similar Baldwin hinges. The hinges were attached to the door and jamb with four unpointed screws on each leaf. Unpointed screws were used in the U.S. until 1846.[13]

The remainder of the six-panel doors in the Sherrick House were hung with 3 1/2" by 3" butt hinges. These hinges were also cast iron, but were smaller than the Baldwin hinges. Cursive lettering, reading "J & C Clark's Best Brand," was stamped on each of these hinges.

Even smaller cast iron butt hinges were used on closet doors. In the servant room the hinges are 2" by 3" butt hinges, with the word "CLARK" stamped on one leaf of the hinge. These hinges were attached to the doors and jambs with three unpointed screws in each leaf. The other closet hinges were similar, but the brand name cannot be read.

The hinges on the beaded board doors in the attic, basement and sub-basement were hand wrought iron strap hinges. The strap hinges were typically 8" long at each leaf and had bean ends.

The latches on the six panel doors between rooms on the 1st and 2nd floors were 6" by 4 1/2" Carpenter box latches (see Photo 29). The patent for these box latches was obtained by James Carpenter of Willenhall, England in 1830. Each of the latches in the Sherrick House has a round brass patent seal with the words "Carpenter & Co, Patentees" inscribed on it. This patent seal was used by the company from the time of the original patent in 1830 until Carpenter's death in 1844. After his death the company was transferred to Carpenter's son-in-law, and the locks bore a seal marked "Carpenter's Patent J. Tildesley Licensee." This

THE FARMSTEAD'S ORIGINAL CONFIGURATION

Brick Farmhouse built c. 1835 (cont'd)

narrows the date of manufacture of the latches to between 1830 and 1844, which is consistent with the 1830's date ascribed to the Sherrick House.[14] A box latch similar to the Carpenter latches was installed on the basement door to the storage room. On the sub-basement door to the spring room there was a hand-wrought suffolk latch with a wood latch bar, and a wood box lock attached with hand-wrought nails.

Norfolk latches were mounted on the panel doors to the stair hall from the servant room, on the door to the closet under the main stair, and on the door to the pantry in the basement (see Photo 33). Norfolk latches were similar to the older handmade Suffolk latches, but the main parts were machine made. The period of their popularity was short, from around 1800 to 1840. The history of Norfolk latches is also consistent with an 1830's construction date for the Sherrick House. [15]

The door from the dining room to the servant stair was fitted with the only elbow latch in the house (see Photos 31 and 32). This latch has a box mechanism on the stair side of the door and a curved handle on the dining room side of the door. This latch is operated by pressing down on the lever. An elbow latch was used on this door so that a servant with no free hands, carrying a full load between the dining room and the basement kitchen, would be able to open the door easily. Elbow latches were used in America from 1750 to 1850.[16]

The small closets in the servant room, the northeast bedroom on the 2nd floor and the nursery room were locked with small keyed locks mounted on the inside face of the door. There are no identifying marks visible on these latches.

Summer Kitchen, Built C. 1835

To the east of the house was the summer kitchen. While the 1986 HABS drawings identify the building as a summer kitchen, the 1970 Historic Structure Report on the building referred to it as a "smokehouse."[17] The typology of the building indicates that it was probably built and used primarily as a summer kitchen. The summer kitchen was built at about the same time as the house. The original brick on the summer kitchen closely matches the brick on the house, and the hinges on the door are Baldwin cast iron hinges, similar to the door hinges on the doors in the house. The summer kitchen was planned and built as an essential part of the farmstead, and was probably built at about the same time as the house.

A rubble stone retaining wall running southeast from the house formed the south foundation wall of the summer kitchen.[18] The brick walls of the summer kitchen were built in a common bond pattern, with a header course every sixth course and

THE FARMSTEAD'S ORIGINAL CONFIGURATION

Summer Kitchen built c. 1835 (cont'd)

flat arches over the door and window openings. The east and west walls of the summer kitchen formed gable ends, with ventilation openings in the brickwork. The entry door was on the west elevation, and there was a brick fireplace on the east end. The south and north elevations each had one window at the ground floor level, and there was a single window above the entry at the attic level. Both of the windows were six-over-six double-hung windows. The wood floor was laid on wood sleepers set on grade inside the foundation walls.

A wood winder stair in the northwest corner of the summer kitchen led up to the attic (see Photo 35). The attic floor was framed with wood joists set in pockets in the brick walls (see Photos 37 and 38). Roof rafters were mortised into a plate at the top of the brick wall. The plates were secured from spreading by two wood ties, dovetailed into the plates at the tops of the brick walls, and spanning across the east and the west ends of the attic. The summer kitchen was roofed with wood shingles.

The Bank Barn, Built Before 1862

The bank barn was destroyed by a fire in 1985, so all that remains to determine the age of the barn are some photographs and the rubble stone foundation. The barn appears in the background of Gardner's 1862 photograph, and the shingles in the photo appear somewhat weathered. The best determination of the age of the barn that can be made from this evidence is that the barn was built some years before the Battle of Antietam.

The 45' by 90' bank barn was built on the hill above the Sherrick House. A ramp on the north side of the barn led to the upper level, and the lower level was accessible at grade from the south side. The lower level of a bank barn such as this one was typically used for sheltering livestock. The timber floor for the upper level projected over the wall on the south side, providing a sheltered area outside the south wall. The large open area of the timber framed upper level of a bank barn was typically used to store hay. The upper level of the barn was enclosed with vertical board siding. The barn was roofed with wood shingles.

THE FARMSTEAD'S ORIGINAL CONFIGURATION

Corn Crib

The corn crib is located between the Sherrick House and the barn. It can be seen in a photo of the farmstead taken in 1940 (photo ANTI {P} 07A283 {1940}). The corn crib appears somewhat weathered in the photo, but it cannot be determined how old it was at that time. The construction used typical 19th century techniques. Five rubble stone piers running across the width of the barn formed the foundation of the timber brace frame structure. The walls were vertical wood boards with open spaces between the boards for ventilation. The corn crib was roofed with wood shingles on wood rafters.

APPEARANCE OF FARMSTEAD IN 1862 (Battle of Antietam, September 17, 1862)

The appearance of the Sherrick Farmstead at the time of the Battle of Antietam is documented in a photograph taken by Alexander Gardner shortly after the battle.[19] On September 21, 1862, just four days after the battle, Gardner set up his camera across the road from the Sherrick Farmstead in the yard in front of the Otto Farmhouse, and took a photograph which included the house, the summer kitchen and other outbuildings, part of the barn, the landscape around the house and the tops of the fences on both sides of the road. This photo is the single most important documentation of the appearance of the Sherrick Farmstead at the time of the Battle of Antietam, and it provides an authoritative image for a restoration of the buildings and landscape.

Small outbuildings can be seen in the Gardner photo for which there is now little existing evidence. A wood lean-to shed was constructed against the east wall of the summer kitchen, and a stone outbuilding about the same size as the summer kitchen was to the east of the summer kitchen.

The shed on the east side of the summer kitchen was built in two halves. The north half was taller than the south half, and was made of vertical board siding and a shingle roof. The south half of the shed was more shoddily built than the north half. The walls of the south half were made of horizontal boards with gaps between them, and the roof is made of a jumble of boards running down the slope of the roof.

The stone outbuilding to the east of the summer kitchen had two gable ends, with the roof ridge running east-west, parallel to the roof of the summer kitchen. Rafter ends are visible at the eaves, and no windows or chimney can be seen in the photo. Another small wood outbuilding can be seen in the photo, in front of the southwest corner of the barn.

At the time of the Battle of Antietam the buildings at the Sherrick Farmstead appeared much as they did when they were originally constructed. No changes to the house had been made, and the house appears to have been in good condition, with no damage from the battle visible in the photo. Joseph Sherrick's estate's claim for damages incurred during and after the battle includes an $8.00 claim for "Shelling house," but it is unclear to what this item actually is referring.[20] The only damage visible on any of the buildings in Gardner's photograph is a broken window on the summer kitchen, but this damage may not have been a result of the battle.

All of the main roofs on the buildings which can be seen in the Gardner photo were made of wood, but several shingling techniques were used. The barn roof is faint in the photo, but it can be seen that the wood shingles were laid in even rows, and were more weathered than the other roofs. The roofs of both the summer kitchen and the stone outbuilding to the east of the summer kitchen were applied using a Dutch lap technique. In a Dutch lap the shingles are laid from one direction, with each shingle lapping the side of the previous one in the course as well as the shingles in the course below.[21]

APPEARANCE OF FARMSTEAD IN 1862 (CONT'D)

On the house, different planes of the roof were shingled using different techniques. The south planes of the main roof and of the porch were shingled using a Dutch lap, with shingle size and lap sizes matching closely the appearance of the roof of the summer kitchen. The east planes of the main roof and the porch were laid using unplaned wood shingles, laid in conventional rows, with thick exposed butts. The south, Dutch lapped plane of the roof appears to be more weathered than the east, conventionally lapped plane of the roof, and was probably the older roof. The top course of the roof on the west side of the house projected over the east plane, overlapping the ridge several inches and forming a projecting comb ridge. However, the roof hip between the south and the east planes of the roof was not finished at the time of the photo, and a gap can be seen between the shingles along both sides of the ridge. This unfinished hip suggests that the house was in the process of being reroofed, and the hip was to be completed after the south roof planes were reroofed with conventionally lapped shingles. Sherrick's estate claimed 2700 shingles lost to the occupying troops during the battle, suggesting that he may have had a stockpile on hand to complete the house reroofing project.[22]

Gutters from the main roof drained into a downspout at the southeast corner of the roof. The downspout ran down the northeast corner of the house, along the hip of the porch roof, and then down the outside corner of the southeast column supporting the porch. A "V" shaped wood trough can be seen to the west of where the downspout came down, projecting out from the stone wall for several feet.

At the time of the battle the farmstead was covered with trees and other vegetation. A lombardy poplar stood directly to the south of the house, a grape arbor was between the house and the summer kitchen, and oak, ailanthus, black walnut, and other trees and shrubs were growing throughout the site.[23]

Rubble stone retaining walls which crossed the site were often low and roughly built. The wall which ran east from the house to form the south foundation wall of the summer kitchen and the stone outbuilding is barely visible. There was a picket fence on the retaining wall closest to the road. The picket fence continued across the stone wall beneath the porch and then from the corner of the house south towards the road. Another picket fence ran roughly east-west above the hill from the house.

In addition to the Gardner photo, information regarding the configuration of the Sherrick Farm at the time of the Battle of Antietam can be seen on maps of the battlefield which were drawn after the battle.[24] The maps show only three buildings at the Sherrick Farmstead, all of which are visible in the Gardner photo. The buildings shown on the Ourand maps are the house, the outbuilding which can be seen in the Gardner photo in front of the barn, and the barn. The corn crib, the summer kitchen and the stone outbuilding east of the summer kitchen are not shown on the map.

The Ourand map show that the yard around the house was enclosed by a paling, or picket, fence. The exact locations of the fences are not consistent with what is seen in the Gardner photo, but the general configuration is. The two sections of the fence running east-west can be seen in the Gardner photo. A pair of post and rail fences led from

APPEARANCE OF FARMSTEAD IN 1862 (CONT'D)

Burnside Bridge Road to the west side of the house, and then continued up the hill to the barn, enclosing the path which is followed by the road today. At the barn the fence on the south side of the road enclosed the entire barn in a barnyard. The two fences continued northeast from the barn across the hilltops. Rail fences, post and rail fences, and stone fences are shown on the Ourand maps dividing the Sherrick farm into individual fields.

To the north of the barn there was an orchard approximately 300' by 300', and the Ourand map shows which of the land around the farm was plowed, grass, corn or stubble at the time of the battle. A pair of rail fences on either side of a property line run north-south, marking a road between Burnside Bridge Road and Boonsboro Pike, starting just west of the Sherrick House and roughly following what is now a paved road called Rodman Avenue.

APPEARANCE OF FARMSTEAD IN 1964 (NPS Acquisition)

By the time the NPS acquired the Sherrick farm in 1964, few major changes had taken place in the appearance of the farmstead. The condition of the farm after the NPS acquisition can be seen in photographs from the Antietam Visitor Center Library.[25]

The Farmhouse

A photo from 1958 shows the house still with a worn and patched wood roof (see Photo ANTI{P} 07A284 {1958}). The wood roof of the house was replaced by a metal roof sometime between 1958 and 1965. The roof in 1965 was a galvanized corrugated metal roof, covering both the house and the porch on the south (see Photo ANTI {P} 07A290 {1965}).

The condition of the masonry on the house was in generally good condition in 1965. There were some areas of brick around window openings on the east elevation which were in need of pointing, but otherwise the brick masonry appears to have been in good condition.

The wood porch on the south elevation of the house was sagging, particularly at the southeast corner. A worn and broken extension of the porch handrail ran north from the end of the porch at the east elevation of the house for about ten feet (see Historic Photo ANTI {P} 07A295 {1965}. The columns supporting the south porch were painted a dark color.

Two types of wood shutters were installed on the windows of the house. Most of the shutters appear to have been louvered, but there were some which were paneled. In the Gardner photo, the one shutter which is visible is louvered (the louvers can be clearly seen only in the right photo of the stereo pair), but a 1922 photo of the west elevation of the house shows only paneled shutters (see Historic Photo ANTI{P} 07A281 {1922}). By 1965, the same view of the house (see Historic Photo ANTI {P} 07A318 {1965}) shows only louvered shutters, most of which were in poor condition, with broken and missing slats, sagging frames or entire shutters missing.

A power line and meter were installed on the southeast corner of the house where electrical service entered the building. Electrical service was installed in the Sherrick House by 1958 (see Historic Photo ANTI{P} 07A285 {1958}).

Outbuildings and Site

The most important change to the farmstead in the 100 years between the end of the Civil War and the NPS purchase was the removal of the stone outbuilding which can be seen in the Gardner photo to the east of the summer kitchen. By 1940 the brick building was gone and in its place was a wood frame structure with vertical wood siding and a shed roof (see Historic Photo ANTI{P} 07A286 {1940}).

APPEARANCE OF FARMSTEAD IN 1964 (NPS Acquisition)

Outbuildings and Site

There were other outbuildings in various locations on the site in 1965, of uncertain date. Many of them would have been outside the frame of Gardner's photo, and the Ourand map of the battlefield shows only the largest of the outbuildings. Photos show that in 1965 there were small wood frame outbuildings to the east of the house, to the north of the barn, and to the west of the house (see Historic Photo ANTI {P} 07A321 {1967}).

At the time of the NPS acquisition of the Sherrick farmstead, the wood roof of the corn crib was worn and patched with sheet metal (see Historic Photo ANTI {P} 07A304 {1965}). The roof of the barn was also sheet metal, and the limewashed siding of the barn was weathered (see Historic Photo ANTI {P} 07A312 {1965}). The summer kitchen was in need of repairs, with the wood roof missing shingles, panes of glass missing from the windows, and brick in need of pointing (see Historic Photo ANTI {P} 07A303 {1965}). The attic window on the west end of the summer kitchen had a wood shutter made of vertical boards (see Historic Photo ANTI {P} 07A290 {1965}).

The rubble stone retaining walls on the site were low and roughly built. They were limewashed, but the limewash on the retaining walls was noticeably more weathered than the foundation walls of the house. There was a clear break in the retaining wall at the east end of the summer kitchen, where the wall had once ended and then was completed at a later time. A picket fence on top of the wall ran from the summer kitchen east to the stone outbuilding (see Historic Photo ANTI{P} 07A302 {1965}).

The number and size of trees and other vegetation on the site was greatly reduced in 1965 from what existed in Gardner's photo. Picket fences which were visible in Gardner's photo on the tops of the walls running east and west from the house were replaced with wire fencing on wood posts (see Historic Photo ANTI {P} 07A290 {1965}).

PHYSICAL DESCRIPTION - EXISTING CONDITIONS

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

The Site

The Sherrick House remains essentially unchanged from its original configuration. The general layout of the site and the appearance of the house are very similar to what they were when Gardner's photo was taken in 1862 (see Photo 1 and Historic Photo 1). Some differences can be seen, as discussed below.

The general topography of the land between the house and the road has been changed by the addition of the Burnside Bridge Road bypass. The bypass was built in 1970, and runs parallel to the original Burnside Bridge Road in front of the Sherrick House. The original Burnside Bridge Road is now used only for access to parts of the Antietam National Battlefield Site, and it terminates at a parking area on the hill above Burnside Bridge. As a result of the construction of the bypass in front of the house, there is now a high berm for the road close to the house. The water now runs out from the spring room into a metal culvert and a catch basin near the road. Water from the catch basin runs under the road and into the creek on the other side of the road.

The two retaining walls to the east of the house were lower and rougher in 1862 and in 1965 than they are today. Major changes in the walls took place in 1974 and 1980 when the walls to the east of the house were rebuilt. In 1974 the upper retaining wall, between the house and the summer kitchen, was completely dismantled and rebuilt. The wall which was dismantled was rough and uneven, appears to have been laid dry, and had a faded limewash finish.[26] When rebuilt, the wall was square and even, with a flat top, the joints were pointed full with mortar, and the entire wall was painted a bright white (see Photos ANTI{P} 07C01 {1974} through ANTI{P} 07C15 {1974}). The portion of the wall which continued beyond the summer kitchen and which in 1862 served as the foundation for the stone outbuilding next to the summer kitchen was dismantled and was not rebuilt. All that remains of that part of the wall is some loose rubble.

In 1980 the wall below the summer kitchen which connected to the rubble stone foundation walls of the south porch was also dismantled and rebuilt. As with the upper wall, the lower wall was rebuilt more evenly than it had been before (see Historic Photo ANTI{P} 07C21 {1980}).

The Gardner photo shows picket fences along the top of the lower retaining wall, running south from the outbuilding east of the summer kitchen to the lower retaining wall, from the southwest corner of the house south towards the road, and along the driveway between the house and the barn. These fences are also shown on the Ourand maps. None of these picket fences exists today, although there are wire fences on wooden posts, some of which may be in the same locations. A set

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

The Site (cont'd)

of wood steps with three risers which went up the wall just east of the south porch foundation is also no longer there.

The post and rail fence which appears in the foreground of Gardner's 1862 photo is now missing. The two parallel fences delineated the two sides of Burnside Bridge Road. This fence appears to be similar to fences along roads in other areas near the battlefield, as seen in a number of photos which Gardner took in other parts of the battlefield.[27] The Ourand map shows that this type of post and rail fence was the typical enclosure for roads in the area.

The Sherrick barn is now gone. During the night of June 18-19, 1985 the barn burned, and only the stone foundation survives (see photos 39 and 40). All of the burned timbers from the barn have been removed from the foundation. The foundation walls which are now exposed to the weather are deteriorating. Mortar is washing out of the joints at the top of the walls, and stones are cracking.

The small outbuilding visible in the Gardner photo at the southwest corner of the barn is now gone. This outbuilding is missing in photos from as early as 1940 (see Historic Photo ANTI{P} 07A283 {1940}). The stone outbuilding next to the summer kitchen and the leanto against the summer kitchen, both shown in Gardner's photo, are now gone, as well.

In Gardner's photo, more trees and other vegetation surrounded the farmstead. All of the trees, shrubs and vines which can be seen in the 1862 photo are gone. The entire farmstead is now covered with closely-cropped grass, with the exception of a few trees to the west of the house and some trees at the top of the hill near the barn. Tree stumps in the yard west of the house may correspond with trees which can be seen in the historic photographs. The species and location of these remains need to be confirmed.

The Ourand map reveals other features of the Sherrick farm which have changed since 1862. The orchard which is shown on the map to the north of the house is entirely gone. The road which ran from the Sherrick farmstead to Boonsboro Pike with a rail fence on both sides is now Rodman Avenue, a paved park road. A concrete overpass now carries Rodman Avenue over the Burnside Bridge Road bypass. A concrete walk in good condition leads from the west entry to the west fenceline in front of the house.

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

House Exterior

Minor changes have taken place to the exterior of the Sherrick House. The most drastic changes which have taken place to the appearance of the house are the modifications to the entry porch. At some time between the 1964 NPS acquisition of the house and 1980 the low hip roof of the porch was rebuilt with an almost flat roof, and a balustrade was built on top (see Photos 3, 4 and 5). There is no historic documentation for a flat roof or a balustrade on top of the entry porch. In fact, photos of the house before the NPS acquisition show it clearly to have a shallow hipped roof and not to have a balustrade.

The southwest corner of the porch roof is badly rotted (see Photos 4 and 5). The penetration of the balustrade posts through the roof allowed water penetration which started the deterioration. Wood mouldings and the framing of the porch roof have deteriorated, the rail across the front of the porch roof is missing, and the base of the rail post at the southwest corner of the porch roof has dropped into the deteriorated framing. The counter flashing at the brick has pulled out from the wall, opening the east end of the porch roof to water infiltration where it connects with the brick wall.

Deterioration of the wood on the porch has begun in other locations, as well. The porch deck has decayed under the southwest column, causing the anchor supporting the column to settle into the deck. The bottom steps are loose from the porch and is decaying, and the skirt board is decaying along its bottom edge.

In addition to the entry porch, other wood construction on the exterior of the house is deteriorating or has been replaced. Almost all the wood window sills on the 1st, 2nd and attic floors have been replaced (see Photo 7). The bottom rail at the south porch has broken and split. Chewing rodents, probably groundhogs, have caused damage at the east entry door at the 1st floor see Photos 9 and 19), the sub-basement door, and the east pier of the south porch.

The two small window openings to the basement storage room are set in small areaways in the foundation of the house on the east and west elevations. Rocks and dirt have fallen into the areaways, filling them and partially covering the window openings. The wood basement window bars have been chewed by rodents (see Photo 10).

The metal roof which was on the house in 1965 was replaced with a new western red shingle roof by 1978.[28] The old wood roof on the summer kitchen was replaced with western red cedar shingles in 1970. The new wood roofs do not follow, however, the historic lap patterns which can be seen in the 1862 Gardner photo. In the Gardner photo, the roof of the summer kitchen, the outbuilding to the east of the summer kitchen and the south planes of the roofs of the house and the porch were laid in Dutch lap. All the roofs are now laid with a conventional lap

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

House Exterior (cont'd)

in western red cedar. The original roofs were probably oak shingles rather than the existing western red cedar shingles. The roofs were installed recently, and are in very good condition. There is no indication of leakage from the roof.

The electrical service still enters the building at the south corner of the west elevation (see Photo 2). A new meter was installed in the same location as the old one, sometime before 1980. Fasteners which anchor the electric line and the meter to the wall have caused damage to the masonry. There is a large area of spalled brick where the line from the pole is anchored to the wall. The fasteners for the line going down the wall to the meter are drilled into the brick, not into the joints. There is a hole all the way through the brick wall, about 2" by 2", where the electrical line enters the building.

The foundation stone on the west, north and east elevations has been pointed with a smooth textured bluish gray mortar. This mortar is a bad match with the other stone mortar found on the house. On the south elevation of the house and on the east elevation near the entry door to the basement, the stone has been painted a glossy white (see Photos 9, 11 and 12). Other areas of the foundation are covered with a faded limewash. Adjacent to the wood stairs going down to the sub-basement, the mortar is washed out of the stone masonry for six inches above the steps. Otherwise, the pointing in the foundation stone is sound.

The brick masonry on the exterior of the house is generally in good condition. Small areas of brick which need pointing are the joints around individual loose bricks and the bricks directly beneath the sill of the window on the north elevation. The brick has been pointed in small areas on all four elevations, using a yellowish brown mortar which is a poor match with the original mortar on the house. Yellowish gray mortar was used to point brick under the window sills and in miscellaneous patches and the tops of the chimneys. The typical existing mortar is a brownish gray color.

There are miscellaneous holes in the masonry. On the south elevation to the east of the 1st floor door there is a hole all the way through the brick which was probably used for an electrical line at one time. Between the sub-basement door and the center basement window on the south elevation there is a stone missing, approximately 6" by 8", where a drainage line from the kitchen sink ran from the basement kitchen (the line can be seen projecting from the house in photo ANTI{P} 07A284 {1958}).

On the north elevation there are many small areas where chips and spalls in the brick have been repaired with mortar patches. The foundation at the north end of the house has groundhog holes burrowed all the way through to the storage room in the basement.

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

House Exterior (cont'd)

Under the south porch roof, where the walls are protected from the weather, the brick was painted and pencilled. The entire wall was painted red, and then thin white joints were painted onto the wall. The pencilled joints maintain a running bond pattern, even where the actual masonry is laid with a header course. Evidence of paint on the brick can be seen on all four elevations, although it has weathered away in all but the most protected locations. It is not known when this penciling was done on the house.

There is miscellaneous staining on the exterior masonry in several locations. On the west elevation there are white stains on both sides of the entry porch (see Photos 3, 5 and 6). On the east and south elevations there is efflorescence on the walls below the porch roof at the 1st floor.

The exterior wood stairs from the basement to the door at the sub-basement were rebuilt in 1980 (see Photos ANTI {P} 07C22 {1980}, ANTI {P} 07C24 {1980}, and ANTI {P} 07C25 {1980}). At the same time the landing outside the basement door and a landing between the east entry to the stair hall and the south porch were poured in concrete (see Historic Photo ANTI {P} 07C23 {1980}). Concrete steps were built between the 1st floor and the basement levels through the rubble stone retaining walls, at an unknown date before 1980. A concrete walk was built to the west entry and two concrete steps were built to the east entry, also at unknown dates.

Wood windows are generally in good condition throughout the house (see Photo 7). The iron hinges which held the hinges to the window frames are still mounted to the window frames, although no shutters are now on the house. A large number of both paneled and louvered shutters are stored in the attic, and they have the other half of the hinges mounted on them.

House Interior

The interior of the house has seen few modifications since it was constructed. The most important change to the house was the introduction of electrical service, sometime before 1958. There are now electrical outlets and light fixtures throughout the house (see electrical report). A plank of the wood flooring at the north end of the southwest room of the 2nd floor has been removed to run wiring, and it has not been replaced. Wiring runs vertically through a chase in the closet in the northwest corner of the servant room and the nursery. Other floor boards were removed and renailed to provide access to the light fixtures in the ceilings.

The only plumbing equipment introduced to the house was a hand pump and later an electric pump to move water from the sub-basement spring to the basement

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

House Interior (cont'd)

kitchen (see Photo 14). The hand pump in the kitchen is shown in the HABS drawings (Longitudinal Section A-A', on sheet 7). The electric pump in the sub-basement is badly corroded and is non-functional. The pumps carried water to a sink in the kitchen, south of the fireplace. A drain line from the sink ran out through a hole in the south wall, across the stone wall supporting the piers under the south porch, and drained into the ditch which ran from the spring room to the creek. The sink and the drain line have been removed, but the hole in the basement wall through which the drain line ran still remains. An additional pump on the exterior of the house at the fence line just north of the house raised water from the spring for use in watering livestock.

The Sherrick House is warmed in the winter by unit electric resistance heaters (see mechanical report. A unit heater can be seen in Photo 16). The attic floor has been insulated with 2 1/2" thick rigid insulation set on the floor, and loose insulation laid on top of the plaster over the stair hall. Fixed interior storm windows have been added to the windows at the basement, 1st, and 2nd floors (see Photos 24 and 26). The barred basement and sub-basement window openings are covered with plywood and batt insulation during the fall and winter, and with a screen during the spring and summer (see Photo 12).

The wood framing in the basement floor is severely deteriorated, as a result of the high humidity in the spring room (see structural report). The oak joists are severely decayed and have cracks across the grain. At the west end the joists have rotted out completely, and the ends of the joists have no bearing remaining on the west foundation wall (see Photo 15). A large stack of storm sash is stored in the pantry, directly over the area where the deterioration in the floor is the most severe, and a stack of bundles of western red cedar shingles is stored nearby, in the northwest corner of the kitchen. These loads are contributing to a sag in the basement floor (see Photo 16). From the sub-basement it can be seen that the 1" thick tongue-and-groove wood flooring of the basement floor is also decaying. The sheet linoleum which covers the basement floor prevents inspection of the flooring from above. The window opening to the sub-basement on the west end of the south elevation has been covered with insulation and plywood, preventing any circulation of air into the spring room.

The 1st floor framing can be seen from the basement, and it, too, is deteriorating, although not as severely as the basement floor. The 1st floor framing above the storage area at the north of the basement is infested with powder post beetles (see Photo 18). The beetles have already caused damage to many of the oak floor joists. The storage room is very humid, and some mold is visible on the surface of the wood, indicating that rot may be developing there as well.

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

House Interior (cont'd)

The floor framing at the 2nd floor and attic is not visible without removing floor or ceiling materials, but there does not appear to be any sagging or soft areas which would indicate deteriorated framing. The roof framing appears to be in good condition. Collar ties and rafters at the west end of the attic are being severely strained by the weight of a tall stack of window shutters which have been stored on top of the collar ties.

The original plaster on the walls is in good condition, with some exceptions. In the basement kitchen the plaster and most of the lath on the ceilings is entirely missing (see Photos 16 and 17). The plaster walls in the basement pantry have been covered with gypsum board, much of which has deteriorated from moisture. In areas where the gypsum board has deteriorated, the plaster below the gypsum board has deteriorated as well.

The plaster on the basement walls in the kitchen is also deteriorating from moisture (see Photo 17). Deteriorating plaster may have been the reason the vertical beaded board wood wainscot was added to the kitchen walls.

Plaster above the mantel in the dining room is badly cracked and there are areas where the plaster has fallen from the lath (see Photo 24). Throughout the house there are minor cracks in the plaster and fallen sections of plaster in the ceilings and the walls. When electrical service was brought to the house, holes were cut in the plaster and lath in the walls and ceilings for outlets, switches and fixtures (see Appendix C, Inventory of Significant Materials for a room-by-room summary of plaster conditions).

The original wood trim is in very good condition throughout the house. All of the original bases, chair rails, door casings and window casings are in good condition. There are typically very few paint layers on the wood trim. The only damage to the wood trim is separation from plaster in some locations and bases lifting off the floor due to shrinkage of the wood. The paint on the interior wood sills of the windows has deteriorated, due to exposure to direct sunshine and occasional rainwater.

The five original fireplace mantels on the 1st and 2nd floor are also in very good condition (see Photos 24 through 27). There are typically very few layers of paint on the mantels. The finish on the firebox surround inside the wood mantel in the dining room is the original marbleized plaster. Over half of the marbleizing on the fireplace is still intact. Above the fireplaces and in chimneys where there are no fireplaces there are metal thimbles where stoves were once connected. No stoves are in the house today.

The fireplaces have brick or mortar hearths, brick chimneys and plastered brick fireboxes and surrounds. The brick and plaster in the fireplaces and chimneys have

FARMSTEAD'S EXISTING APPEARANCE AND CONDITION

House Interior (cont'd)

deteriorated from water which has come down the chimney or infiltrated from the ceiling above, and from nails which have been driven into the face of the plaster to hold wood covers over the fireplace openings.

The original 1" thick tongue-and-groove wood floors are in good condition throughout the 1st floor, 2nd floor and attic. The stain and paint on the floors to simulate wood grain at the perimeter of the stair hall, parlor, dining room and servant room on the 1st floor, and on the main stairs, stair hall, and dressing room of the 2nd floor is still visible (see Photos 19 through 28). The floors at the centers of these rooms were covered with rugs, and a runner covered the stair. The areas which were covered with rugs are bare, unfinished wood. There is gritty dirt on the floors throughout the house, some of it from deteriorating plaster. The grit on the floors is very abrasive and is causing damage to the wood floors.

The main stair in the center hall is in very good condition (see Photos 19 through 21). All of the original treads, risers, balusters, handrails and mouldings are intact. The handrail is wobbly between the newel post at the 1st floor and the landing, but it is otherwise secure.

The servant stair is also mostly in good condition (see Photos 17, 22 and 23). The exception is the bottom three steps going up from the basement. These steps have come loose and are standing free from the rest of the run of the stairs. Currently the only exterior door which is not barred closed is at the basement, so the servant stairs from the basement to the 1st floor are used for access to the rest of the house as well as emergency egress. These steps are very hazardous.

The windows in the house are in very good condition. Many of the window sash and the exterior wood sills have been replaced recently. All of the windows in the house have interior storm sash, held in place with wood blocks nailed to the jambs. None of the windows has shutters on them, although the exterior hardware is still existing. There are both louvered and paneled shutters stored in the attic.

All of the interior doors are in remarkably good condition, complete with the original hinges and latches and most of the walnut graining (see Photos 28 through 33). Some of the graining is deteriorating on some of the doors. Deterioration of the graining is particularly bad where the doors are exposed to direct sunlight, such as the door to the stairs going up from the servants room. On doors where the graining is deteriorating, the finish is dry, cracked, and flaking off. The sides of the doors facing the servant stair are painted, and the sides of the doors on the insides of the closets are bare unfinished wood.

The three exterior doors on the 1st floor have had major repairs and have been painted. At least part of the rails and stiles have been replaced. The quality of the

House Interior (cont'd)

workmanship in the repairs is inferior to the workmanship on the original doors. This can be seen particularly on the face planing of the rails and stiles of the doors, where there are chips and gouges from the planes, and at the pegs, which are not smoothly cut. The moulding profiles have all been reproduced accurately, however, and all of the original hardware has been retained. The wood at the bottom of the exterior door at the east end of the stair hall has been chewed by a groundhog, and a board has been nailed to the bottom rail to cover the hole (see Photos 9 and 19).

Most of the original door hardware is in good condition. Although there is some wear and deterioration, most of the hardware is operable. The box lock on the basement door to the exterior is corroded and does not operate. The door has a modern Corbin latch, keyed with a NPS cylinder. The door to the storage room has a box lock, a Norfolk latch and strap hinges, all of which are corroded. The door has been rehung on Clark butt hinges. The door to the closet under the basement stair has strap hinges and HL hinges, all of which are also corroded. The door is secured by a wood turn block in good condition.

On the 1st and 2nd floors most of the locks are in good, operable condition, although the doors do not all align properly with the jambs. The latches have peeling paint on their cases, the brass seals have worn smooth from rubbing, most of the hollow metal doorknobs have dents in them, and there is general light corrosion of metal parts. The iron Baldwin and Clark hinges have corroded, but the paint is largely intact and they operate smoothly.

Summer Kitchen

A lot of work has been done to the summer kitchen since the 1969 Historic Structure Report was completed (see Photos 36 through 38). Masonry has been repaired and pointed, the fireplace has been repaired, and the roof, wood flooring on the 1st floor, the south window, the south window frame, the entry door and the entry door hardware have all been replaced. About half of the original plaster on the walls is gone, and a new scratch coat has been applied where it is missing. The summer kitchen was used to store black powder for the cannon demonstrations at the Park Visitor Center, but it has since been removed.

On the north elevation there is some brick spalling and deterioration of the window. Moisture is seeping through the wall, causing spalling of brick at the base of the wall. The exterior is otherwise in good condition.

On the interior the condition of the 1st floor of the summer kitchen is good, due largely to the recent work which has taken place there. The joists for the attic floor are charred and the nails which once held the lath for the plaster ceiling are

Summer Kitchen (cont'd)

corroded. The board and batten door under the stair has many flight holes from insect infestation. Birds and insects are nesting in the chimney and other places in the summer kitchen. Much of the wood has flight holes, indicating that there may be insect infestation.

The stair to the summer kitchen attic is missing a large section of steps. The attic floor is covered with dirt, cloth, plywood, remnants of the stair, bricks and wood debris. The wood ties which are dovetailed into the plates are lifting out of the dovetails. The condition of the roof framing is good, although insect flight holes indicate that there may be active insect infestation.

Barn

All that remains of the bank barn is the rubble stone foundation (see Photos 39 and 40). The timber frame barn burned during the night of June 18-19, 1985. The only wood which remains in the barn is a charred wood ledger on the west wall.

The existing stone foundation walls are exposed to the weather and are beginning to deteriorate. Mortar is washing out of the wall and stones are cracking. Plants are growing in the walls and in the floor of the barn.

FARMHOUSE, EXISTING STRUCTURAL SYSTEM EVALUATION

Introduction

A visual non-destructive structural survey was conducted at the Sherrick House on February 2, 1994, to document the existing structural system, to evaluate the structural integrity and stability of the present condition of the house, and to provide brief recommendations for the repair of structurally inadequate areas. Sketches and framing plans were developed based on visual observations. Calculations were performed to determine the allowable floor and roof load capacities.

This study is based on a limited visual observations of the existing floors and ceilings. Destructive testing was not performed, and spot openings were not made to observe structural elements concealed in walls and floors. Due to the limited accessibility of the existing structure, there may be existing conditions which were not discovered during the investigation. The structural analysis was based on visibly accessible structural elements judged to represent typical framing condition. The lumber sizes indicated in this report are the actual approximate sizes measured at accessible spot locations.

Project Description

The Sherrick House was built into the side of a steeply sloping hillside. The house consists of a sub-basement with a spring, a basement, a 1st floor, a 2nd floor, and an attic. The sub-basement and basement levels are enclosed with rubble stone masonry, the 1st and 2nd floors are enclosed with brick masonry, and the attic is enclosed on the north by a brick gable and on the other three sides by a wood roof on wood rafters.

At most locations, the exterior foundation stone wall is 24" thick. On the north and the west the finish grade covers almost all of the foundation stone, and is almost to the bottom of the 1st floor brick. On the west elevation, the grade drops to the basement level at a retaining wall, allowing access to the basement door, and on the south the grade drops further, exposing the sub-basement level. The typical exterior walls for the 1st and 2nd floors are built out of brick and are approximately 12" thick.

The floor joists are rough-sawn timbers and the beams are hand hewn. One tree trunk post is located at the storage room at the basement level. The wood members in the house are white oak. No indication of lumber grade or type was observed on the existing wood members during the field survey. For analysis purposes, reasonable and somewhat conservative allowable stress values for oak species were assumed (see calculation sheet 1).

An existing exterior wood stair on the south elevation leads down from the basement level to the sub-basement level (see SK1). The only entry to the sub-

Project Description (cont'd)

basement room spring room is a door off the landing at the bottom of these stairs. The spring room floor is made of stone pavers loosely set on the dirt floor. A spring runs from the bedrock at the north of the sub-basement into the spring room, and flows out under the stone wall to a pool at the bottom of the exterior stairs to the sub-basement.

A masonry wall running east-west for the entire depth of the house forms the north wall of the sub-basement, the wall between the kitchen and the storage room at the basement level, and the wall at the south of the stair hall at the 1st and 2nd floors. At the sub-basement and basement levels the masonry wall is 24" rubble stone, and at the 1st and 2nd floors the wall is 12" brick. The interior masonry wall carries floor loads from the basement, 1st floor, 2nd floor and attic.

At the basement level, the pantry floor and half of the kitchen floor are located above the spring room (see SK2). The east half of the kitchen is over a crawl space. The storage room at the north of the basement has a dirt floor with stone flooring. The exterior basement stone walls at the north, east, and west of the storage room are built on exposed bedrock outcroppings.

The pantry and kitchen floors at the basement level are framed with 3" x 7 1/4" joists spaced approximately 24" on center, spanning east-west. These joists span between the west exterior wall and the east wall of the spring room. Similarly sized joists span over a crawl space between the east wall of the spring room to the east exterior wall. The flooring at the basement pantry and kitchen is 3/4" thick, 2 1/2" wide tongue-and-groove pine flooring, covered with thin sheet linoleum.

An 8" x 8" beam spans north-south at the 1st floor level, below the wall between the dining room and servants room (see SK3). The beam spans from the south exterior stone wall to the interior stone wall. The 1st floor joists at the dining and servant room are 2" x 8 1/2", spaced 19" on center. The floor joists span from the east and west exterior masonry walls to the 8" x 8" beam. The connections between the joists and the beam are pegged mortise and tenon joints (see SK7).

A tree trunk post 6 1/2" in diameter is located near the center of the basement storage room. The post supports at mid-span a north-south 10 1/4" x 10 1/4" beam which spans from the interior masonry wall to the north exterior wall below the 1st floor level. 8 3/4" x 8 3/4" beams beneath the north wall of the corridor span from the east and west exterior walls to the top of the 10 1/4" x 10 1/4" beam.

The 1st floor joists at the corridor are 2" x 8 1/2", at 24" on center, spanning north-south from the interior masonry wall to the 8 3/4" x 8 3/4" beams spanning east-west. The corridor joists are mortised into the 8 3/4" x 8 3/4" beams. The floor joists at the 1st floor bedroom and parlor span from the east and west exterior walls

FARMHOUSE, EXISTING STRUCTURAL SYSTEM EVALUATION

Project Description (cont'd)

to bear on the 10 1/4" x 10 3/4" beam. They are 2" to 3" wide x 8 1/2" deep and are 22" on center. The flooring for the entire 1st floor is 1 1/2" thick tongue-and-groove random width decking.

Because the 2nd floor framing is mostly concealed, it is assumed that it is similar to the framing of the 1st floor. A board which has been removed from the floor of the nursery allows limited inspection of the 2nd floor framing, confirming that the size, spacing and configuration of the floor joists is similar to the 1st floor below in that location. A north-south beam is visible through the opening, similar to the beam at the 1st floor.

The attic floor framing is entirely concealed. The attic floor framing is assumed to be similar to that of the 1st and 2nd floors (see SK5).

A roofed porch covers the entire length of the house on the south elevation, and continues for 16' on the east elevation of the house. The finish floor level of the porch is slightly below the elevation of the 1st floor level and slopes away from the house (see SK3). The existing porch floor and roof framing members are concealed and are not accessible for survey. The porch roof is roofed with wood shingles.

The porch at the west entry has a flat roof and wood railing (see SK3 and SK4). The finish floor elevation of the entry porch is approximately 1'-6" above grade, with three wood steps leading down. The entry porch floor and roof framing are not accessible for survey.

The roof is gabled at the north side and hipped on the south side. The roof is constructed of 2 1/2" wide rafters which taper in depth from 5" at the bottom to 3" at the top. The rafters are spaced 36" on center, with a 2" x 5" collar tie at each rafter (see SK6). The collar tie is approximately 7' above the attic floor. The lath above the roof rafters are 1" x 2 1/4", spaced around 6" on center. The wood shingles are nailed to the lath (see SK8). The two hip beams at the south end of the roof are 3" wide and 2 1/4" deep.

Findings

Structural Deterioration

The following areas of structural deterioration, some of which can potentially lead to structural failure, were observed during the site visit. The information obtained from the site visit was used to provide framing plans, sections, and details. Defects in the structure were surveyed, and calculations and analysis were performed based on the collected information.

FARMHOUSE, EXISTING STRUCTURAL SYSTEM EVALUATION

Findings (cont'd)

The basement framing above the spring room (kitchen and pantry floor) has severely deteriorated due to a combination of moisture and insect damage (see SK2). Several joists have completely deteriorated at the west end, so that there is no bearing on the masonry wall (see photo 15). The floor joists are brittle, with signs of rotting and cracking at several locations. Basement sub-flooring has also deteriorated due to moisture and insect damage. The floor in the basement pantry has sagged as a result of this deterioration (see photo 16).

First floor joists and beams above the basement storage room have deteriorated due to insect infestation. These members have small flight holes in them, probably from powder post beetles (see photo 18).

The bottom three steps of the interior stair leading from the basement to the 1st floor are loose (see photo 17). The three steps are built together as a block, and the entire block is loose from the rest of the run of the stairs.

Construction Defects

The following defects in the construction of the Sherrick House may eventually lead to structural problems.

The 6 1/2" diameter tree trunk post located at the basement storage room is resting directly on the dirt floor. This is an inadequate support for the post. No apparent settlement of the post has occurred, however.

The basement and 1st floor joists and beams bearing on exterior foundation walls are exposed to moisture that could damage framing members. No apparent deterioration of these members has occurred.

Structural Code Analysis

The existing farmhouse was analyzed for code compliance using the structural requirements of the 1993 BOCA code. For the purpose of this analysis reasonable design stress values were obtained, based on the 1991 National Forest Product Associations design value tables. The following structural elements do not comply with code requirements.

The live load capacity required for a single family residence is 40 psf (pounds per square foot), except in sleeping rooms where it is 30 psf and in attics where it is 20 psf (BOCA Section 1606). The following structural elements of the floor system do not comply with this requirement:

FARMHOUSE, EXISTING STRUCTURAL SYSTEM EVALUATION

Structural Code Analysis (cont'd)

- Basement floor joists at the pantry and kitchen have a live load capacity of 12 psf (see J1 on calculation sheets 2 and 3).

- 1st floor joists at the dining room and the servant room have a live load capacity of approximately 38 psf (see J3 and J4 on calculation sheets 5 and 6). The main beam between the dining and the servant room has a live load capacity of approximately 16 psf (see B1 on calculation sheets 5 and 7).

- The 1st floor joist capacity in the parlor is approximately 33 psf (see J6 on calculation sheets 12 and 13).

- The typical mortise and tenon joint between the floor joists and the beams is shown in detail 1/SK7. The tenons at these joints are overstressed 2.1 times in lateral shear capacity (see calculation sheet 21).

At the 1st floor corridor, the 10 1/4" x 10 3/4" beam supports additional point loads from floors above. This beam is overstressed by 2 times in lateral shear capacity (see B2 on calculation sheet 8).

The roof rafters and the hip beams are undersized and do not have any live load carrying capacity (see calculation sheets 15 through 18).

Recommendations

Structural Deterioration

The most severe deterioration in the structure of the Sherrick House is at the basement floor. The rot and insect damage to the basement floor joists and sheathing below the kitchen and pantry have left the floor with little structural integrity. The deterioration can be repaired either by reinforcing the existing floor system and replacing only the deteriorated wood, or by complete replacement of the floor system.

To save the maximum amount of original material, remove the deteriorated sections of joists and flooring, extend the shortened joists to the bearing wall by scabbing extensions to the members, and install additional joists between the existing joists to provide additional support to the floor. Replace deteriorated flooring with new flooring to match.

Complete replacement of the deteriorated flooring would be the simplest and most sound method of repair, but it would involve removal of original building material. Document the original floor joists and flooring before removal if the floor is to be

FARMHOUSE, EXISTING STRUCTURAL SYSTEM EVALUATION

Recommendations (cont'd)

replaced. The spacing of the floor joists must be closer to achieve the required live load capacity.

Whether repairing or replacing the floor, remove the sag from the floor to restore it to its original level. Eliminate the high humidity which caused the deterioration with adequate ventilation, and treat the wood members with preservative chemicals to stop rot and infestation.

The deterioration of the 1st floor joists and beams above the storage room is not severe enough to warrant replacement of members, but the insect infestation must be stopped. Treat all the wood in the storage room with an insecticide such as Bora-Care to eliminate the infestation.

Secure the loose steps at the bottom of the interior stair between the basement and 1st floor. Rebuild the steps using as much of the original material as possible and reanchor them in place.

The post supporting the 1st floor beam above the storage room does not have an adequate foundation, although it does not appear to have settled. Monitor the post and the beam and wall above for settlement. Provide a new footing for the post if settlement begins to occur.

Code Deficiency Recommendations

The Structural Code Analysis reveals elements of the Sherrick House structural system which do not comply with the requirements of the current building code. While the code requirements are not enforceable, the analysis is useful for highlighting the building components which may be prone to structural failure.

While some elements have been shown to be severely deficient, other elements are marginal in their non-compliance. The elements which are marginally deficient do not require any work at this time. However, the elements which are severely deficient may need to be reinforced to maintain the integrity of the house and to prevent future failure. Wherever possible, the strengthening of the structural system should take place without removing or damaging existing historic fabric.

Before reinforcing the structural system, additional analysis should take place, including lumber species identification and grading by a professional lumber grader, and stress testing of sample members. This additional analysis would provide a more accurate estimate of the strength of deficient members.

FARMHOUSE, EXISTING STRUCTURAL SYSTEM EVALUATION

Recommendations (cont'd)

According to the analysis, the roof framing is severely deficient and is in danger of collapse. However, the roof has endured for over 150 years, and it does not appear to be deteriorating or straining. There is no deterioration at the joints, cracks in the rafters or insect damage. Because the roof is original, any work to remedy deficiencies should be done carefully and only if it is necessary. Monitor the roof and do regular surveys of the roof structure for damage, strain, or deterioration. Monitoring is especially important during and after times of extreme snow loads on the house. If deterioration is observed, then it may be necessary to reinforce the roof.

If monitoring indicates that the roof system is in danger of failing, reinforce the roof rafters by introducing intermediate rafters between the existing rafters to reduce the tributary area on each rafter. Install the intermediate rafters so that they are easily identifiable as new material, and so that the installation does not damage, obscure, or remove existing original material.

The 1st floor joist live load capacity at the dining room and the servant room is 38 psf, which is only 2 psf below code requirement. This is a marginal deficiency and does not require correction. However, the 8" x 8" beam which supports these joists has a capacity of only 16 psf, which is 24 psf below the required capacity. This is original material, and there is no indication of impending failure in this area. Reinforcing this beam would be difficult due to the low ceiling in the basement and the configuration of the beam and joist connections. Monitor this area for excessive deflection or deterioration. Excessive deterioration would be apparent from cracks in the plaster of the wall above.

The live load capacity of the floor in the parlor is only 7 psf below code requirement. This is a marginal deficiency, and does not need to be corrected.

The simplest solution to the deficient live load capacities of the floor system is to control the live loads which are imposed on the floor. Do not store heavy materials on any of the floors and limit the number of visitors in a tour group to twenty (see calculation sheet 22).

FARMHOUSE, EXISTING ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS

The Sherrick House is served by an overhead electrical service, rated 120/208 volt, single phase, three-wire, 200 ampere, with a meter (see electric plans). The distribution system consists of a main panel in the basement, sized 200 amperes, 1 phase - 3 watt, with main breaker. The panel contains ten 2-pole 20 ampere breakers and two 3-pole 30 ampere breakers. These breakers serve the electric unit heaters and the subfeed panel on the 1st floor.

The subfeed panel contains six 1-pole 20 ampere breakers which serve lights and receptacles. The subfeed panel does not have adequate clearances to meet code requirements. Neither panel has a directory or name plate, so it is not known if the existing panels are rated for the service which they are handling. The condition of the panels is satisfactory.

The existing service and 200 ampere panel were sized and installed to accommodate the load of the electric unit heaters. The system is marginally adequate for the current use, although there is no capacity for expansion.

Each room has a switched ceiling lights. The light fixtures are incandescent surface-mounted residential type units.

Each room contains one or two duplex receptacles. The duplex receptacles are flush-mounted in the walls or surface-mounted, with raceway extensions on the face of the wall. Each room contains a 115 volt, 20 ampere receptacle for the electric unit heaters.

The branch circuit wiring is installed in spaces between floor joists and walls studs. The wiring is type NM cable and is in satisfactory condition.

There is no evidence of telephone service or smoke detectors ever being installed in the house.

Electrical Requirements for Use as a Single Family House

The Sherrick House does not comply with many of the requirements for residential use as required by the National Electric Code, Article 210-52. While Federal Government facilities are not required to comply with this code, this analysis provides a reasonable comparison for the current industry standards which are used for residential use. The following changes would have to occur to bring the house in compliance with the code, but these changes are not recommended for the Sherrick House, as they constitute a major intrusion in the historic fabric of the house.

FARMHOUSE, EXISTING ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS

Electrical Requirements for Use as a Single Family House (cont'd)

The existing 200A single phase, three-wire electrical service would need to be replaced with a new incoming service from the existing pole, sized to accommodate new residential electrical loads. The new loads would include a new heating system, domestic hot water and a kitchen. The two existing panelboards with all associated branch circuit wiring and devices would need to be removed completely, and replaced with new panels which can accommodate the new loads.

A new branch circuit wiring system would need to be installed throughout the house in accordance with Article 210 of the National Electrical Code. Receptacles would be required every 12 feet. Ground fault interruptable receptacles would need to be installed in the bathroom, the kitchen and the exterior of main entrance. One of the receptacles in each bedroom and the living room would need to be controlled by a switch.

New light fixtures controlled by switches would need to be provided in the kitchen, stair hall, dining room, bathroom, basement, attic and on the exterior of each exterior door. The center hall lights would need to be controlled by three-way switches at each level.

Appliance circuits would need to be provided in the kitchen and dining room in accordance with Article 210 of the NEC. Connections for appliances such as the range and hot water heater would need to be provided.

Smoke detectors would be required in the stair hall at each level, connected together to sound simultaneously upon activation of any single detector.

Electrical Requirements for Use as an Exhibit House

Minimal updating of the electrical system is required to make the system safe for use as an exhibit house. The existing receptacles and ceiling light fixtures are obviously non-original fabric, but they are best left in place. Electrical service and lighting of some kind would be required in the house, so if the existing fixtures, switches and receptacles are removed, they would be replaced with new systems which would require additional damage to the plaster walls, plaster ceilings and wood mouldings. It is best to keep the existing lighting and power systems, recognizing that they are not original historic fabric, than to subject the house to additional damage by running new electrical lines and cutting new holes for light fixtures and boxes for power and switches. The existing system is relatively unobtrusive.

FARMHOUSE, EXISTING ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS

Electrical Requirements for Use as an Exhibit House

It may be desirable in the future to replace the existing light fixtures with new fixtures which replicate appropriate historic fixtures. Careful historic research needs to be conducted before choosing the reproduction fixtures.

Replace the overhead electric lines to the house with an underground line. Replace the meter on the southwest corner of the house with a new meter which is either inside the house in the basement or on the north elevation, not visible from the road or from the front of the house. Removing the overhead lines and the meter will greatly improve the historic appearance of the farmstead.

Replace the electrical panels in the basement and the 1st floor with new panels. Install new panels which are rated for the power loads of the house and which are installed according to the National Electrical Code.

Mechanical System Existing Conditions and Evaluation

The original heating system for the Sherrick House was made up of the six brick fireplaces which still exist in the house. At a later date freestanding woodstoves were installed, connected to the chimneys through stovepipes to thimbles in the chimneys. The fireplaces are no longer safe to be used and the woodstoves have been removed from the house (see Life Safety Analysis).

The existing mechanical system in the house comprises small automatic room heaters with cast aluminum heating grids and fans, each totally enclosed in a metal housing (see electrical plans). The units are connected to 115 volt - 20 ampere receptacles. The units are either standing free on the floor or are bolted with L-brackets to the wall.

The existing system provides only minimal heat for the house, and is not energy-efficient. Although the house is not occupied, the heating system is used throughout the heating season. While the heat itself is not necessary for comfort, it appears to be effective in keeping the interior of the house dry and conserving the materials in the building. There has been little work done on the interior of the house, and the condition of the plaster and wood mouldings is generally good, with little water damage.

FARMHOUSE, EXISTING ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS

Mechanical System Requirements for Use as a Single Family House

The simplest and least intrusive mechanical system which could be installed in the house would be electric baseboard heaters. A baseboard system would be easy to install, but would be expensive to operate.

A ducted heating and air conditioning system using an outdoor heat pump type condensing unit, a supplementary resistance heat unit and an interior air handling unit. Ductwork distribution would be in the basement and attic and registers would be in the floor or ceiling. Ductwork would be required to penetrate the floors and ceilings.

Ventilation would be required in the spring room, basement, attic and bathrooms using fans ducted to the outside with wall caps. Electrical cabinet heaters in sub-basement and basement would keep temperatures in those rooms above freezing.

Mechanical System Requirements for Use as a Single Family Residence

Provide electric baseboard heaters in each furnished space with new wiring concealed in floor. Provide integral thermostat with each heater. Reuse the existing cabinet heaters in the basement and sub-basement. This would be the lowest first cost system. Reuse existing cabinet heaters in basement and sub-basement.

As an alternative, install a hot water oil or gas boiler in the basement, with circulating hot water baseboard heaters in all rooms. This would be the highest first cost system, but would probably be the lowest fuel cost system

Provide ventilation in sub-basement, basement and bathroom by means of utility fan with wall cabinet. Provide attic exhaust fan for general ventilation.

Plumbing System Requirements for Use as a Single Family Residence

The existing water in the basement spring is not adequate for residential plumbing requirements. A connection to the Sharpsburg municipal system could be made, approximately 1/4 mile from the house. This connection could be adequate for both domestic and fire protection water requirements.

The most economical sewage system for a rural house would be a septic system, however studies indicate that there is not a likely perk point near the house (see Appendix H, Site Evaluation for Septic Disposal). A sewage connection to the municipal system in Sharpsburg could be made at the intersection of Church Street and East High Street. A sewage pump would be required to make the connection.

FARMHOUSE, EXISTING ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS

Plumbing System Requirements for Use as a Single Family Residence (cont'd)

The minimum plumbing which would be required would be one full bath which includes a water closet, a bathtub, and a lavatory and a kitchen sink with connections for clothes washing.

Plumbing Requirements for Use as an Exhibit House

Kitchen and toilet facilities would not be required at the house, except for the use of NPS personnel working at the house.

FARMHOUSE, COMPLIANCE WITH BUILDING CODES AND REGULATIONS

This chapter of the report evaluates the building to determine if it meets the minimum standards of local codes and regulations. The chapter addresses life safety issues, energy conservation, security, and handicapped accessibility. The locations of potentially hazardous materials in and around the building are also identified. The building code used by the local building department and in this analysis is the 1992 CABO One and Two Family Dwelling Code prepared by the Council of American Building Officials. Structural, electrical, mechanical, and plumbing codes are addressed in their respective sections. This evaluation assumes the use of the Sherrick House as a single family residence.

Life Safety Analysis

The life safety analysis evaluates the construction of the existing building, installation and condition of the existing systems relative to fire safety, alarm and detection equipment, fire suppression and water supply, emergency lighting and means of egress.

Construction

The Sherrick House is a brick building with two stories and an attic set on a stone foundation enclosing a basement and a sub-basement. The foundation walls are built into the side of a steeply-sloping site. Interior walls, floors and roof rafters are framed with oak, and the roof is covered with cedar shingles.

There are four brick chimneys, serving the six fireplaces in the house. The fireplaces have plastered brick fireboxes, either brick or mortar hearths, and unlined brick flues. There are metal thimbles for connecting wood burning stoves to the chimneys above all six fireplaces and in the servant room on the 1st floor and the nursery and northeast bedroom on the 2nd floor. There are no dampers in the chimneys.

The building code standards for fireplaces require that if the fireplace opening is greater than six square feet, then the hearth must extend 20" in front of the opening and 12" on each side (CABO R-903.6). All of the fireplace openings are greater than six square feet, and none of them have these required hearth dimensions. Furthermore, the same section of the CABO code requires that no combustible material may be within 6" of the fireplace opening. In all of the fireplaces the wood mantels are inside of this required clearance.

The code requires that chimneys extend 2' above any portion of the building within 10' (CABO R-901.5). The two chimneys on the south are lower than parts of the hipped roof which are within 10'. The south chimneys would have to be approximately 4' higher to meet this requirement.

FARMHOUSE, COMPLIANCE TO BUILDING CODES AND REGULATIONS

Life Safety Analysis (cont'd)

The code requires that a chimney either be lined, or that the thickness of the masonry be no less than 8" thick (CABO R-901.7). None of the chimneys are lined, and all of them have portions which are less than 8" thick.

The thimbles for connecting woodstoves to the chimneys are inadequate and there is no fireproofing, hearths or other accommodation for the installation of wood stoves in any of the rooms where thimbles are located (CABO R-905).

It is not recommended that any effort be made to bring the fireplaces or chimneys up to code. The fireplaces and chimneys are significant historic material, and any effort to make them usable would damage historic fabric. It is recommended that the fireplaces not be used.

Emergency Lighting, Fire Alarm and Detection

There is no emergency lighting system in the house, and none is required for the use being evaluated.

There are no fire alarm or detection systems within the house. The building code requires a smoke detector on each floor and outside each group of sleeping areas (CABO R-215).

Fire Suppression and Water Supply

Although local building and fire codes do not require a fire suppression system in the house, it is required by National Park Service Guidelines, NPS-76.

There is no existing fire suppression system in the house. There is a hand held fire extinguisher mounted on the wall in the basement at the bottom of the servant stair, but it has not been maintained. The most recent inspection listed on the record tag is 1986.

Water supply on-site is limited to the existing spring in the sub-basement. The spring is not adequate to provide the necessary water pressure or water quantity for a fire suppression system. The Sharpsburg Volunteer Fire Department responds to fires at the park and would draw water from their 5000 gallon tanker truck.

One alternate source of water would be to extend a water line from the existing fire hydrant which is approximately 1/4 mile north of the house. A hydrant connected

FARMHOUSE, COMPLIANCE TO BUILDING CODES AND REGULATIONS

Life Safety Analysis (cont'd)

to this line in front of the house on Burnside Bridge Road could serve both the Sherrick House and the Otto Farmhouse.

Means of Egress

The code requires one exit for each dwelling which fully conforms to the standards. The main entry of the house and the paths leading to the main entry comply with the standards of width and height of the door, width of the hallways and stairway along the exit path, and the size of the landing at the exit door. The main entry door is currently nailed closed, and must be made operable to be acceptable as an exit.

The main stair leading down from the attic does not comply with the requirements for an egress access. The handrail is not continuous and is wider than allowed (CABO R-214.1). At the landing between the 2nd floor and attic, the stairway does not provide the required clear headroom (CABO R-213.1). The attic is not a habitable space, so this is not a serious violation.

The servant stair does not conform to the required width or headroom (CABO R-213.1), the required dimensions for winders (CABO R-213.2), the required size and height for a guardrail at the floor opening in the nursery (CABO R-214.1), and the stair does not have a handrail. Furthermore, the condition of the stair between the basement and the 1st floor is poor, and is dangerous to use in its existing condition. Because of these problems, the servant stair cannot be counted as an exit, however all of the rooms the servant stair serves have alternate means of egress. The 2nd floor nursery can exit through the southwest bedroom, the 1st floor servant room can exit through the dining room, and the kitchen in the basement can exit directly out the basement door to the north. The door from the kitchen does not comply, however, with the required width or height of an exit door, and the glazed window is required to be of tempered glass (CABO R-208.4 and R-211).

In addition to the main exit, sleeping rooms are required to have an operable window with minimum dimensions (CABO R-210.2). All of the windows in the sleeping rooms comply with the requirements. However, the interior storm sash are nailed to the frames and prevent the windows from being opened. To comply with this rule the storm sash must be removed from one window in each sleeping room.

FARMHOUSE, COMPLIANCE TO BUILDING CODES AND REGULATIONS

Energy Conservation

The energy conservation analysis evaluates the environment around the house, the thermal characteristics of the house's construction, and the energy efficiency of the existing systems in the house.

The Sherrick House is built into the side of a south-facing slope. This siting of the house provides maximum exposure for the house to the low southerly sun during the cold winter months. During the summer months, the windows on the south side at the basement and the 1st floor are protected from the high sun by the projecting porch and porch roof. The Gardner photograph and other historic photos from the early 20th century show large, leafy trees on the south, east and west of the house which would have provided additional shade for the house during the summer. Since most of these trees would lose their foliage during the winter, the winter sun would still be able to help in warming the house.

The only insulation in the house is 2 1/2" thick poly-styrene rigid insulation laid on the attic floor and 6" fiberglass insulation between the joists supporting the 1st floor. The insulation at the attic floor creates an R-11.4 thermal layer above the 2nd floor, and the batt insulation below the 1st floor creates an R-25.6 thermal layer between the basement and the 1st floor. The insulation above the 2nd floor is important because the 2nd floor ceiling would be an area of great heat loss. The area below the 1st floor over the storage room of the basement would also be an area of heat loss and is benefitted by the insulation. The usefulness of the insulation over the kitchen area of the basement is not so clear. Since the insulation at the kitchen ceiling is separating two heated spaces, it is of no benefit.

The masonry walls of the house are uninsulated, and in spite of their thickness, they result in a low thermal resistance for the walls (see Appendix D, Thermal Calculations). The 24" thick stone walls of the basement and sub-basement have a total thermal resistance of R 2.92, and the 12" thick brick walls of the 1st and 2nd floors have a total thermal resistance of R 3.4.

The storm windows installed on the interior of the windows greatly increase the thermal resistance of the windows and reduce the air infiltration which occurs at the windows. The storm windows add as much as R 2.0 to the thermal resistance of the windows. That still brings the total thermal resistance of the windows up to less than R 3, which is close to the thermal resistance of the masonry walls.

The thermal characteristics of the construction of the house are below the standards recommended by the FHA Minimum Property Standards for thermal resistance.[29] Based on an estimated 5000 degree-days of heating per year for the Antietam area, the FHA recommends ceilings to have an R value of 30, walls to have an R value of 12 and floors to have an R value of 11. The only component which meets these

FARMHOUSE, COMPLIANCE TO BUILDING CODES AND REGULATIONS

Energy Conservation (cont'd)

standards is the floor between the basement and the 1st floor. This is important at the north part of the basement which is over the storage room, but unimportant over the kitchen. All other components of the house are areas of substantial heat loss.

Security

There is no electrical security system in the structure. The existing security system for the house consists of a variety of locks and latches on the exterior doors. The doors to the 1st floor are currently all secured closed, using sticks propped and/or nailed against the floor and the door. The door to the south porch from the dining room is secured with a small barrel bolt and a chair propped against the latch and the floor. The Carpenter latches on the exterior doors at the 1st floor do not lock.

The only door which can be opened from the outside is the basement door to the kitchen on the east side. This door has a modern Corbin keyed latch with an NPS cylinder, operated by a key turn from the outside and a thumb turn from the inside. The door also has a box latch, but it is corroded and is not operable. The sub-basement door to the spring room is secured by a chain and a padlock.

Windows on all levels of the house can be easily opened from the outside. The interior storm sash are not operable, however, and would have to be removed before entry through a window would be possible.

The existing security of the house is poor. Because of relative isolation of the house, anyone trying to break into the house would have time to find the weaknesses in the security system, and could easily succeed in entering the house, either through a window or a door.

Handicapped Accessibility

The Uniform Federal Accessibility Standards (UFAS) which sets the minimum standards for facility accessibility by physically handicapped persons to Federal facilities does not require that the farmhouse be accessible if it is maintained as a single family residence. Should it become desirable or necessary to make the farmhouse handicapped accessible, then several alterations will be necessary.

The main entry to the house has three steps up to the porch, making it inaccessible to a wheelchair. From the porch there is an additional step up to the entry door. To make the house accessible, either a ramp or a lift to the front door would have to be constructed, or an alternate entry would have to be constructed. The most

FARMHOUSE, COMPLIANCE TO BUILDING CODES AND REGULATIONS

Handicapped Accessibility (cont'd)

reasonable alternate entry would be the door to the east end of the stair hall, where construction to achieve accessibility would have a minimal impact on the appearance of the house. To achieve accessibility through the east door, construct an accessible path around the north end of the house, and provide a lift or a ramp on the east side to the east door.

Even if the 1st floor were accessible, the rest of the house would still not be. To achieve accessibility to the 2nd floor, attic, basement, and sub-basement would require major modifications to the house and would damage a lot of historic fabric. The minimal construction would involve a lift to the 2nd floor, an accessible bathroom, an accessible kitchen, and modifications to doorways to meet the requirements for minimum width of doorways and maximum height of thresholds.

Building Code Compliance

The following items in the house do not conform to the CABO One and Two Family Dwelling Code and are not addressed in the life safety, structural, mechanical or electrical evaluations.

Light, Ventilation and Heating

The windows of the 1st and 2nd floors provide sufficient light and ventilation to satisfy the required amounts (CABO R-203). In the attic, the basement storage room, the basement pantry and the sub-basement, the existing windows provide less than the required glazed area of 8% of the floor area. These spaces are not considered to be habitable areas by the code and are not required to meet the minimum glazing area standards.

The kitchen area of the basement is considered to be habitable by the code, however, and the two windows in the space provide less than one half of the required glazing. The kitchen ceiling is also too low. The required height for a kitchen is 7'-0", and the ceiling of the kitchen area is only 6'-8" (CABO R-205).

Masonry foundations are required to be dampproofed with a 3/8" portland cement parging (CABO R-306). The masonry foundations do not have this dampproofing. The code also requires that structural wood exposed to damp conditions be pressure treated (CABO R-309). None of the structural wood is pressure-treated, although much of it is exposed to the conditions which require it, such as the floor joists in the basement under the east end of the kitchen and in the basement storage room. Crawl space areas such as the area under the east end of the kitchen are also required to have one square foot of ventilation openings for every 150 square feet

FARMHOUSE, COMPLIANCE TO BUILDING CODES AND REGULATIONS

Building Code Compliance (cont'd)

of crawl space area (CABO R-311), and to be protected against termite damage (CABO R-310). None of the required areas has the required ventilation or termite protection.

The size and spacing of the wood lath to which the wood roof shingle are nailed do not meet the code requirement that spaced sheathing not exceed 4" nor the width of the sheathing board, and that the minimum size of roof sheathing not be smaller than 1" by 3" (CABO 808.1).

Hazardous Materials

The following is an overview of the possible locations of hazardous materials that may be found in the house or on the site.

Asbestos

Asbestos is a mineral product that because of its noncombustible characteristics was used in a wide variety of building products manufactured after World War II. Typical materials in which asbestos was used were acoustical insulation, pipe insulation, duct and boiler insulation, plaster and taping compounds, and roof and flooring materials. Since the 1970s, airborne asbestos fibers have been linked with diseases such as asbestosis, mesothelioma, lung and other cancers. As a result, the use of asbestos in building materials has stopped.

Federal and state governments have or are in the process of enacting legislation on the handling of asbestos containing materials. While this legislation varies between jurisdictions, all entities regard the building's owner as responsible for asbestos in their buildings.

Possible Asbestos Containing Material (ACM) locations at the Sherrick House:

- The sheet linoleum in the kitchen may contain asbestos.
- The insulation on the old electrical wiring in the house may contain asbestos.

Lead

Lead and lead compounds are toxic if ingested. Lead poisoning is considered a major health concern in young and unborn children. Lead and lead compounds were typically used as the pigment in paint in general use before 1978. The state

Hazardous Materials (cont'd)

of Maryland does have requirements defining the allowable limits of lead contamination in residences. The paint finishes were not tested to determine the components or lead content of the paint. Considering the age of the residence and the age and types of the paint coatings found on the exterior and interior of the building, it is highly probable that most of the paint coatings contain lead.

Radon

Radon is a colorless, radioactive, inert gaseous element that is produced in nature by the disintegration of uranium and radium in rock and soil. Although uranium is abundant in the earth's crust its concentrations vary within the same type of rock and within the same rock formations. Radon is a major source of the ionizing radiation that is a health hazard. Radon typically enters a building by leaching up through the ground under the building or through well water. Because of its gaseous state, radon concentrations increase as buildings are made more energy efficient with less ventilation.[30] The Environmental Protection Agency has determined that 4 pico curies per liter is the maximum allowable limit for radon.

Possible sources of radon at the Sherrick House:

- The ground under the house is not covered or sealed and may allow radon gas to enter the house.
- The spring water may have absorbed radon gas, which may enter the house as the water is used.

Petroleum Products

Storage of petroleum products is a potential source of contamination for surface and ground water. Leaks from tanks used to store fuel oil and gasoline has resulted in the regulation of underground storage tanks under the Hazardous and Solid Waste Amendments of 1984 (Resource Conservation and Recovery Act).[31] There are no petroleum product storage tanks known to be on the site.

FORCES AFFECTING THE PRESERVATION OF THE FARMHOUSE AND SITE

Identification

Natural and manmade forces combine to cause deterioration of the Sherrick House. Neglecting the problems caused by the natural and manmade forces which are acting on the building can jeopardize the future of the house.

Natural Forces

- Rain, snow, ice and moisture deteriorate the painted wood, wood roof, and masonry. If allowed to penetrate the building it deteriorates interior finishes and materials.

- High humidity in the basement and the sub-basement from exposed earth in the basement and sub-basement and from the water in the spring in the sub-basement provides favorable conditions for the growth of wood-decaying fungi in the structural wood framing and the wood floors.

- High humidity in the basement, the sub-basement and other areas of the house causes corrosion of fasteners, door hardware, and other metal objects.

- Sunlight shining on the finishes, especially the finishes of the grained doors and the wood windows, causes deterioration of the wood and finishes.

- Electrical storms can start fires which could destroy the house (lightning caused the fire which destroyed the Sherrick barn).

- Insects, birds, rodents, bats and other wildlife burrow, bore, nest, chew, defecate and decompose in and around the house, damaging all types of materials. Currently, groundhogs are undermining the foundations and chewing on wood doors and frames, birds are nesting in the chimneys and other places, wasps are nesting in various locations, and powder post beetles are boring in floor timbers.

- Plants growing around and in the house damage masonry and wood with penetrating roots.

Manmade Forces

- Vandalism and theft.

- Well-intentioned maintenance work which obscures, damages or removes historic fabric.

FORCES AFFECTING THE PRESERVATION OF THE FARMHOUSE AND SITE

Identification (cont'd)

- Fire from arson, accidents or problems with the electrical system.

- Wear and tear from normal use of the building, such as abrasion on the wood floors, tracking of moisture and dirt, wear and handprints on doors, hardware, around switches, and handrails, and over-cleaning of historic materials.

Analysis

The farmhouse and farmstead are currently in stable condition and if maintained will be protected from the adverse effects of the forces acting on it. Regular and conscientious maintenance can prevent deterioration of the house from natural or man-made causes.

Recommendations and Constraints

Rain, snow and ice are controlled by the roof, gutters and sealant systems. These elements must be maintained and monitored on a regular basis to ensure that they not allow water penetration into the house.

The humidity in the basement and sub-basement can be mitigated by ensuring that there is adequate ventilation in these spaces. The spring makes this problem greater than usual, and a dehumidifier in the sub-basement would help to keep the humidity level low. Growth of fungi causing decay of the wood can be prevented by the use of a penetrating fungicide on the wood, such as pentachlorephene. Corrosion of metals can be reduced by cleaning, oiling or finishing of metal hardware, where appropriate.

The damage caused by sunlight on the wood and finishes cannot be avoided in some places, such as the wood windows. In other locations, however, simply protecting the material from exposure to the sun would prevent deterioration. For example, this can be done with materials such as the door to the servant stair in the servant's room, on which the graining is being damaged by exposure to the sun, simply by keeping the door closed and out of the light of the window.

Damage caused by fires from electrical storms could be minimized by a fire suppression system. The damage could still be substantial, however. A lightning rod system could be installed which does not detract from the appearance of the house, but which would provide protection from this hazard.

FORCES AFFECTING THE PRESERVATION OF THE FARMHOUSE AND SITE

Recommendations and Constraints (cont'd)

Insects, birds, rodents and other animals must be constantly monitored and removed from the house when they get in. The current problem with the groundhogs must be eliminated with whatever means are necessary, and then monitored to ensure that it does not reoccur. Insects, birds, and other animals must be removed as soon as they get in, and their access to the house must be screened or otherwise eliminated to prevent future infestation.

The plants growing around the house must be kept trimmed back so that the roots cannot penetrate the masonry or the windows. This must be monitored and controlled on a regular basis.

Vandalism and theft at the Sherrick House can be prevented by a security system in the house and by monitoring of the house. Vandalism and theft have not been reported as problems in the past at the Sherrick House, but once they become problems it is already too late.

Damage to historic fabric caused by ill-advised maintenance may be prevented by a review process for all procedures which take place at the house. The reviewers must be knowledgeable about the effect of the work done on the house, and must be sensitive to the historic value of the house and its components.

The threat of man-made fires at the Sherrick House must be minimized by monitoring the electrical system, controlling who has access to the house, and by strictly forbidding smoking or other fires in or around the house. A fire alarm and suppression system installed at the house would minimize damage from a fire should one break out at the house.

Wear and tear on the house from the comings and goings of people is inevitable to a certain degree, but there are many steps which can be taken to minimize it. Restrict the number of people who are in the house. Ensure that everyone who does go into the house is knowledgeable about the historic, fragile nature of the materials in the house and understands what needs to be done to minimize the impact of using the house. Clean the dirt and broken plaster from the floors so that walking in the house is not so abrasive.

PART 2. TREATMENT AND USE

PART 2. TREATMENT AND USE

JUSTIFICATIONS FOR RECOMMENDATIONS

The following options outline four different levels of work which may take place at the Sherrick House and Farm. These four options are in preferred order. Option I is necessary to the preservation of the historic fabric; Option II restores missing or altered historic fabric; Option III is a proposed use for the house as a site for special tours; and Option IV explores the proposed use of the house as a single family residence, an option which is not recommended. It is recommended that the preservation work of Option I be carried out as a minimum program for the Sherrick House. If budgets allow, the restoration work of Option II should be executed. Option III should take place if the house is going to be actively used as a tour house. We do not recommend that Option IV, adapting the house for use as a residence, be carried out.

Option I: Stabilize and maintain the existing fabric of the Sherrick House.

Stabilizing and maintaining the existing fabric of the farmhouse would be the least intrusive action possible for the Sherrick House. With this option, only necessary stabilization and maintenance of the house would be done. This option does not include undoing any previous work which was historically inaccurate or replacing missing elements. The stabilization and maintenance which would be done for this option is the necessary minimum work which needs to take place, and is the basis for all the other options.

The work of this option includes:

- Repair the deteriorated wood basement floor.
- Repair the deteriorated wood cornice and roof above the entry porch.
- Update the electrical and heating systems.
- Evict groundhogs and repair the masonry, doors and window bars which they have damaged.
- Point masonry where it is deteriorated and replace spalled bricks.
- Perform cyclical maintenance, such as roofing and painting of exterior wood.

Option II: Maintain and/or alter the exterior of the house and the landscape to be accurate to Civil War era. This work does not preclude the work of Option I.

Because so little has been changed on the Sherrick House, little additional work would have to be done to restore the exterior of the house accurately to its Civil War appearance. The basis for most of this work is the appearance of the house as seen in the Gardner photograph and the layout of the farm as seen in the Ourand maps. This option takes a more activist approach to the house, and runs the risk of removing existing historic fabric and replacing it with something non-historic.

The additional work which would be done to restore it to the way it looked at the time of the Battle of Antietam includes:

- Reroof the house to match the Civil War era roofing, with Dutch laps where appropriate, on both the house and the summer kitchen.
- Restore plantings, fencing, paths, steps, stone retaining walls, and the wooden sheds on the east of the summer kitchen.
- Rebuild the missing stone outbuilding to the east of the summer kitchen.
- Rebuild the porch roof to match the original hip roof.
- Bury electric lines underground and move the electric meter from the southwest corner of the house to an obscure location either at the north elevation or in the basement interior.

Option III: Use the house and site for specialty tours (in conjunction with Options I and/or II).

Using the house and site for specialty tours would allow the house to be known and understood by those people who have a special interest in architectural history, historic construction, social history of 19th century farm life, or Civil War history. The house is unaltered and of such high quality so that it provides a unique opportunity to interpret 19th century architecture and farm life.

The only additional work which would have to be done on the house other than the work described in Option I and/or Option II would be to make the house handicapped accessible, as required by the Uniform Federal Accessibility Standards.

Option IV: Not recommended - Rehabilitate house for use as a single family residence (in conjunction with Options I and/or II).

Rehabilitation of the Sherrick House for use as a single family residence would require major interventions in the house. To do this work would require extensive remodeling of the existing house, which would necessarily damage, remove or cover

historic fabric. The importance of the house is largely because it is uniquely unaltered, and to subject it to these interventions and this wear would diminish it.

In addition, general wear and tear on the building would be greater with full-time residents living in the house than there would be with only occasional tour groups. The grained finishes on the doors, the wood floors, the historic hardware, the plaster finishes on the interior walls, the wood mouldings and other historic materials would suffer wear from daily use by house residents.

The advantages of using the Sherrick House as a single family residence would be to provide greater security and monitoring of the house. An occupied house would be less inviting to vandals, arsons and thieves, and residents of the house would be aware of any physical problems with the house as they developed. However, a 24-hour security system and conscientious patrolling of the park could accomplish a similar level of security, and a diligent monitoring program could achieve the same level of maintenance as having residents in the house.

To make the house habitable according to today's codes, this option would require the following work on the house.

- Install a complete bathroom, including a water closet, lavatory and bath or shower.
- Install a kitchen with a sink.
- Install a complete updated electrical system.
- Install an effective heating system
- Perform general repair of the interior, such as painting, plaster repair and replacement of locks and other hardware.
- Modify the storm windows to allow the use of windows as emergency exits from sleeping spaces.

RECOMMENDATIONS, ALTERNATIVES AND COST ESTIMATES

Introduction

The Sherrick House's deficiencies identified in the Existing Condition Survey, Existing Structural System Evaluation, Existing Electrical, Mechanical and Plumbing Systems Evaluation, and Compliance with Building Codes and Regulations are evaluated in this chapter. Also evaluated in this section are the existing outbuildings and the landscape of the farmstead, and their contributions to the site. Alternative actions in addition to the recommended action are considered and discussed.

General Condition Statement

The Sherrick House is in generally good condition. Building materials dating to the original construction of the house and to the time of the Battle of Antietam are remarkably intact and unaltered. The existing outbuildings on the site are also in good condition, and still have a considerable amount of intact historic fabric. Two buildings are now missing from the site, the stone outbuilding which was east of the summer kitchen, and the timber barn, of which only the stone foundation remains.

Although the house is in generally good condition, there are a number of deficiencies in the house which must be addressed. The basement floor is severely deteriorated and is close to failing. The non-historic roof and railing on the entry porch are deteriorating, leading to deterioration of original materials in the porch cornice and framing. These areas require major repairs immediately, to prevent further deterioration of historic fabric.

Other elements of the house do not meet current building code requirements. There is no plumbing system, the heating system is operable but inefficient, and the electrical system has deficiencies. For the safety of the house it is important that problems with the electrical system be repaired.

Building Elements - Problems, Alternatives and Recommendations

Structural Deficiencies

High humidity in the sub-basement resulting from the water in the spring and general ground moisture has caused severe deterioration of the joists and flooring of the basement above from fungus growth.

Recommended Action:

♦Remove deteriorated flooring and joists. Retain undamaged materials where possible. Replace removed flooring and joists with new wood to match existing. Splice new wood to sound existing wood where possible. Treat old

wood to remain and new wood with antifungal preservative, such as pentachlorophene. Provide ventilation and dehumidification to lower relative humidity in the air and to stop fungal growth.

Alternative Actions:

♦No action. The continued deterioration of the existing floor system will result in collapse of the floor.

♦Retain existing deteriorated members and strengthen with sistered members. This alternative preserves in place existing historic fabric. Likelihood of spread of fungal infection to previously undamaged wood is greatly increased. Some areas of the floor are so badly damaged that sistered members could not be used.

Powder post beetle infestation of wood at the basement storage space threatens structure.

Recommended Action:

♦Treat all wood in the storage area and other areas which show evidence of infestation with an insecticide formulated for use in exterminating these beetles, such as Bora-Care. Include loose, non-structural wood.

Alternative Actions:

♦No action. The infestation of insects will continue and will spread, causing irreversible damage to the structural wood.

♦Spot treat with an insecticide only the wood members which show indications of damage. This is a less expensive treatment, but the presence of beetle larvae is not always visible. Untreated insects may spread and reinfect the wood in the house.

Storm window sash are stored in the pantry area on the floor where the greatest deterioration has taken place.

Recommended Action:

♦Remove the storm sash from the basement pantry and store them in a location which has not deteriorated. Removing the sash takes an unnecessary load from the deteriorated floor.

Alternative Action:

♦No action. Leaving the storm sash on the deteriorated floor will hasten structural failure and makes it even more unsafe to walk on this part of the floor.

The porch cornice and roof have deteriorated. The wood framing of the cornice and the roof is exposed to the elements and is deteriorating, as well.

The porch deck has decayed under the southwest column, causing the anchor supporting the column to settle into the deck. The bottom steps are loose from the porch, and the skirt board is decaying along its bottom edge.

Recommended Action:

♦Remove the non-historic balustrade above the porch, the non-historic flat roof and all the decayed wood. Replace all the decayed wood, and replace the roof with a hip roof to match the original historic roof. Do not replace the non-historic baluster. These repairs are necessary for the preservation of the porch, as water is getting inside the structure and causing further damage.

Alternative Actions:

♦No action. The deterioration of the porch is accelerating as more of it is exposed to the weather. No action will eventually lead to a collapse and total loss of the historic fabric in the porch.

♦Shore up and repair the porch roof and cornice as necessary to prevent further decay. This alternative would be less expensive in the short run than the recommended alternative, but would still preserve the historic fabric until such time as a complete restoration of the porch can take place.

Roof rafters do not have the capacity to carry the live load required by code.

Recommended Action:

♦No action. The roof has been in place for over 150 years, and shows no indication of failure. The risk of structural failure under wind or snow loads or loads from workers on the roof remains, but the historic fabric is unaltered. Limit access to the roof, and spread the load on the roof whenever workers are on it. Monitor the condition of the roof structure on a regular basis, especially when there is a snow load on the roof or when there are workers on the roof.

Alternative Actions:

♦Install sister rafters and hip beams which supplement the strength of the existing original rafters. This method strengthens the roof framing and may allow the roof system to meet code requirements, but it preserves in place the existing historic fabric. It shoud be done in a manner that does not damage or obscure the existing original materials. If reinforcing of the roof framing is required, this is the preferred method.

♦Remove the existing roof system and replace it with new rafters, hip beams, sheathing, and roofing. This method will allow the roof to meet all code requirements, but existing historic fabric is lost.

♦Brace existing rafters at midpoint with knee wall. This alternative strengthens the roof framing, but preserves in place the existing historic fabric. It is necessary to verify the condition of the bearing on the attic floor to ensure that other damage will not be caused by the load from the roof.

Collar ties at the roof are loaded with stacks of heavy wood window shutters. Collar ties, rafters and hip beams are severely overloaded and causing deformation of the structural members.

Recommended Action:

♦Immediately remove the shutters from the top of the collar ties and store them in other locations in the house which have an adequate live load capacity.

Alternative Action:

♦No action. The weight of the shutters on the collar ties will cause failure of the roof structure.

♦Strengthen the collar ties and rafters so that they can carry the load of the stored shutters. This alternative creates unnecessary work at the house and obscures the original structural system.

The mortar in some locations of the brick and stone masonry has deteriorated.

Recommended Action:

♦Repoint the deteriorated joints. Use a soft lime mortar which matches the color and texture of the original mortar. This should be part of the regular maintenance of the house.

Alternative Action:

♦No action. The masonry will continue to deteriorate, eventually leading to serious deterioration of the stone and brick masonry.

♦Point the masonry with a hard cement-based mortar. This will hasten the deterioration of the brick and stone.

Mechanical, Electrical and Plumbing Deficiencies

The heating system is expensive to operate and ineffective in providing even, regulated heat to the house.

Recommended Action:

♦Remove the existing electric resistance heaters and replace them with new, energy-efficient heating units. Use remote thermostats to control the heaters, and keep the winter settings at a moderate temperature, below 45°. A new electric heating system would utilize the existing electric outlets for power, would be relatively inexpensive to install, would be less expensive to operate than the existing system, and could be easily reversible if it was unwanted in the future.

Alternative Actions:

♦No action; continue using the existing heaters. The existing heaters are not energy-efficient, but could be more efficient if they were set to run at more moderate temperatures. Anchor the units so that there is no danger of them falling over and starting a fire, and monitor them on a regular basis throughout the heating season.

♦Do not heat the house. Not heating the unoccupied house would save a large amount of money in energy costs. Not heating the house introduces the danger of damage occurring as a result of wide annual fluctuations in temperature and humidity. Wide fluctuations in temperature and humidity could result in damage to wood panels, frames, and mouldings, plaster and metals.

♦Install a central oil or gas heater with pipe distribution to baseboard radiators. This type of system would provide energy-efficient heat, but would have a high initial cost to install. Installing a central boiler and cutting holes in floors for pipe distribution would be an unacceptable intrusion on the historic fabric of the house.

♦Install a ducted heating and cooling system with a central air handling unit. This type of system would provide efficient heating and cooling for the house and could provide humidity control, as well. A ducted system would require major openings to be cut in the floors for air distribution and registers and would cause irreversible damage to the historic fabric of the house.

There is no existing plumbing in the house for household use.

Recommended Action:
♦No action. Anticipated uses for the house do not require plumbing. Installation of a plumbing system would require major interventions in the historic fabric of the house.

Alternative Actions:
♦Install the plumbing fixtures required for a single family residence; a full bath with a water closet, shower or tub, and lavatory, and a kitchen with a sink. Installation of plumbing facilities would be a major intrusion on the historic fabric.

The main and subfeed electrical panels in the Sherrick House do not have nameplates, spare breakers, spare capacity, and inadequate clearance. The capacity of the system is marginal for the uses of the house.

Recommended Action:
♦Replace existing electrical panels with new panels which have proper clearances, spare breakers and capacities, and proper identification, and either limit the use of electricity in the house or upgrade the capacity of the system. Locate the new panels in closets, storage rooms or other discreet locations. These deficiencies in the electrical system create fire dangers which must be corrected, and these changes would be inexpensive and easy to accomplish.

Alternative Actions:
♦No action. Leaving the system as it is would be less expensive in the short run, but the potential cost of a fire as a result would be catastrophic.

Above-ground electrical lines running to the house intrude on the historic appearance of the house.

Recommended Action:
♦Remove the existing meter and overhead service to the house. Repair the holes in the masonry from the lines running to the basement panel. Run a buried electrical line to the house. A buried electrical line and a relocated meter would enhance the historic appearance of the house.

Alternative Actions:
♦No action. No cost would be involved, but the electrical service would continue to intrude on the historic appearance of the house.

Life Safety Deficiencies

Chimneys and fireplaces do not comply with code requirements for chimney height, fireplace opening size, hearth size, flue lining, and distance to combustible materials.

Recommended Action:

♦No action, do not use fireplaces. Fireplaces and chimneys are significant historic material and to remedy these code deficiencies would be very damaging to them. The fireplaces should not be used, both for safety reasons and for the preservation of the fireplaces.

Alternative Action:

♦No action, build fires in the fireplaces. Using the fireplaces would be a severe hazard to the house and would be damaging to the fireplaces.

♦Make modifications necessary to the fireplaces to bring them up to code and make them usable. The fireplaces could be used to provide auxiliary heat. Fireplaces and chimneys are significant historic material and to make them safe for use would be very damaging to the historic fabric.

There is no fire alarm or detection system in the house.

Recommended Action:

♦Increase security patrols at the park so that the house is checked several times daily for both fire and security. This type of security patrol will not provide the immediate response to a fire that an alarm system could, but it would prevent a fire from burning for hours without detection. Inspect the lightning protection system and the electrical system on a regular basis so that deficiencies in the systems do not lead to a fire.

Alternative Actions:

♦No action. This alternative would have no cost, and would not require any alteration to the historic fabric of the house. Because of the remote location of the house, a fire would probably not be reported quickly and the house would be severely damaged.

♦Install smoke or heat detectors as part of an integrated fire protection system. An integrated system in the house signals the presence of a fire either with the local fire department or at an NPS security station, as well as starting evacuation alarms. Signalling a remote location where there is 24 hour staffing would ensure that response to a fire would be quick. To be effective, this would have to be part of an comprehensive security and fire protection system for the Park. It would require full-time monitoring and a telephone line to the house. In the future, the telephone connection may be provided through a cellular phone system and running a line to the house would not be

required. A fire-detection system could be integrated with motion detectors to monitor for break-ins, as well.

There is no fire suppression system in the house.

Recommended Action:

♦Install fire extinguishers in strategic locations throughout the house. Fire extinguishers would not have such a detrimental impact on the historic fabric of the house. Fire extinguishers would not be effective if the house is unoccupied and there is no one in the house to use them.

Alternative Actions:

♦Install a wet sprinkler system as part of an integrated fire protection system. This is the simplest and least expensive of the fire suppression systems. A supply of water with adequate pressure is required (see plumbing analysis). A wet sprinkler system requires freeze protection for the pipes. Piping and sprinkler heads would be visible in every room of the house. If activated, the water from the sprinklers would damage wood, plaster and hardware in the house.

♦Install a dry sprinkler system as part of an integrated fire protection system. A dry system is more expensive than a wet system, but it does not require freeze protection for the pipes. A supply of water with adequate pressure is required (see plumbing analysis) and additional equipment is required for a dry system. Piping and sprinkler heads would be visible in every room of the house. If activated, the water from the sprinklers would damage wood, plaster and hardware in the house.

♦Install a halon fire suppression system as part of an integrated fire protection system. A halon fire suppression system would not cause water damage to historic fabric, as a water system would. Because of the environmental hazards of halon, these systems are not available for general use.

The egress path from the house does not comply with the code in handrail size, headroom at the stair to the attic, size of egress door from the basement, egress door blocked closed, and egress through windows is blocked by fixed interior storm sash.

Recommended Action:

♦No action, except to remove stick blocking egress door on the 1st floor and replace it with a lock which would be historically compatible and which could be operable from the interior. The house is typically not occupied and the code violations are relatively minor. A reasonably safe egress would be available if needed.

Alternative Actions:

♦No action. The blocked doors at the 1st floor could create a very hazardous situation if a fire started while someone was in the house. The other violations are relatively minor and would not prevent a reasonably safe egress.

♦Make all the changes required so that the house complies with the code for means of egress. This alternative would be expensive, would damage a great deal of historic fabric, and would not gain a lot of additional fire security as a result.

Energy Conservation Deficiencies

There is no insulation in the walls of the house and the existing insulation at the attic floor and the basement ceiling is not adequate to make the house energy efficient.

Recommended Action:

♦No action. Any additional insulation in the house would require damage to the historic fabric of the house. Energy efficiency would remain poor.

Alternative Actions:

♦Fur out the walls and add insulation on the interior of the masonry walls. The energy efficiency of the house would be greatly improved. Furring the walls would damage or cover historic plaster, bases, wainscot, window sills, and window and door casings, and would be detrimental to the historic character of the house.

Security Deficiencies

There is no security system in the house to alert the Park of intruders in the house.

Recommended Action:

♦Increase security patrols at the park so that the house is checked several times daily for both fire and security. Make regular checks of the locks on doors and windows for tampering. This will not provide the immediate response to a breakin that an electronic system provides, but it does give notice of attempted breakins as well as breakins in progress.

Alternative Action:

♦No action. Rely on existing patrols for surveillance and the existing locks on doors and windows to provide security at the house. A breakin or vandalism could remain undetected for days, and historic fabric could be damaged or removed.

♦Install a motion detector system as part of a Park security system which alerts a central security office of breakins at the house. With this system Park security officers could be at the house soon after a breakin, preventing theft or vandalism to the house. This system could be integrated with a fire detection system as outlined above.

Building Code Compliance

The house is not handicapped accessible. An unassisted wheelchair would be unable to enter the house at any of the doors, as required by the Uniform Federal Accessibility Standards.

Recommended Action:

♦Install a path from the west entry walk around the north end of the house to a new wood ramp at the east door of the entry hall. A ramp to the east door would have a minor impact on the historic appearance of the house and would be simple to construct. Using the east door means that handicapped access to the house is through a secondary entry to the house.

Alternative Actions:

♦No action. Unassisted handicapped accessibility to the house would not be possible.

♦Install a ramp from the walk to the west entry door. A ramp to the west entry door would provide handicapped accessibility to the same entry as used by non-handicapped visitors to the house. A ramp on the west elevation would be detrimental to the appearance of the front elevation of the house.

♦Install a wheelchair lift to the west entry of the house. The machinery for a lift to the door would be detrimental to the historic appearance of the house. A mechanical lift requires regular maintenance.

The interior stairs of the house do not allow wheelchair accessibility to other levels of the house.

Recommended Action:

♦No action. Installation of the equipment needed to transport a wheelchair to other levels of the house would require damage to the historic fabric of the house. A public tour of the house which was restricted to the 1st floor would show most of the features of the house.

Alternative Action:

♦Install a lift which would provide access to the basement and 2nd floor of the house from the 1st floor. Installation of a lift in the house would require

damaging historic fabric, and would detract from the histric character of the house.

The kitchen in the basement does provide sufficient light, ventilation and headroom to comply with the code.

Recommended Action:

♦No action. Increasing the head room or window size of the basement would require major interventions in the house which would cause major damage to the historic fabric of the house. If necessary, the basement could be designated an uninhabitable space.

Alternative Action:

♦There is no action which is within the realm of consideration which would provide the required ceiling height for the kitchen. An exception is allowed for the requirement for light and ventilation where "an approved mechanical ventilation system is provided capable of producing a change of air every 30 minutes, artificial light is provided capable fo producing an average illumination of 6 footcandles over the area of the room at a height of 30 inches above the floor level" (CABO R-203.1). Installation of an HVAC system capable of this level of performance would be expensive and would cause damage to historic fabric.

Masonry foundations are required by code to be dampproofed with a 3/8" portland cement parging.

Recommended Action:

♦No action. Water seepage through the foundation walls is not a problem, so this action is unnecessary.

Alternative Action:

♦Excavate along the perimeter of the foundation and apply parging to the foundation wall. The excavation required to expose the walls for parging would cause damage. Parging would be expensive to install and would cover historic fabric.

Structural wood exposed to damp conditions is required by code to be pressure treated. The crawl space under the basement kitchen, where the floor joists are set directly on the ground, is defined as a damp condition according to the code.

Recommended Action:

♦No action is necessary in areas where decay has not occurred as a result of the damp conditions described in the code. Although the building code defines this space as a damp condition, deterioration has not taken place there.

Alternative Actions:

♦Treat with pentachlorophenol the floor joists in the crawl space under the kitchen. This treatment would be expensive and is not warranted by the condition of the wood.

♦Replace with pressure treated lumber all of the flooring and floor joists of the basement floor where they are set on the ground. To do this would be expensive and would require removal of historic fabric which is not deteriorating.

The roof lath to which the shingles are nailed does not meet the code requirements for minimum size or maximum spacing.

Recomended Action:

♦No action. The lath shows no signs of failing because of its small size and large spacing. Much of the roof lath is historic fabric, and it would be lost if replaced.

Alternative Action:

♦Remove the existing roof lath and replace it with which meets the code requirements. This action would require a total reroofing of the house and would require the removal of historic fabric.

Hazardous Materials

Paint layers on the house are likely to be lead-based.

Recommended Action:

♦Survey the house for lead-based paint. Follow proper abatement procedures when scraping, sanding, or removing lead-based paint or the materials which are painted with them. Perform an annual survey for peeling lead-based paint, and properly abate where it is warranted. Because the house is not occupied, the exposure to any individual will be minimal. Surveying, monitoring and abating when warranted is the most cost-effective approach to the problem.

Alternative Action:

♦No action. Potential lead-based paint hazards will remain unknown, and the risk of exposure is increased. Workers performing repairs will remain unaware of the hazards to which they are exposed.

♦Survey the house for lead-based paint. Follow proper procedures for abatement of all the paint which tests positive for lead. This will completely eliminate the hazard of lead-based paint from the house. Complete abatement would be very expensive and is not necessary for an unoccupied building. Abatement may damage historic fabric and would require removal of historic paint finishes.

House may contain asbestos in basement linoleum and in wire insulation.

Recommended Action:

♦Survey the house for asbestos. Follow proper procedures for abatement of asbestos-containing material. None of the potential asbestos-containing material is historic fabric.

Alternative Action:

♦No action. The asbestos hazard would remain unknown, and the risk of exposure, especially for workers removing the basement floor, would continue.

♦Survey the house for asbestos. Encapsulate asbestos-containing material where necessary. Follow proper abatement procedures for abatement of asbestos-containing material at the time that the material is to be disturbed for construction or repairs. This alternative would be less expensive over the short run. The basement floor should be removed anyway to reveal the wood floor beneath.

The basement and sub-basement may contain radon.

Recommended Action:

♦Monitor the basement and sub-basement for radon. Provide ventilation to reduce the radon level if it is found to be high. Ventilation in the basement and sub-basement are necessary for reducing humidity, as well.

Alternative Action:

♦No action. Any potential radon problem will remain. Because the building is unoccupied, exposure for any individual will not be high.

♦Monitor the basement and sub-basement for radon. Provide vapor barriers and radon control system for containing and evacuating radon if high levels are found. This is a more expensive approach, but may be necessary if high levels of radon are found. Even with high levels in the house, it is unoccupied and exposure to any individual will not be high.

Building Elements - Problems, Alternatives and Recommendations (cont'd)

Historic Deficiencies

These deficiencies are elements of the house and site which are structurally sound, but which are not historically accurate to the time of the Battle of Antietam.

The existing western red cedar shingle roofs on the house and the summer kitchen have different lap patterns from the lap patterns at the time of the Battle of Antietam. The historic shingles were not western red cedar, but another species, probably oak.

Recommended Action:

♦Do not replace the existing roof until it is in need of replacement. When the roof requires replacement, match the historic roof in materials and lap patterns, as seen in the Gardner photo of the house. The existing roof is in good condition, and reroofing before it is necessary is an expensive modification to the house. Reroofing the house to match the historic roof at the time it is required will incur additional cost, but will add to the integrity of the Sherrick House as an contributing historic feature of the Antietam Battlefield.

Alternative Action:

♦Remove the existing roof and replace it with a new one which matches the historic roof in materials and in lap patterns. Reroofing is expensive, and the cost of reroofing at this time would be better spent on other problems in the house.

♦No action. When reroofing is required in the future, reroof with conventionally lapped wood shingles. This would be the least expensive alternative, but would disregard the historic knowledge which is available about the house.

Site walls around the house have been rebuilt with pointed joints, painted faces, and clean and straight lines. The Gardner photo shows that the walls were laid without mortar, were unpainted and were uneven.

Recommended Action:

♦No action. The walls are structurally sound, and to rebuild them would require great expense. The walls are reasonable versions of the walls which were there historically. However, any painting, pointing or repairing of the walls should be done with an awareness of their historic appearance, especially as seen in the Gardner photograph.

Alternative Action:

♦Rebuild the walls so that they more closely resemble the appearance of the historic walls. This would be very expensive, and would only achieve a small degree of additional historic accuracy.

Trees, shrubs, fencing, outbuildings, and other site features, as seen in the Gardner photo, the Ourand maps and other historic documentation, are missing from the landscape aroung the house.

Recommended Action:

♦Develop a plan for restoring the missing site features to the Sherrick Farmstead. Include the locations and species of trees, shrubs and other plantings, the designs and locations of fencing, designs for the missing stone outbuilding and for the shed on the side of the summer kitchen, and plans for other missing features. Implement the restoration of the landscape over time. Begin with the trees and other plantings which will take time to mature, and build other features as budgets allow.

Alternative Action:

♦No action.

The original plaster in the house has deteriorated from moisture infiltration and from settlement cracks. The deterioration ranges in severity from minor cracking at the 2nd floor to complete loss of material in the basement ceiling.

Recommended Action:

♦Do not repair the damaged plaster. In most cases, the damage to the plaster is minor and does not detract from the appearance of the house. The original plaster is valuable historic material and repairs to the plaster would require damage to the fabric.

Alternative Action:

♦Rake cracks in the plaster and fill them with plaster patch. Remove loose and moisture-damaged sections of plaster and replace with new plaster. Completely remove deteriorated wall plaster in the basement and replace wall and ceiling plaste with new plaster. This plaster repair would restore the house interior, but qualities of the original plaster would be obscured.

Finishes on the house have deteriorated; paint on wood window sills has deteriorated, original finishes on wood and plaster have been overpainted, and original walnut graining on doors latches has deteriorated.

Recommended Action:

♦Analyze all of the painted elements of the house, including interior and exterior wood mouldings, plaster, grained doors and grained floors, to determine the colors and composition of the original finishes and the finishes at the time of the Battle of Antietam. Because so many of the finishes are original or have only one or two layers of overpainting, it is advantageous to perform this analysis now, before there is additional deterioration or refinishing. Repaint all the painted areas which will continue to deteriorate, such as the window sills and all the exterior woodwork, using the significant colors as determined by the analysis.

Determine the composition of the walnut graining on the doors. With a paint conservator develop a plan for conserving the graining, and perform the plan. This is especially important for the grained doors which have deteriorated finishes, such as the door to the servants stair. The graining is rare and valuable historic material, and the emphasis should be on preserving it as far as possible, rather than restoring or reconstructing it.

Alternative Action:

♦In addition to the above recommended action, repaint the entire interior of the house, using the significant colors as determined by the analysis. With a paint conservator determine the most effective method of removing the overpaint from the grained doors and revealing the graining below, and perform this process. Restoration of the paint would be expensive and is not an urgent need, but if done correctly it would be a significant addition to the historic appearance of the house.

♦No action. The finishes on the exterior and window sills would continue to deteriorate, eventually causing damage to the wood below. The historic paint colors and composition would remain unknown, and future deterioration or refinishing may obscure them.

Carpenter latches have deteriorated enamel finishes and there is some corrosion of the moving parts.

Recommended Action:

♦Do not refinish. Lightly oil moving parts where needed.

Alternative Action:

♦Remove latches from doors, refinish enamel finish on boxes and clean and rebuild operating parts. Restoration would cause the loss of the historic finish on the latches. Rebuilding the latches would unnecessarily tamper with the original mechanisms.

♦No action. The latches will continue to corrode, but will essentially remain in their existing condition.

Out-Building Evaluation

Summer Kitchen

The summer kitchen has openings in the chimney and the masonry which allow birds and insects to nest in the building. Flight holes indicate that insect infestation may be causing deterioration of the wood.

Recommended Action:

♦Install screens over the interior of the vents in the brick walls. Install a chimney cap over the chimney which will prevent birds and insects from entering the building. Treat the wood with an insecticide to exterminate insect infestations.

Alternative Action:

♦No action. Birds and insects will continue to nest in the building, causing damage to the summer kitchen.

Moisture is seeping through the north wall and causing deterioration of the brick.

Recommended Action:

♦Point masonry on the exterior to stop moisture seepage. Replace deteriorated brick on the interior.

Alternative Action:

♦No action. The masonry will continue to seep through the wall and will cause deterioration of additional brick.

The wood ties between the plates are lifting out of the dovetail joints.

Recommended Action:

♦Drive the ties back down into the dovetails and secure in place.

Alternative Action:

♦No action. The ties will lift free of the plates and the plates will spread from the force of the rafters.

Barn

Mortar is washing out of the joints at the tops of the wall as a result of exposure to the weather. Some sections of the wall are collapsing as a result of deterioration.

Recommended Action:

♦Point the loose and open joints and rebuild the collapsed portions of the wall. Use a lime mortar, not a hard cement-based mortar, and match the color of the original mortar. Rake back the joints from the face of the stone so the joints match the original joints and so the wall has the texture which is typical of this type of masonry. Protect the top of the wall with a mortar bed. Keep the ground around and within the stone foundation clear of plant materials.

Alternative Action:

♦Point loose and open joints. Provide no special protection for the top of the wall. This alternative would require regular pointing of the masonry, or it will deteriorate from exposure to the weather.

♦Point loose and open joints. Protect the top of the wall with a mortar bed and slate coping. A slate coping provides better protection to the stone masonry, but it is not historic fabric, and may cause confusion in interpretation in the future.

♦No action. Deterioration of the walls will continue, and the walls will collapse.

Only the foundation remains of the historic barn.

Recommended Action:

♦No action, other than maintenance of the remaining stone foundation (see below). This would be the low cost alternative, and there would be no danger of building a new barn which was not historically accurate.

Alternative Action:

♦Restore the timber-frame barn, based on photographs, historic descriptions, and any other historic documentation which can be found. Study existing local barns from the same period and of the same style for typical details. A restoration of this type should strive for a high level of historical accuracy and quality craftsmanship. Restoration of the Sherrick barn would be a very expensive project, and there is the risk of building something which is historically inaccurate, however careful the planning.

COST ESTIMATE

Recommended Actions

♦Replace deteriorated flooring and joists at the basement floor. Treat wood antifungal preservative and provide ventilation and dehumidification to sub-basement and basement.	$10990
♦Treat all wood in the storage area with insecticide such as Bora-Care. Include loose, non-structural wood.	$597
♦Remove the storm sash from the basement pantry and store them in a location which has not deteriorated.	$293
♦Remove the non-historic balustrade above the porch, the non-historic flat roof and all the decayed wood. Replace all the decayed wood, and replace the roof with a hip roof to match the original historic roof. Do not replace the non-historic baluster.	$8123
♦Immediately remove the shutters from the top of the collar ties and store them in other locations in the house which have an adequate live load capacity.	$293
♦Replace the existing electric resistance heaters with new, energy-efficient heaters.	$2216
♦Replace existing electrical panels with new panels which have proper clearances, spare breakers and capacities, and proper identification, and either limit the use of electricity in the house or upgrade the capacity of the system.	$2405
♦Run a buried electrical line to the house.	$3009
♦Install fire extinguishers in strategic locations throughout the house.	$718
♦Remove the stick blocking the egress door on the 1st floor and replace it with a lock which would be historically compatible and which could be operable from the interior.	$378
♦Install a path from the west entry walk around the north end of the house to a ramp to the east door of the entry hall.	$3091
♦Survey the house for lead-based paint.	$125
♦Survey the house for asbestos. Follow proper procedures for abatement of asbestos-containing material.	$150

COST ESTIMATE (CONT'D)

♦Monitor the basement and sub-basement for radon.	$150
♦Perform a paint analysis on all the painted finishes of the house.	$5200
♦Develop a plan for restoring the missing site features to the Sherrick Farmstead. Include the locations and species of trees, shrubs and other plantings, the designs and locations of fencing, designs for the missing stone outbuilding and for the shed on the side of the summer kitchen, and plans for other missing features.	
Historic landscape design	$5086
Trees, shrubs, other plantings	$775
Fencing, 755 linear fee of picket fencing	$13,137
Total	$18,998

Summer Kitchen

♦Install screens over the interior of the vents in the brick walls. Install a chimney cap over the chimney which will prevent birds and insects from entering the building. Treat the wood with an insecticide to exterminate insect infestations.	$655
♦Point masonry on the exterior to stop moisture seepage. Replace deteriorated brick on the interior.	$830
♦Drive the ties back down into the dovetails and secure in place.	$293

Barn Foundation

♦Point loose and open joints. Protect the top of the wall with a mortar bed.	$17280

TOTAL FOR ALL RECOMMENDED WORK $75794

POSSIBLE AREAS OF FURTHER RESEARCH

ARCHITECTURAL INVESTIGATION

- Surveys and studies of similar buildings constructed during the same era or in the same region.

  Knowledge of the architectural traditions of the region and era would help in understanding the historical context of the Sherrick House. This type of study could be as focused as a study of 1830's houses on the Antietam Battlefield, or as broad as a study of early 19th century American architecture. The most important areas to study would be western Maryland and adjacent areas of Pennsylvania. Studies of regional architecture which have been performed by local or state historical societies, students of state and regional history and architecture, and organizations such as the Historic American Building Survey should be collected as part of the resources which are available at the Antietam Visitor Center Library.

- Photographic documentation of the Antietam Battlefield at the time of the Battle of Antietam.

  The ninety-five photographs taken by Alexander Gardner and James F. Gibson following the Battle of Antietam form an invaluable documentary record of the battlefield. These photographs have been studied and catalogued in William Frassanito's book Antietam, The Photographic Legacy of America's Bloodiest Day. Original prints of these photographs should be part of the holdings of the Antietam Visitor Center Library and should be available to researchers. Prints of the photographs in the Library of Congress collection are available at a nominal cost, and the photographs in the collections of other institutions are probably easily acquired, as well. The cost of collecting these photographs for the library could be included as part of a cultural landscape study of the battlefield.

- Reconstruction of the burned barn.

  The destruction of the Sherrick barn by fire in 1985 was a loss to the historic context of the Sherrick Farmstead. Reconstruction of the barn would provide additional understanding of the use of the farm and its role in the Battle of Antietam. Reconstruction of the barn could range in scope from collecting historic photographs and descriptions, to producing reconstruction drawings, to rebuilding the barn and the existing foundation.

HISTORICAL INVESTIGATION

Historic questions which would be worthwhile to pursue regarding the Sherrick House include:

- Who were the Sherricks? Where did they come from, what did they do at the farm?
- What did Joseph and Sarah Sherrick do during and after the battle?
- What took place at and around the farm during the battle?
- How were the house and barn used as a hospital after the battle?
- Who lived in the house between 1862 and 1964? Who was the Dorsey family, and how did they live?

ARCHEOLOGICAL INVESTIGATION

- Locate and determine size and use of Civil War era outbuildings.
- Locate Civil War era site features such as orchards, gardens and fences.
- Did the Sherrick Farm have other buildings on the site which predate the Sherrick House? Was there a previous house on the site of the existing house?

CULTURAL LANDSCAPE STUDY

- Documentation of existing site conditions and restoration of historical landscape. See recommendations.

PAINT ANALYSIS

- Analyze the paint of the mouldings, fireplaces, wood floors, plaster, windows, doors and exterior woodwork to determine the original color scheme of the house. This analysis should be performed before any painting or other refinishing is done to the house.

Endnotes

[1] Charles H. Ourand, "Map of the Battlefield of Antietam." Gettysburg, Pa: Chief of Engineers, U.S. Army, 1904. These fourteen maps show the Antietam Battlefield at different times during the day of the battle. Maps #10-14 show the battle action which took place around the Sherrick Farm, between noon and 5:30 p.m. on September 17, 1862.

[2] William A. Frassanito, Antietam, the Photographic Legacy of America's Bloodiest Day (New York: Charles Scribner's Sons, 1978), p. 244-248. Frassanito's explication of the Gardner photograph of the Sherrick Farm focuses on the troop movement and fighting which took place on and around the Sherrick Farm. For a thorough general account of the Battle of Antietam, see Stephen W. Sears, Landscape Turned Red - The Battle of Antietam (New York: Ticknor & Fields, 1983).

[3] Captain Calvin D. Cowles, "Map of the Battle of Antietam, Showing the Signal Stations and Hospitals", Atlas to Accompany the Official Records of the Union and Confederate Armies, plate XXVIII, no. 2 (Washington, D.C.: Government Printing Office, 1899), rpt. New York: Thomas Yoseloff, Inc., 1958. The Sherrick House is indicated as a hospital on the Cowles map, but it is not mentioned as one of the major hospitals in John W. Schildt, Antietam Hospitals (Chewsville, Md.: Antietam Publications, 1987).

[4] The transcripts from the 1876 hearings regarding the claims by Joseph Sherrick's estate for the losses incurred during the occupation by Union troops are reprinted in Francis F. Wilshin, "Historic Structures Report, Architectural Data Section, Survey Report for Piper Farm, Dorsey Farm, Spielman Farm," (Division of History, Office of Archeology and Historic Preservation, National Park Service, U.S. Department of the Interior) August, 1969, p. 256-300.

[5] Frassanito, p. 244-248 says that they fled their farm when it became clear that a battle was to be fought in the area. Frassanito says that Sherrick hid his life savings of three thousand dollars of gold in a stone wall at the farm, and returned after the battle to retrieve it. He and his wife moved to the town of Boonsboro. John W. Schildt, Drums Along the Antietam (Parsons, W. Va.: McClain, 1972), p 183-187, says that the Sherrick House was unoccupied at the time of the battle.

[6] Leonard Emmert's involvement as a tenant farmer at the Sherrick Farm is described in Emmert's own words in his testimony at the hearing of Joseph Sherrick's estate's claim for losses during the battle. The text of Emmert's testimony is reprinted in Francis F. Wilshin, Historic Structures Report, History Data, Antietam National Battlefield Site, Maryland: Mumma Farm-"Spring House", Piper Farm-"Slave Quarters", Sherrick Farm-"Smoke House" (Division of History, Office of Archeology and Historic Preservation, National Park Service, U.S. Department of the Interior, 1970), p. 265-267 and 286-290.

[7] Reprinted in John W. Schildt, Drums Along the Antietam, (Parsons, W. Va.: McClain, 1972) p. 186-187.

[8] A complete chain of title is in Wilshin, p. 250.

[9] The entire text of the 1796 deed is reproduced in Francis F. Wilshin, "Historic Structures Report, Architectural Data Section, Survey Report for Piper Farm, Dorsey Farm, Spielman Farm," (Division of History, Office of Archeology and Historic Preservation, National Park Service, U.S. Department of the Interior) August, 1969, p. 301-304.

[10] A rug can be seen on the floor in a 1965 interior photograph of the stair hall, (ANTI {P} 07A317 {1965}).

[11] Henry C. Mercer, The Dating of Old Houses (1923; rpt. Bucks County, Pennsylvania: Bucks County Historical Society, 1976) p. 16.

[12] Streeter, Donald, "Early American Wrought Iron Hardware: H and HL Hinges, Together with Mention of Dovetails and Cast Iron Butt Hinges" (Bulletin of the Association of Preservation Technology, Vol. V, No. 1, 1973), p. 49.

[13] Clem Labine, "How to Research and Date Your Old House," The Old House Journal, (October, 1976), p. 11.

[14] Anderson, Dean L. "A Carpenter's Lock from Minnesota's Historic Fort Snelling", Bulletin of the Association for Preservation Technology, Vol. IX, No. 4, 1977, p. 67-68.

[15] Cotton, J. Randall, "Knobs & Latches", Old House Journal, Nov./Dec. 1987, p. 39.

[16] Cotton, J. Randall, "Knobs & Latches", Old House Journal, Nov./Dec. 1987, p. 39.

[17] Francis F. Wilshin, "Historic Structures Report, Architectural Data Section, Survey Report for Piper Farm, Dorsey Farm, Spielman Farm," (Division of History, Office of Archeology and Historic Preservation, National Park Service, U.S. Department of the Interior) August, 1969. Wilshin refers to the building as a "smokehouse," using quote marks at the word, but otherwise not questioning the name or use of the building. Smokehouses are typically completely enclosed, without chimneys, windows, or venting. Summer kitchens, however, have all of these features, and are typically in the configuration seen on this building at the Sherrick Farmstead.

[18] See the 1986 HABS drawings of the Joseph Sherrick Farm site plan and the summer kitchen. Wilshin's Historic Structure Report also has photographs from the late 1960's and additional details from the summer kitchen.

[19] Library of Congress catalog number 405927 LCB815-598. The original photo is a stereo pair. The left image of the stereo pair is reproduced in Frassanito, p. 245.

[20] Wilshin, p. 247. The complete text of Joseph Sherrick's estate's claim is reproduced in Wilshin, p. 277-280. This document provides at least a partial inventory of Sherrick's possessions at the time of the Battle of Antietam.

[21] Sharon C. Park, "The Repair and Replacement of Historic Wooden Shingle Roofs," Preservation Briefs, 19, (Washington, D.C., n.d.), p. 4.

[22] Wilshin, p. 247.

[23] Plant identification is from Wilshin, p. 252.

[24] Charles H. Ourand, "Map of the Battlefield of Antietam," (Gettysburg, Pa: Chief of Engineers, U.S. Army, 1904).

[25] See "Historic Photographs" appendix. Photograph numbers in the configuration such as (ANTI {P} 07A281 {1922}) refer to the photograph index number from the Antietam National Battlefield Library. The final four digits of these index numbers indicates the year the photograph was taken. These numbers will be indicated in the text.

[26] See photographs of the summer kitchen in 1969, in Wilshin, p. 320-325.

[27] See Gardner's photographs of the battlefield in Frassanito, p. 110, 127, 130, 134 and others.

[28] A wood roof can be seen in pictures of the Sherrick House in the 1978 Jim Reber slide collection at the Antietam Visitors' Center Library.

[29] "How to Meet the New HUD/FHA Minimum Property Standards Thermal Requirements" (Toledo, Ohio: Owens-Corning Fiberglass Corporation, 1979), p. 3.

[30] Lester B. Lave and Arthur C. Upton, Toxic Chemicals, Health and the Environment (Baltimore: Johns Hopkins University Press, 1987), p. 9.

[31] Lave and Upton, p. 12.

PHOTOGRAPHS

EXISTING CONDITIONS PHOTOGRAPHS

Each of the following existing conditions photographs of the Sherrick House has a key on the facing page which indicates the locations of the important features which are shown. Refer to the text for complete descriptions of the building's features.

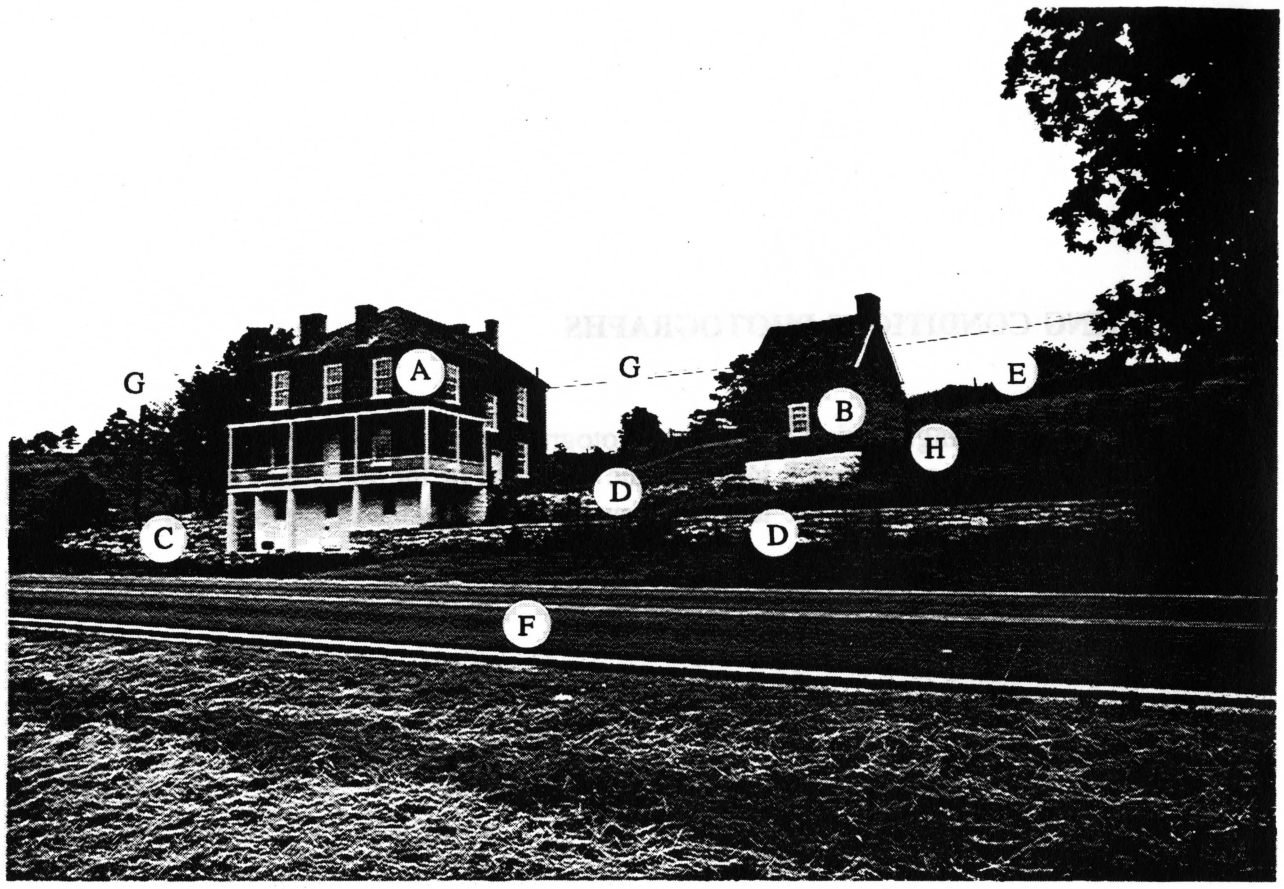

Photo 1
Sherrick Farmstead, view from the south. View is similar to the Gardner view of the farmstead, taken September 21, 1862 (see Historic Photo 1).

A) Sherrick House.
B) Sherrick summer kitchen.
C) Original site walls.
D) Site walls rebuilt 1974.
E) Sherrick Barn foundation ruins.
F) Burnside Bridge Road Bypass.
G) Power pole and power lines.
H) Location of demolished outbuilding and foundation wall.

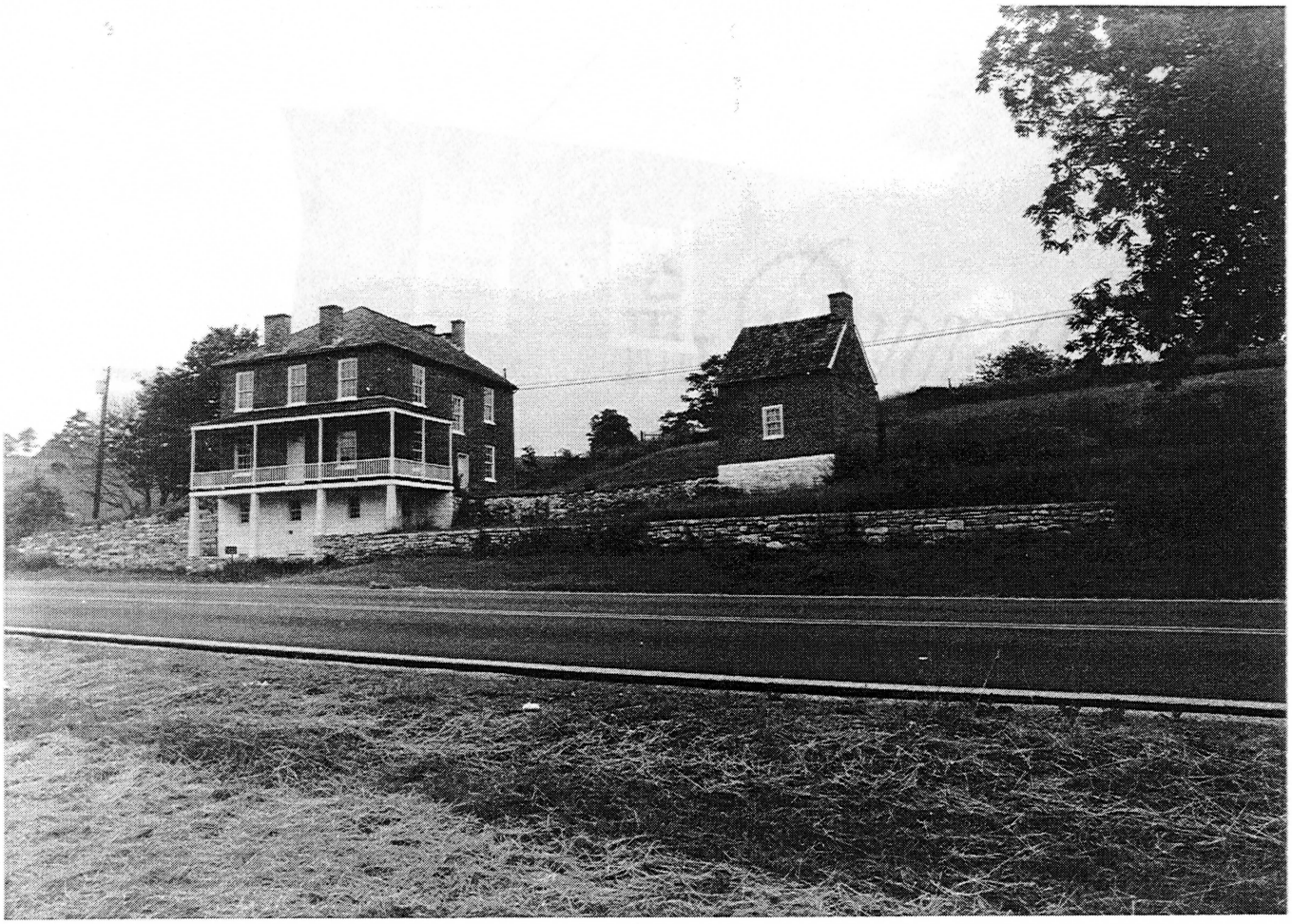

Photo 1
Sherrick House, view of farmstead from the south. View is similar to the Gardner view of the farmstead, taken September 21, 1862 (see Historic Photo 1).
Photographed by David Amundson.
May, 1994



Photo 2
Sherrick House, west elevation.

A) Entry porch, see Photos 3, 4, 5 and 6.
B) Typical double-hung wood windows, see Photo 9.
C) Electric line and meter, installed before 1958.
D) South porch.
E) Stone foundation.
F) Flemish bond brick masonry, typical, west elevation.
G) Wire fencing.

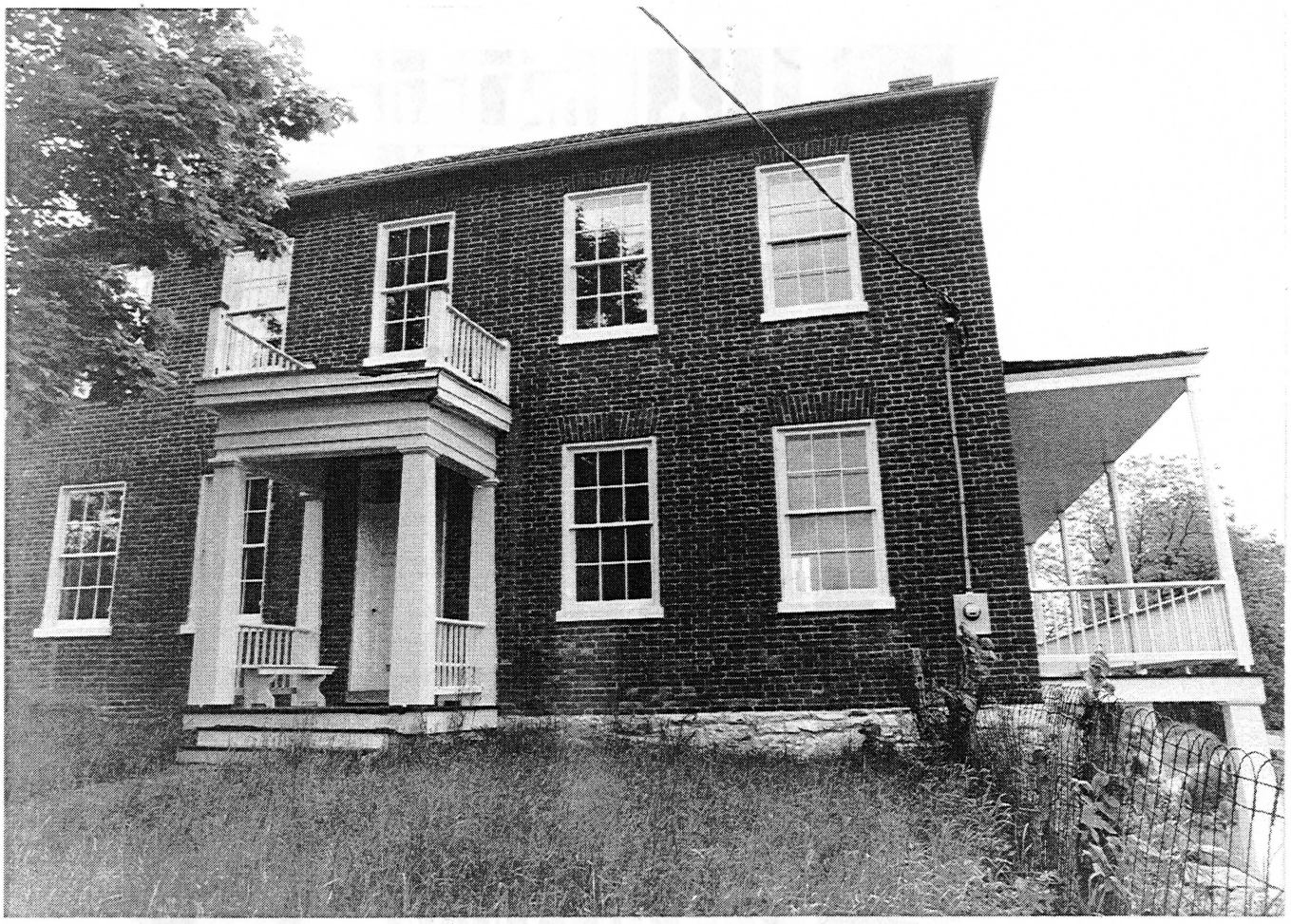

Photo 2
Sherrick House, west elevation.
Photographed by David Amundson.
May, 1994

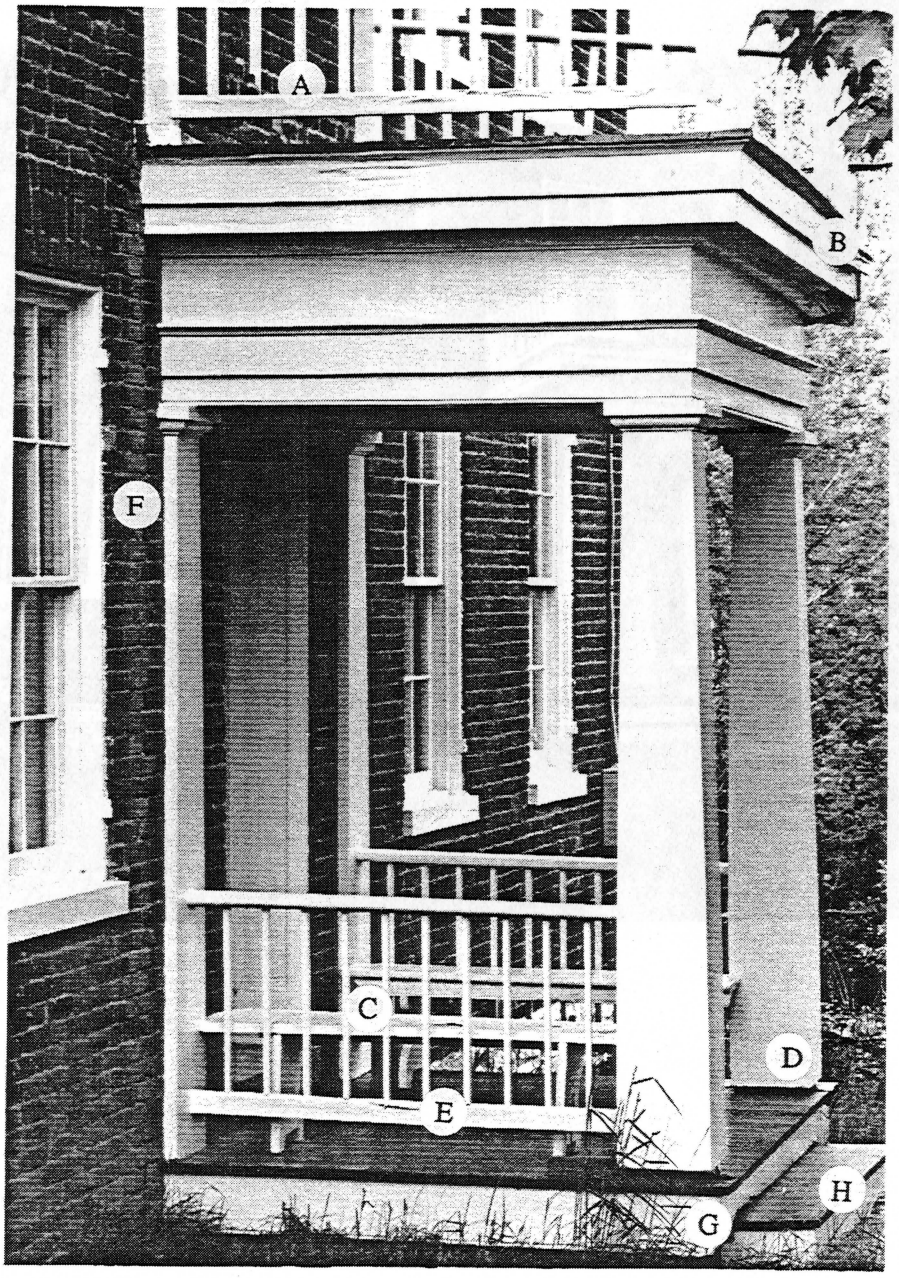

Photo 3
Sherrick House, entry porch from the north.

A) Porch balustrade added by NPS after 1980.
B) Deterioration at wood cornice.
C) Wood benches.
D) Wood column, on base bracket which is settling into deteriorated wood decking.
E) Split bottom rail.
F) White stain from paint runoff on brick masonry (typical both sides of porch).
G) Decaying skirt board.
H) Loose and decaying steps.

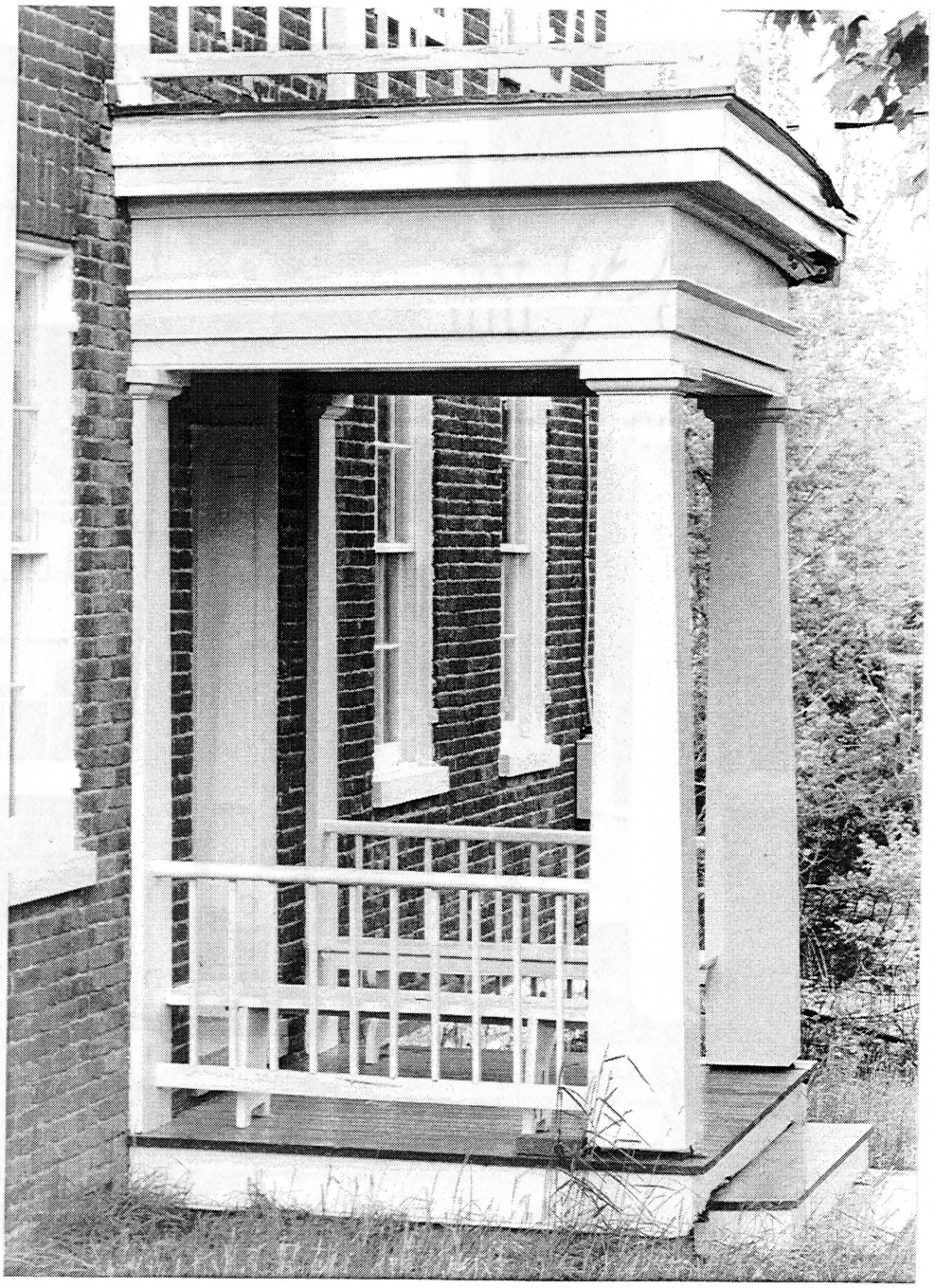

Photo 3
Sherrick House, entry porch from the north.
Photographed by David Amundson.
May, 1994

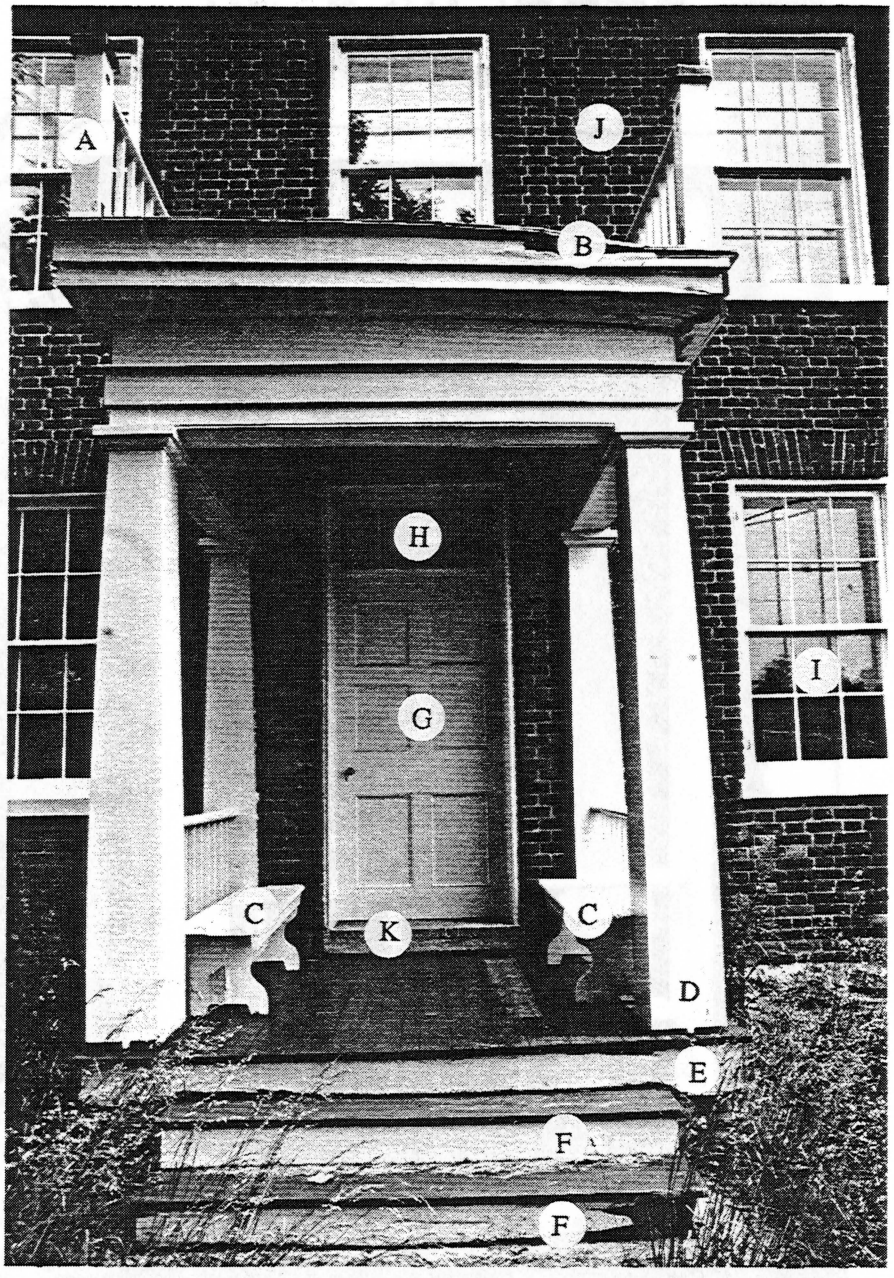

Photo 4
Sherrick House, entry porch, elevation from the west.

A) Porch balustrade added by NPS after 1980.
B) Deterioration at wood cornice (see Photo 5).
C) Wood benches.
D) Wood column, on base bracket which is settling into deteriorated wood decking.
E) Decaying skirt board.
F) Loose and decaying wood risers.
G) Entry door with faceted panels.
H) Transom window.
I) Typical double hung wood window with flat arch and wood sill (see Photo 7).
J) Flemish bond brick masonry, typical.
K) Stone threshold.

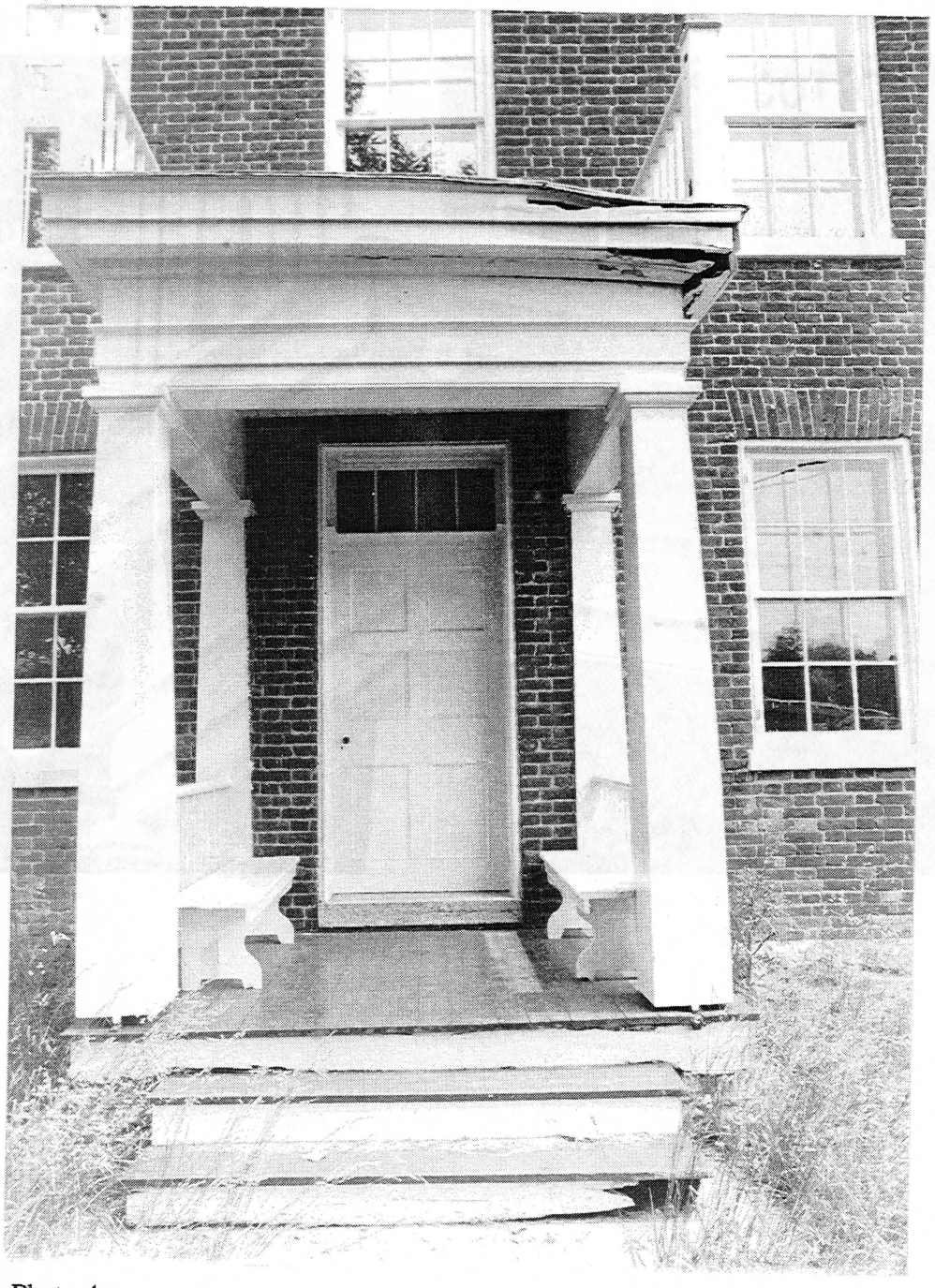

Photo 4
Sherrick House, entry porch elevation from the west.
Photographed by David Amundson.
May, 1994

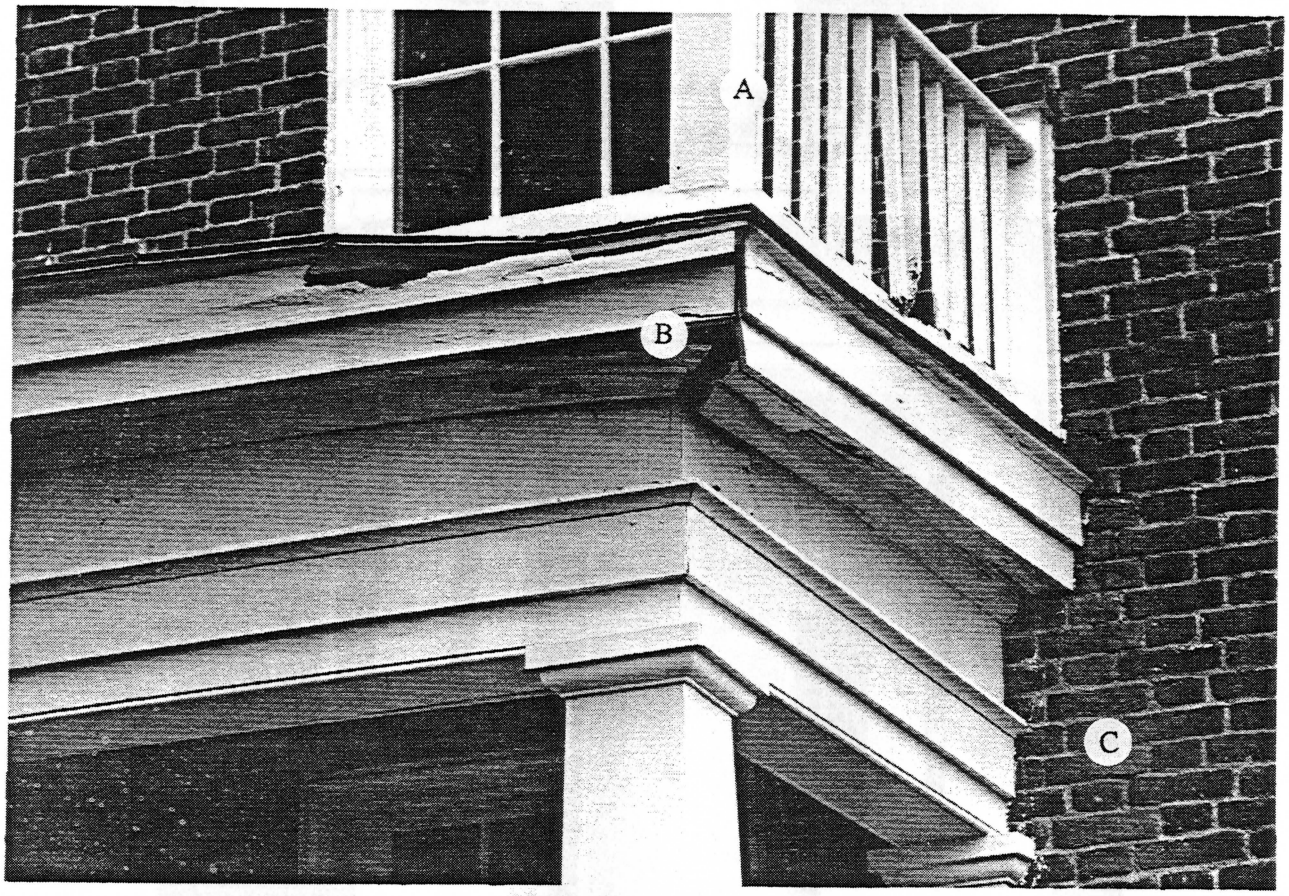

Photo 5
Sherrick House, detail of entry porch cornice, showing water damage at southwest corner of cornice.

A) Porch balustrade added by NPS after 1980. Corner post of balustrade has dropped into the deteriorated wood cornice and framing.
B) Severe deterioration of wood cornice.
C) White stain from paint runoff on brick masonry (typical both sides of porch).

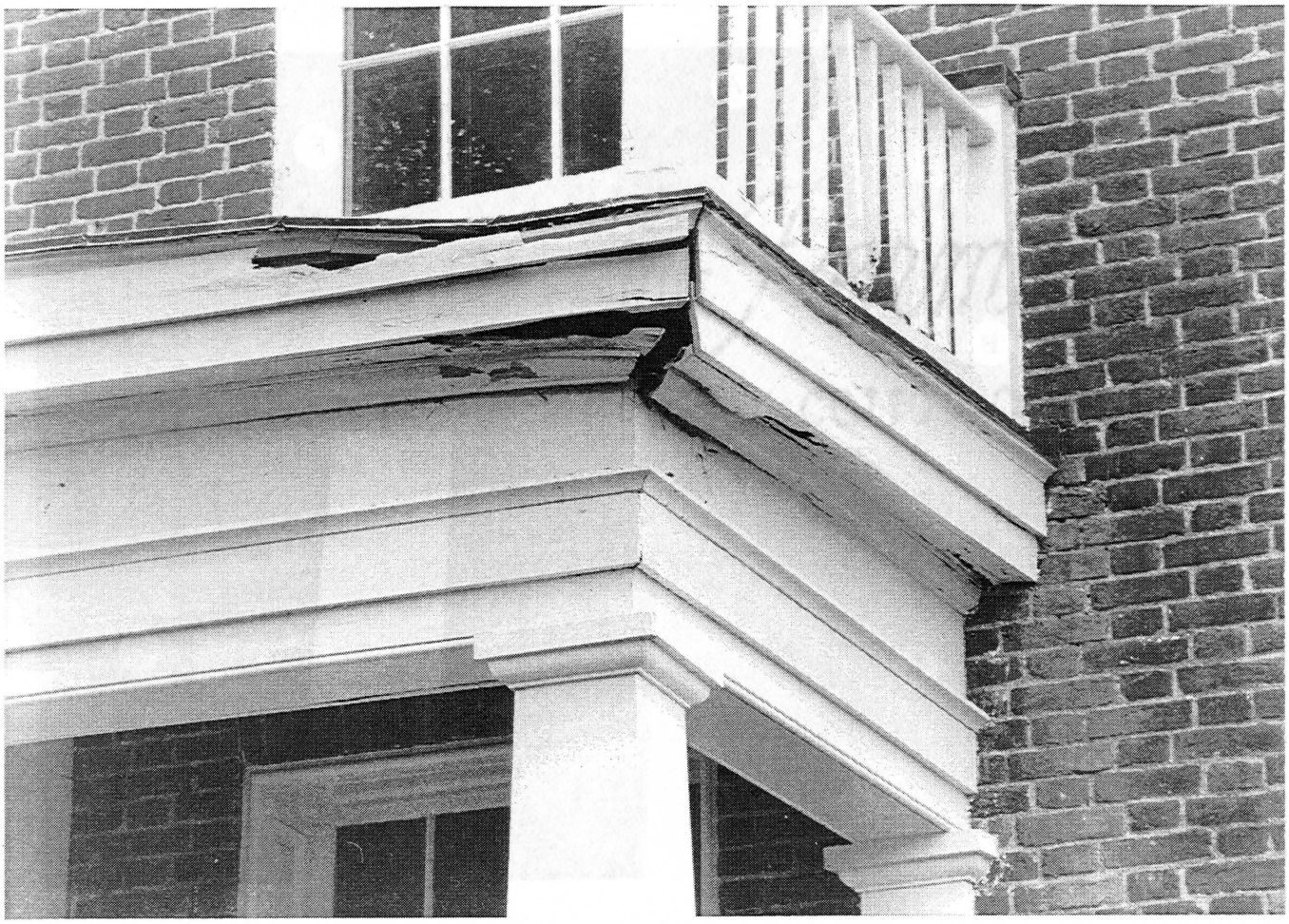

Photo 5
Sherrick House, detail of entry porch, showing water damage at southwest corner of cornice.
Photographed by David Amundson.
May, 1994

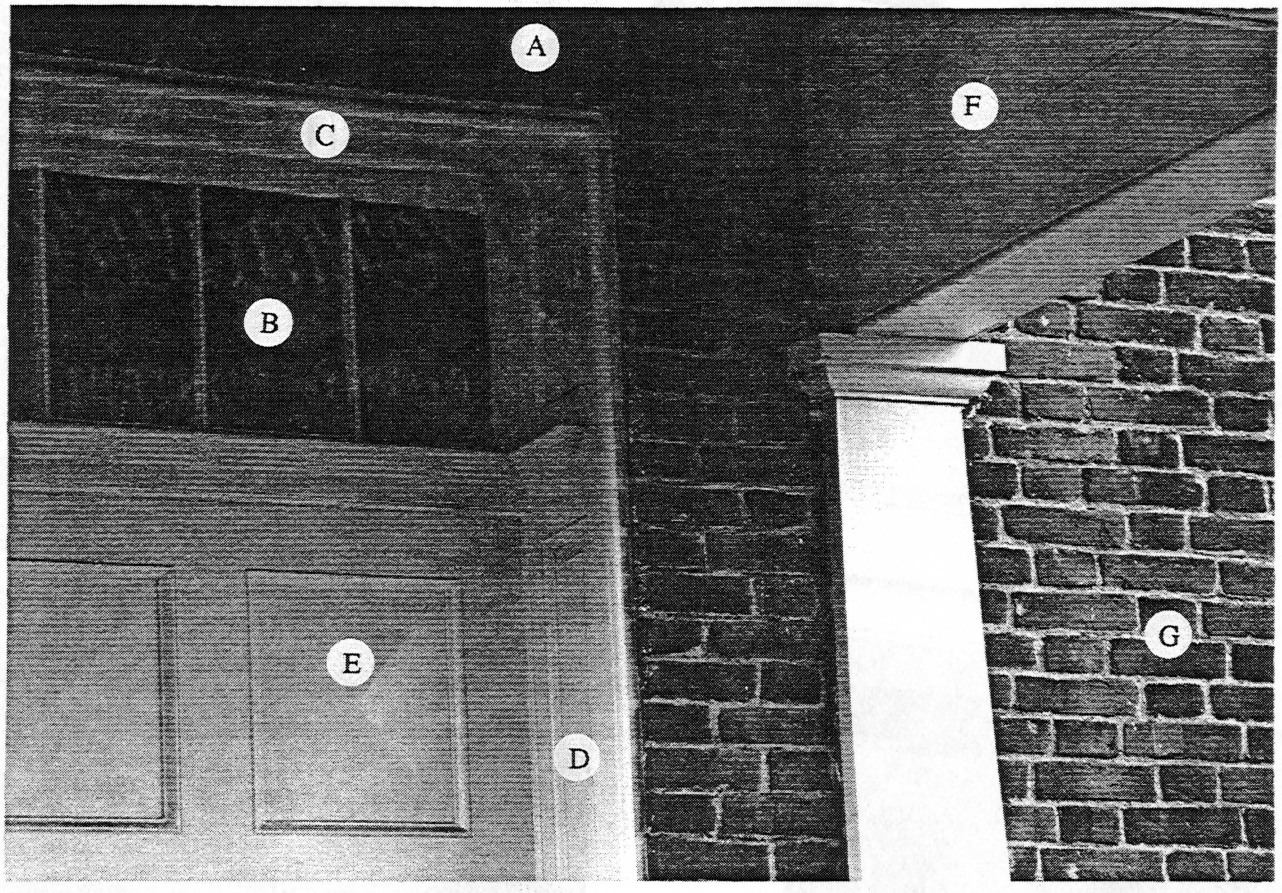

Photo 6
Sherrick House, detail of entry porch, showing transom window, top of pilaster and inside of cornice.

A) Flat brick arch over door.
B) Transom window.
C) Panelled head.
D) Panelled jamb.
E) Prismatic door panel.
F) Inside of porch entablature, with beaded boards.
G) Wood pilaster at wall.
F) White stain from paint runoff on brick masonry (typical both sides of porch).
G) Flemish bond brick masonry, typical.



Photo 6
Sherrick House, detail of entry porch, showing transom window, top of pilaster and inside of cornice.
Photographed by David Amundson.
May, 1994

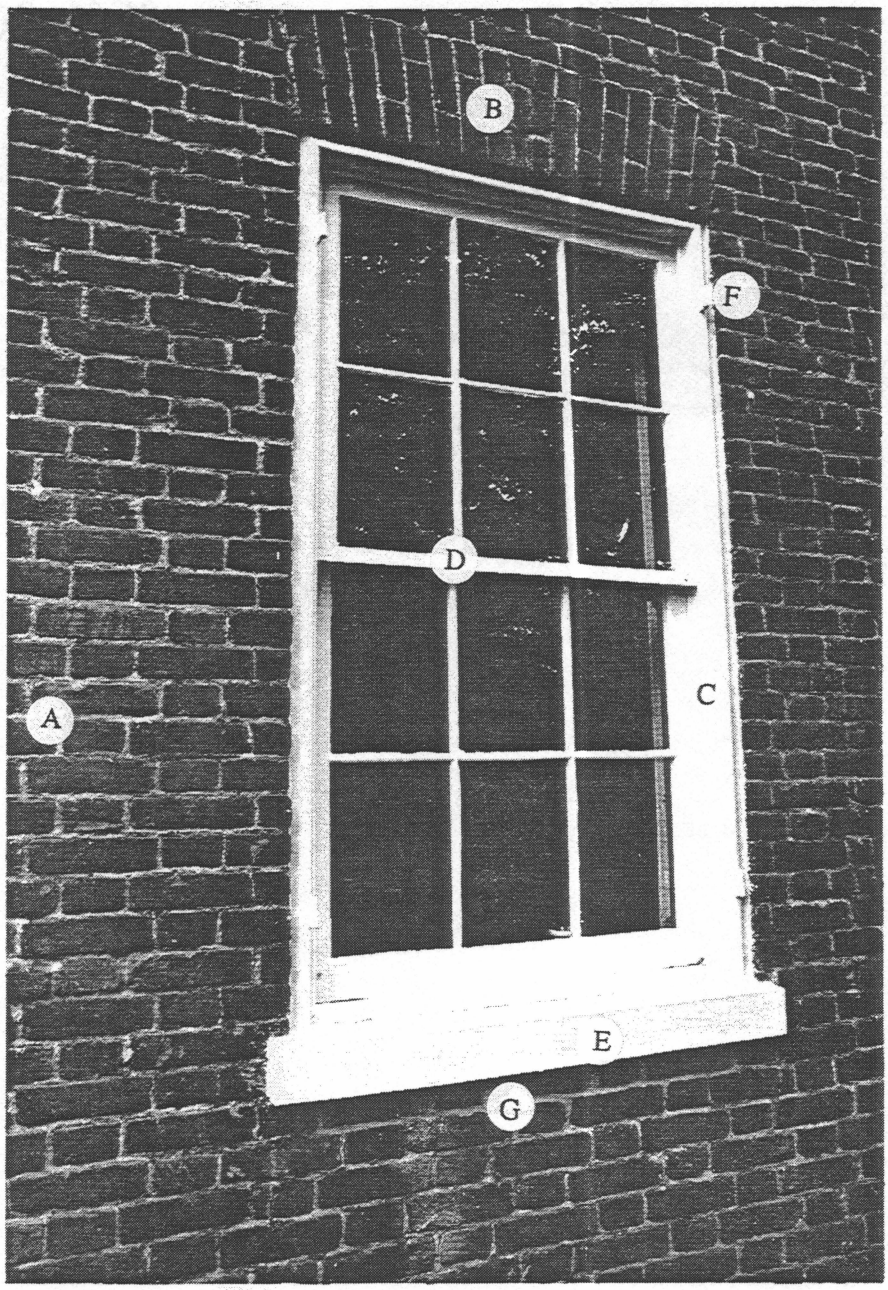

Photo 7
Sherrick House, typical 1st floor window (north window on west elevation).

A) Flemish bond brick masonry, typical.
B) Flat brick arch.
C) Wood window frame.
D) Six over six double hung wood sash.
E) Wood sill.
F) Shutter hinge, typical of four.
G) Mismatched pointing mortar below sill.

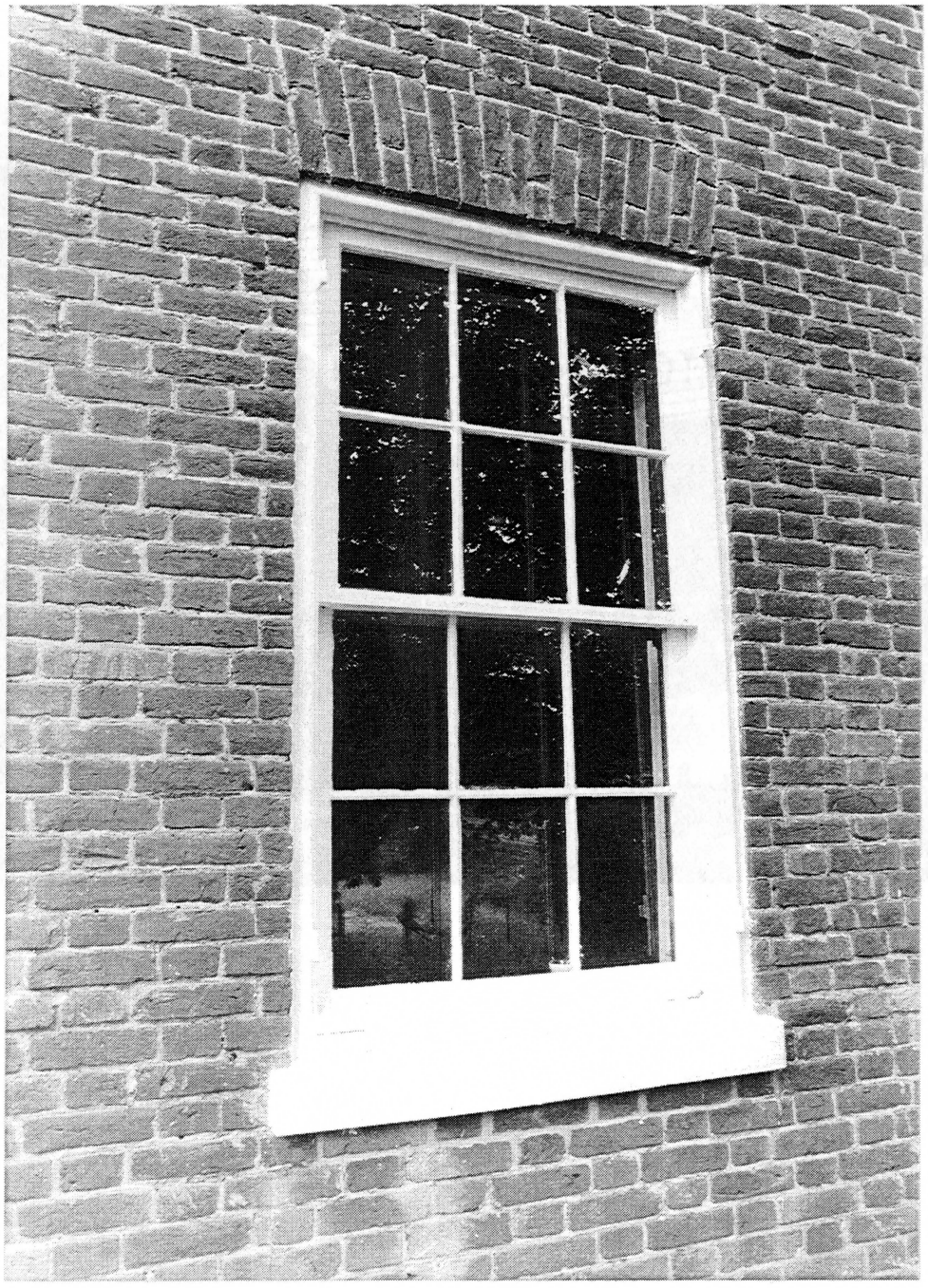

Photo 7
Sherrick House, typical 1st floor window (north window on west elevation).
Photographed by David Amundson.
May, 1994

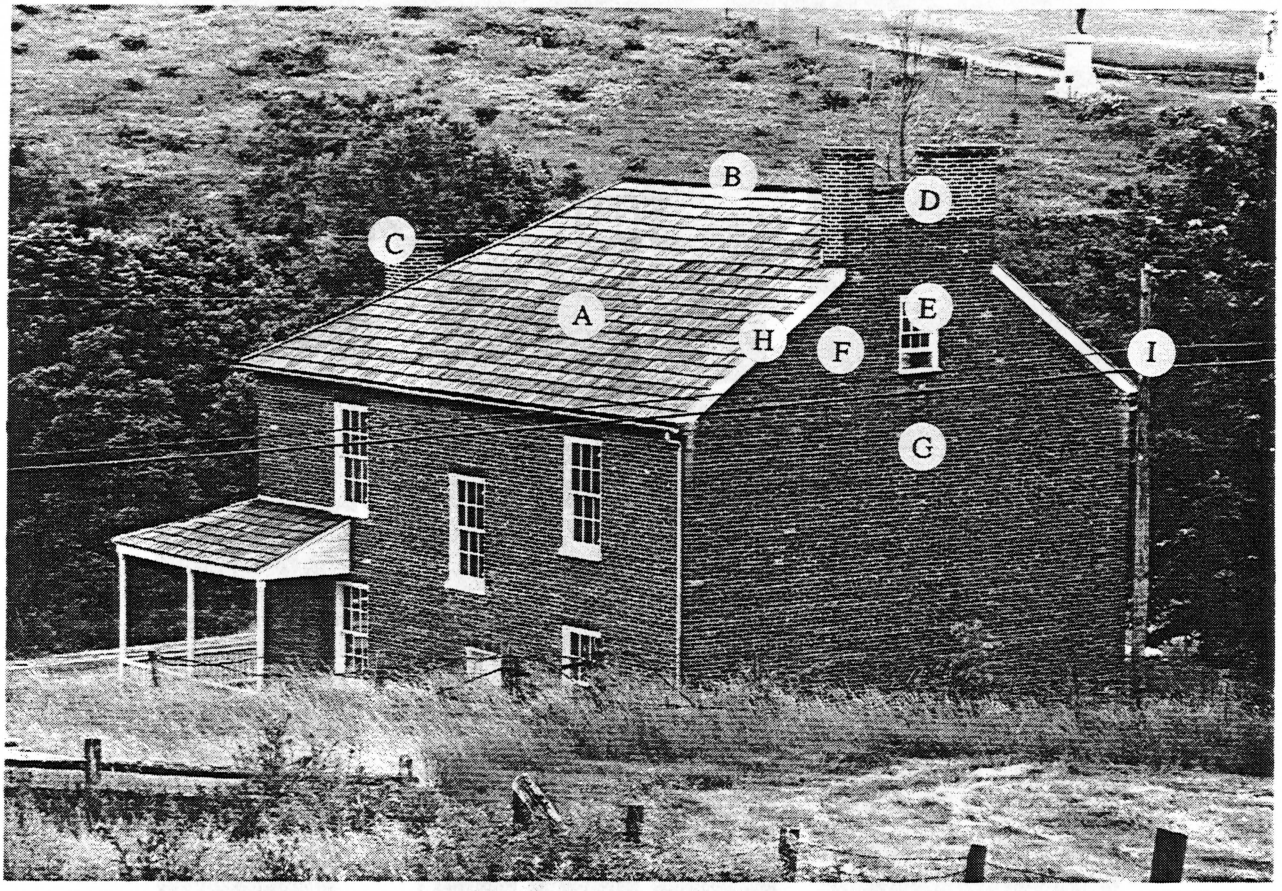

Photo 8
Sherrick House, north and east elevations, from the northeast.

A) Western red cedar shingle roof.
B) Lapped shingles at ridge.
C) South chimney.
D) North chimneys, with light-colored pointing mortar at tops.
E) Six over six double hung wood attic window.
F) Brick gable end at north elevation.
G) Metal "backwards S" masonry tie.
H) New wood rake board, typical.
I) Power pole and power line.

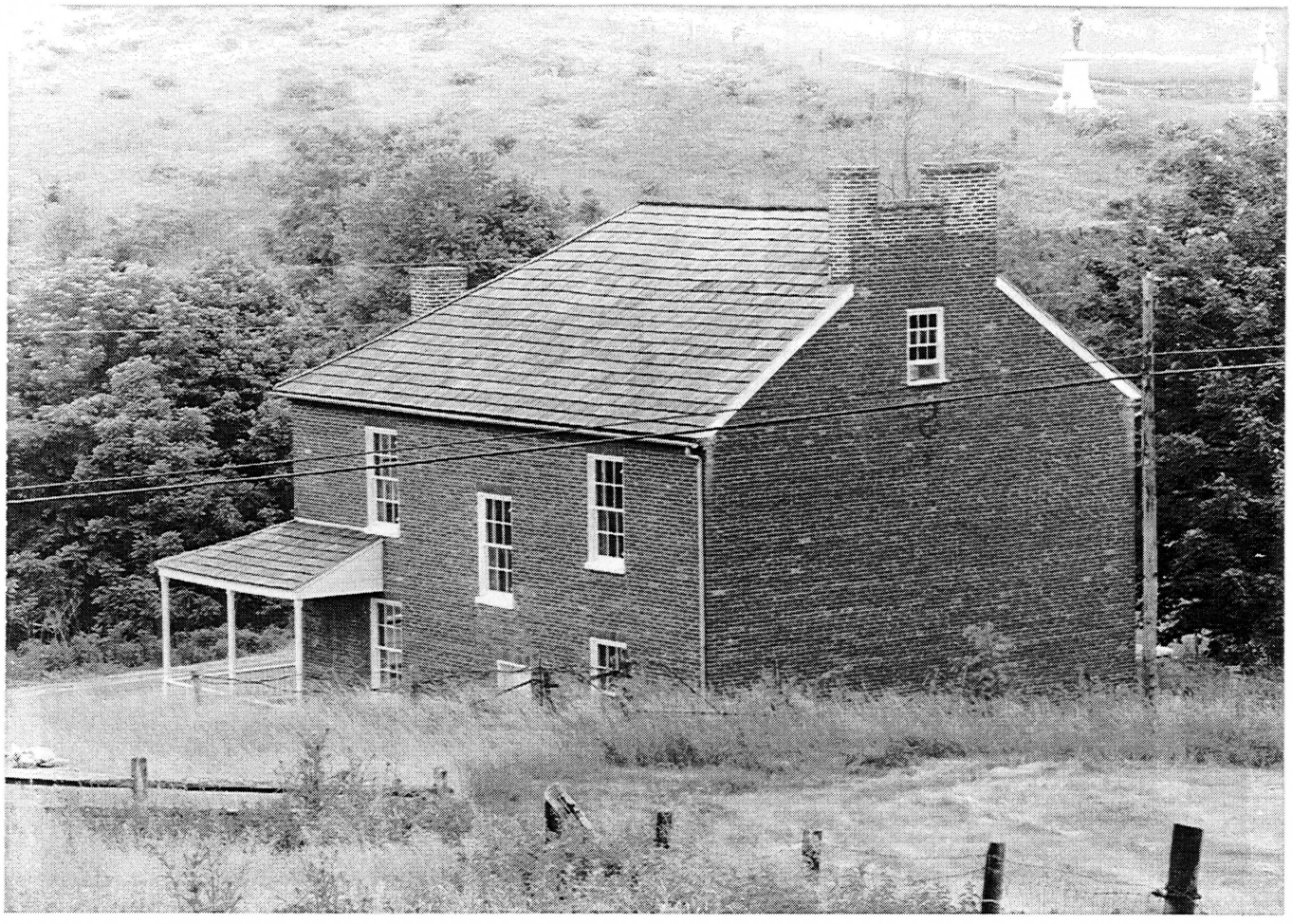

Photo 8
Sherrick House, north and east elevations, from the northeast.
Photographed by David Amundson.
May, 1994

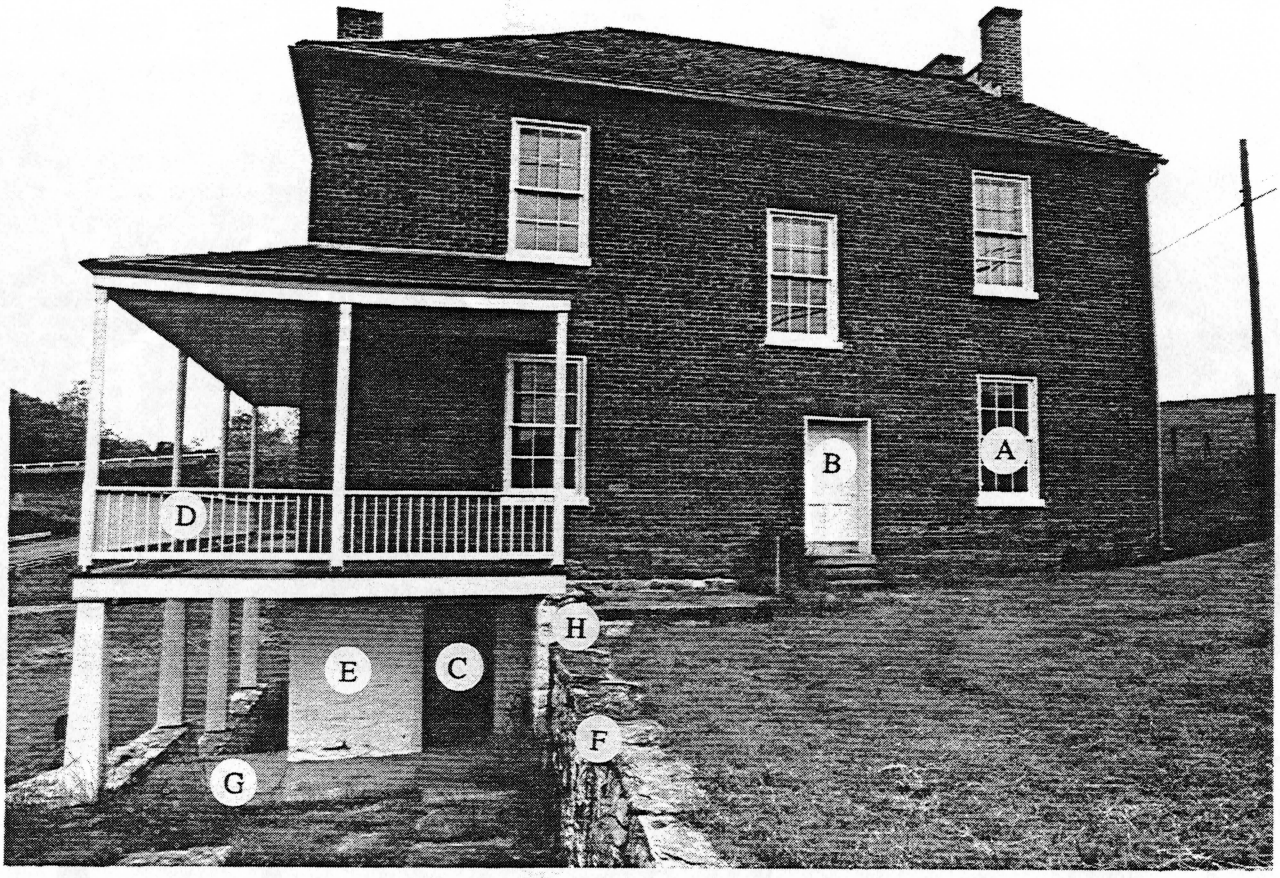

Photo 9
Sherrick House, east elevation.

A) Typical six over six double hung window.
B) East entry door to 1st floor stair hall.
C) East entry door to basement.
D) South porch.
E) Painted rubble stone foundation walls.
F) Rubble stone retaining wall.
G) Concrete landing at basement.
H) Exterior steps from basement level to 1st floor level.



Photo 9
Sherrick House, east elevation.
Photographed by David Amundson.
May, 1994

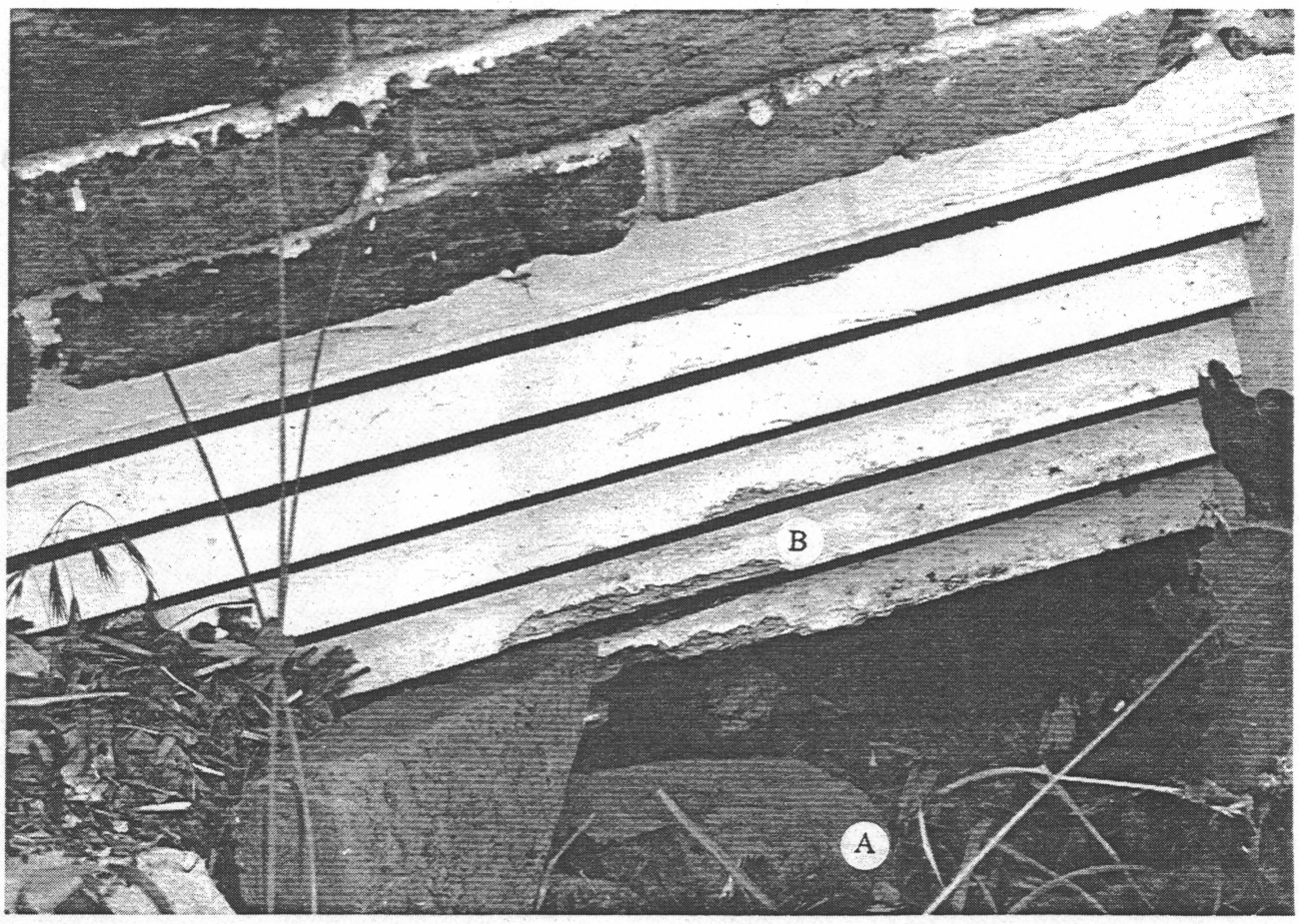

Photo 10
Sherrick House, exterior view of wood basement window bars, east elevation.

A) Dirt and stone fallen into the areaway for the basement window opening.
B) Wood window bars, chewed by groundhogs.



Photo 10
Sherrick House, exterior view of wood basement window bars, east elevation.
Photographed by David Amundson.
May, 1994

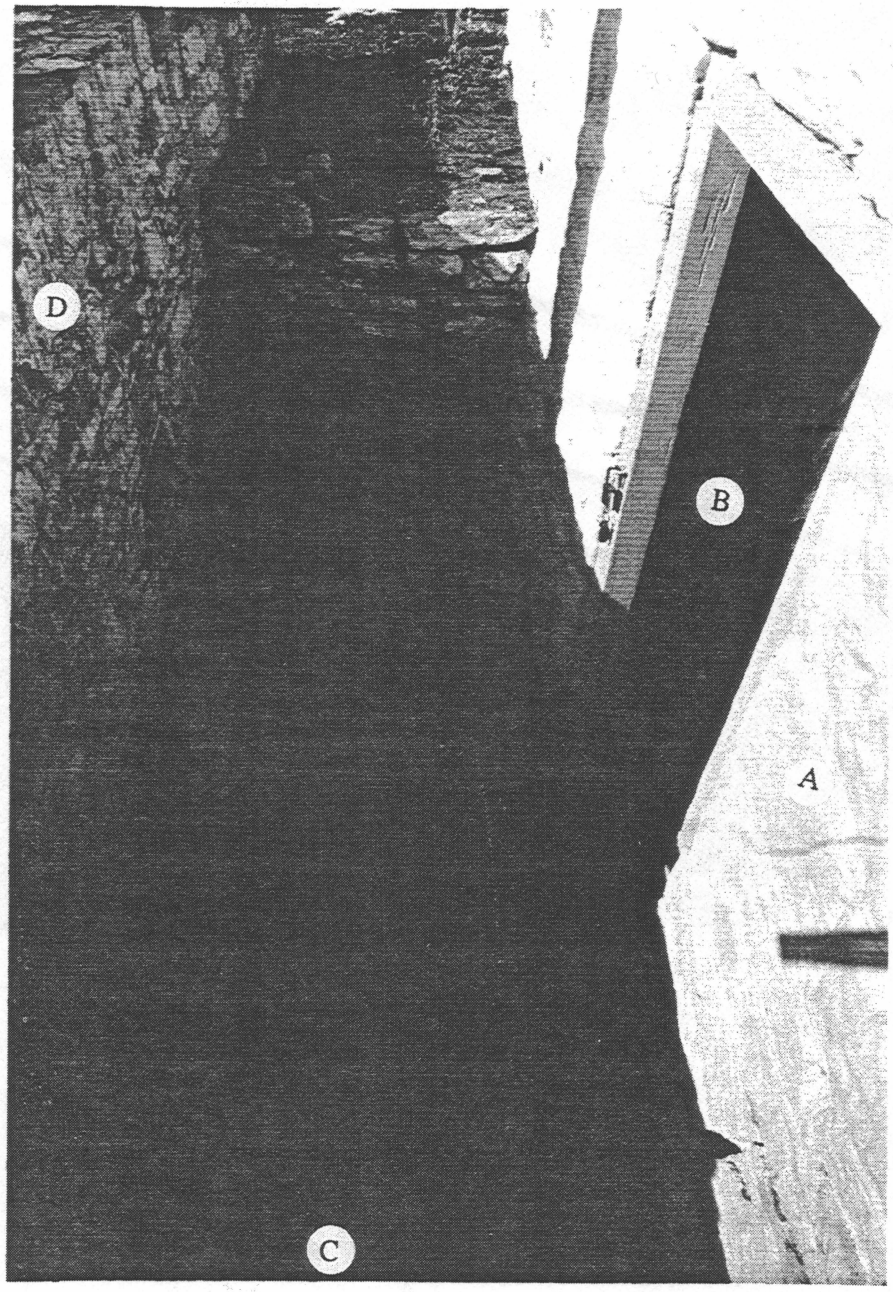

Photo 11
Sherrick House, south elevation looking down stairs to sub-basement door.

A) Painted rubble stone foundation wall.
B) Entry door to sub-basement.
C) Steps down to sub-basement.
D) Rubble stone retaining wall and base for south porch columns.

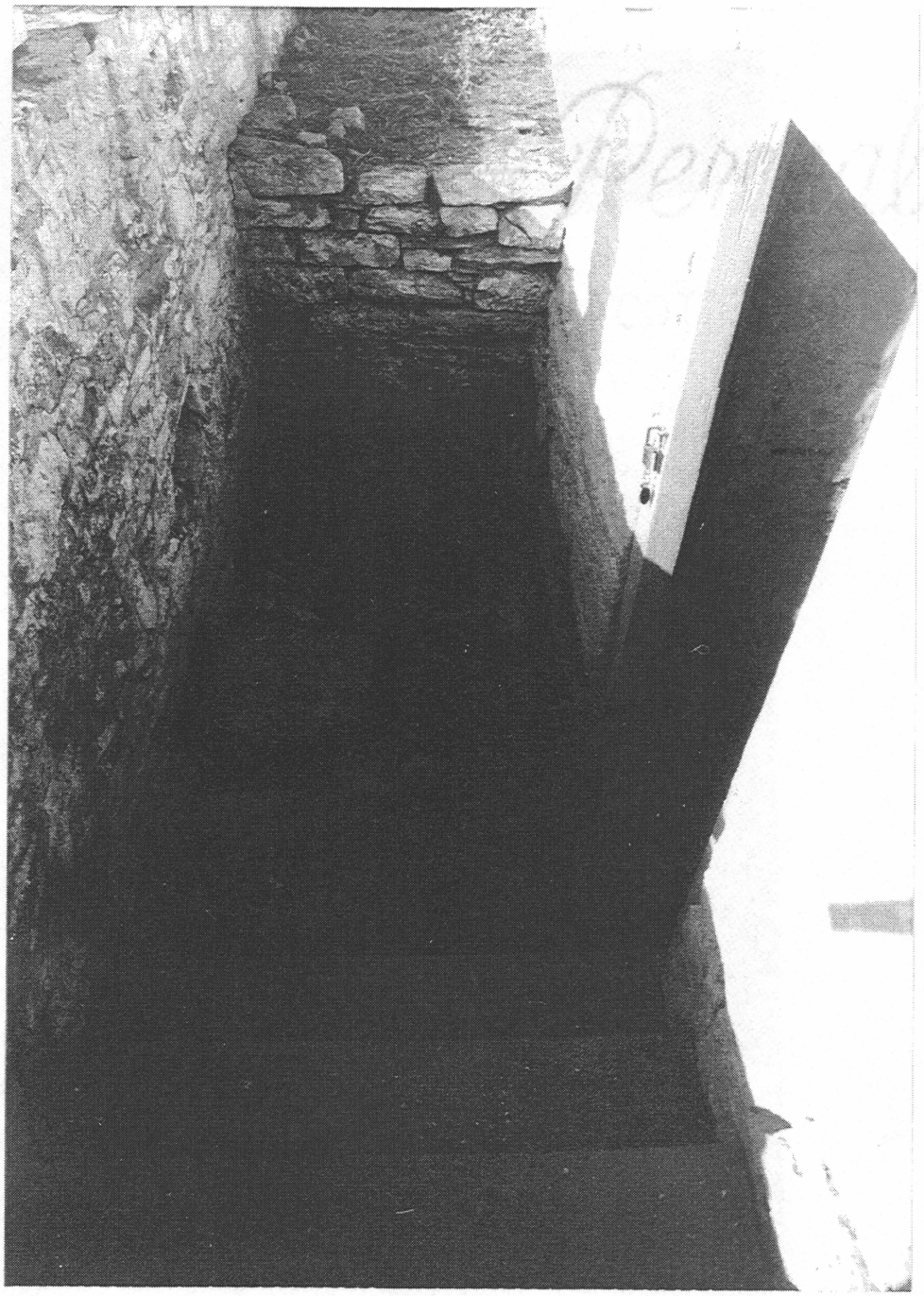

Photo 11
Sherrick House, south elevation looking down stairs to sub-basement door.
Photographed by Reed Black.
April, 1994

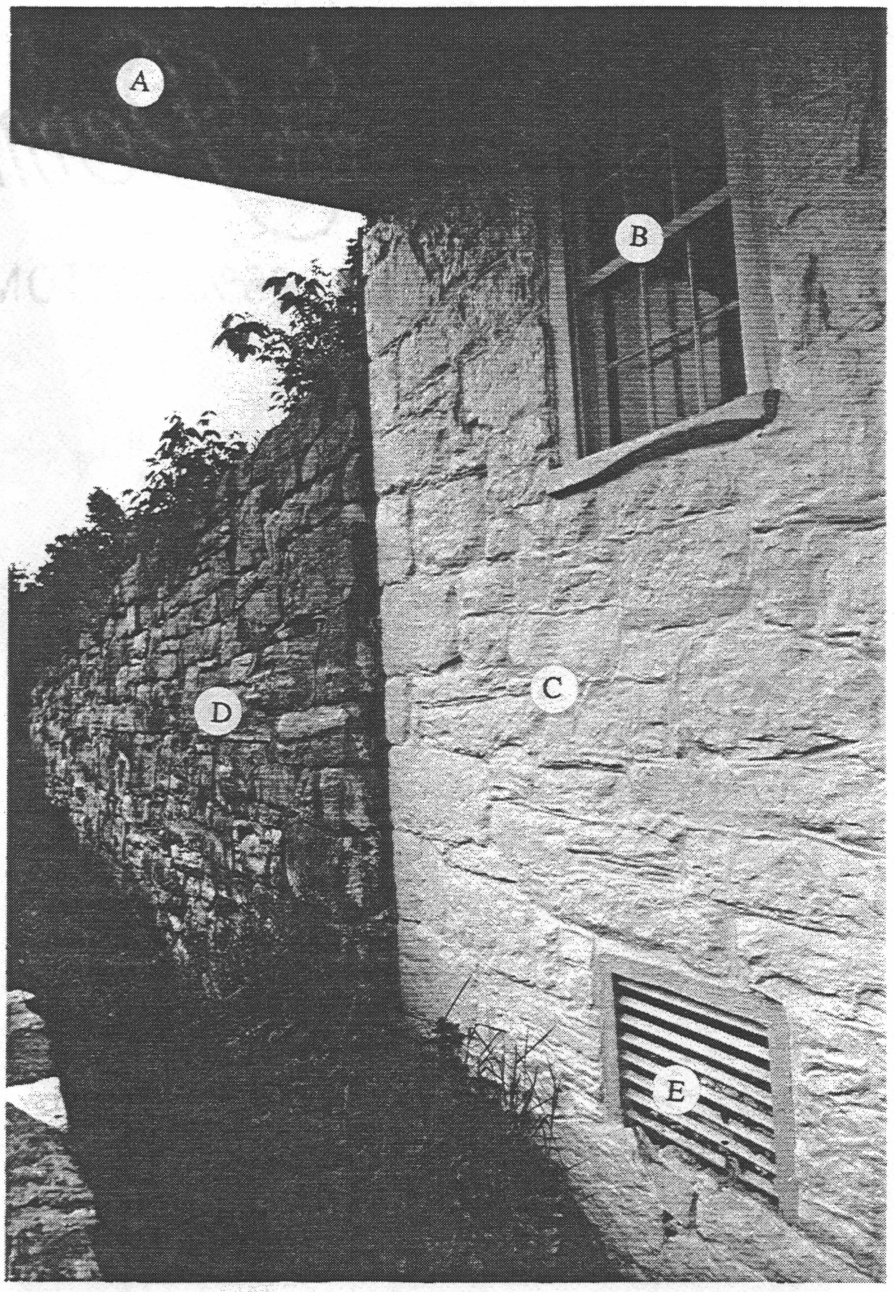

Photo 12
Sherrick House, south wall below porch.

A) South porch above.
B) Six over six double hung window at basement pantry.
C) Painted rubble stone foundation wall.
D) Battered rubble stone retaining wall.
E) Sub-basement window opening, with wood frame and horizontal wood bars. Insulation has been placed behind the bars.



Photo 12
Sherrick House, south wall below porch.
Photographed by David Amundson.
May, 1994

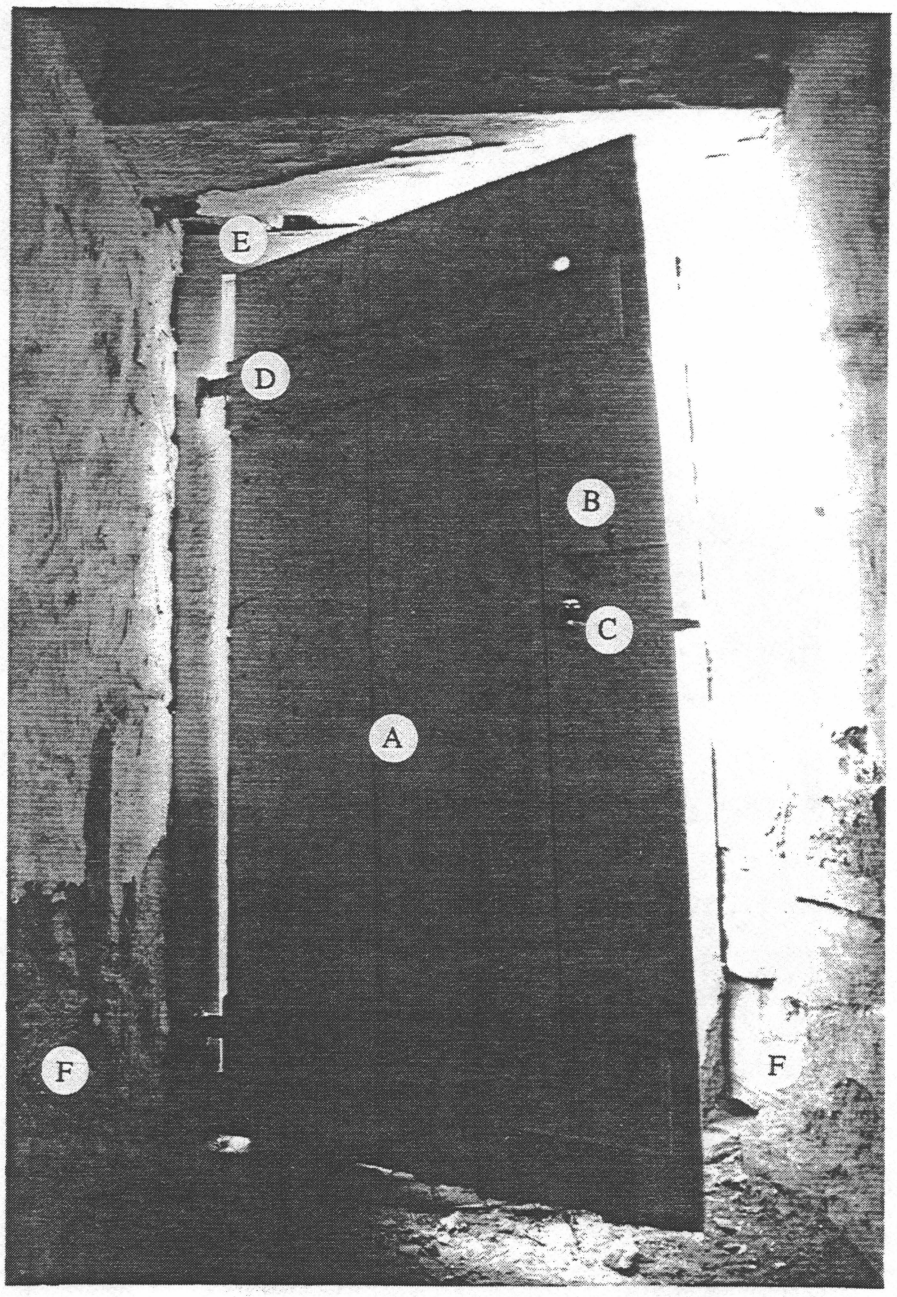

Photo 13
Sherrick House, inside of sub-basement door from spring room.

A) Vertical beaded board door.
B) Hand wrought Suffolk latch with wood latch bar.
C) Wood box lock.
D) Hand wrought strap hinge, typical of two.
E) Wood lintel over door.
F) Deteriorated plaster on stone.



Photo 13
Sherrick House, inside of sub-basement door from spring room.
Photographed by David Amundson.
May, 1994

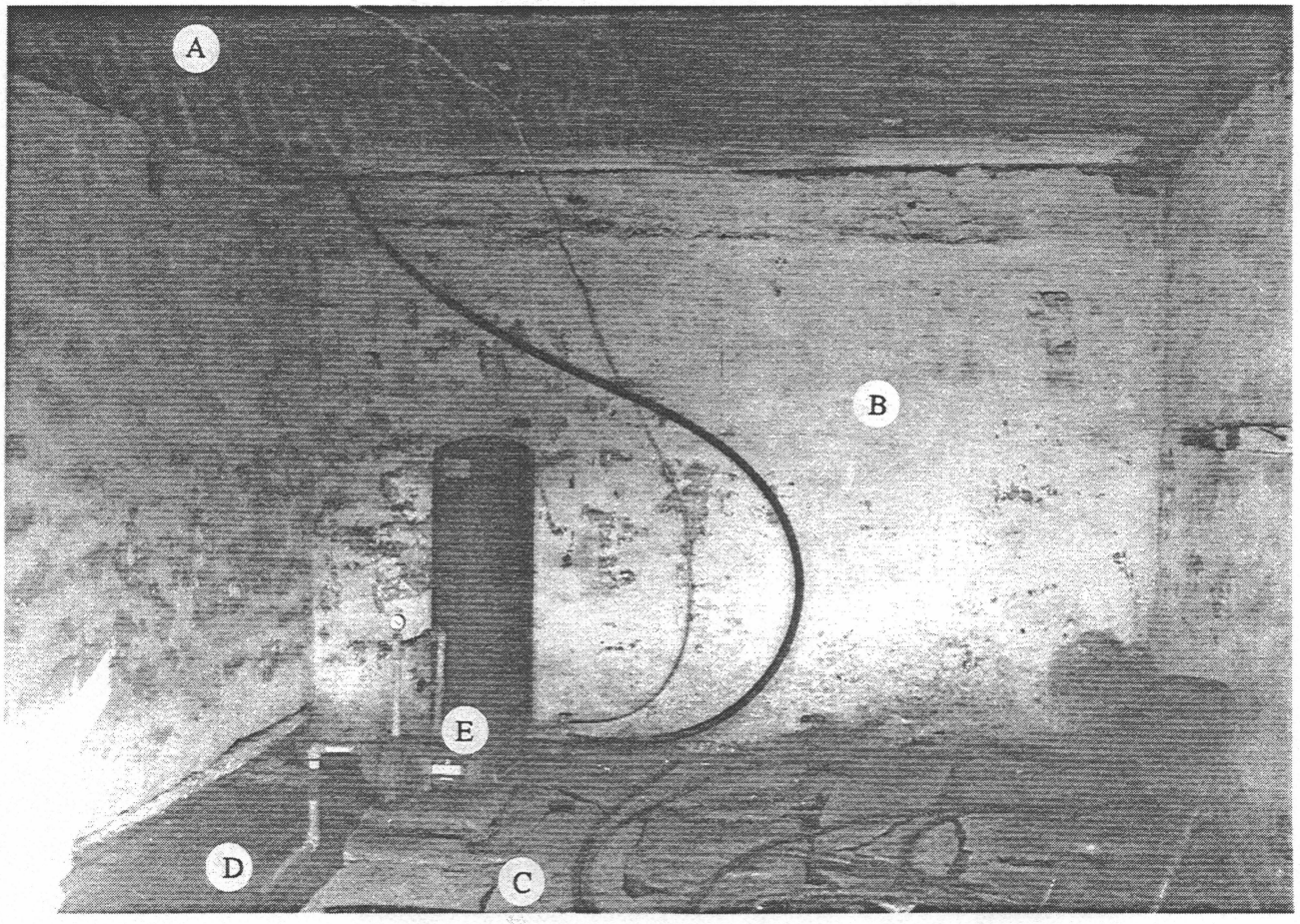

Photo 14
Sherrick House, sub-basement, looking north from door.

A) Wood floor joists.
B) Plastered and limewashed finish on rubble stone walls, typical.
C) Rubble stone floor.
D) Trough in floor for spring.
E) Electric pump and water storage tank.

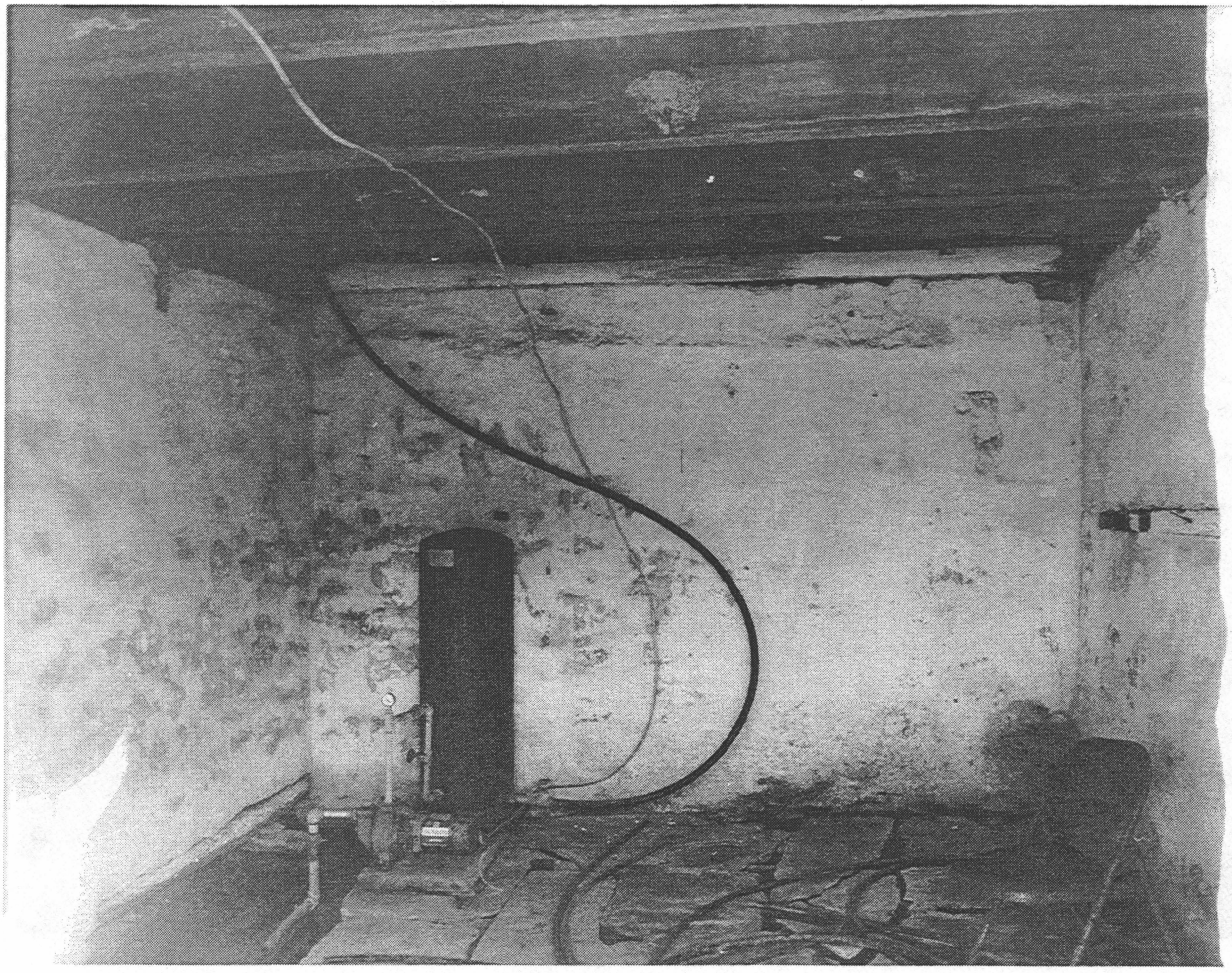

Photo 14
Sherrick House, sub-basement, looking north from door.
Photographed by Reed Black.
April, 1994

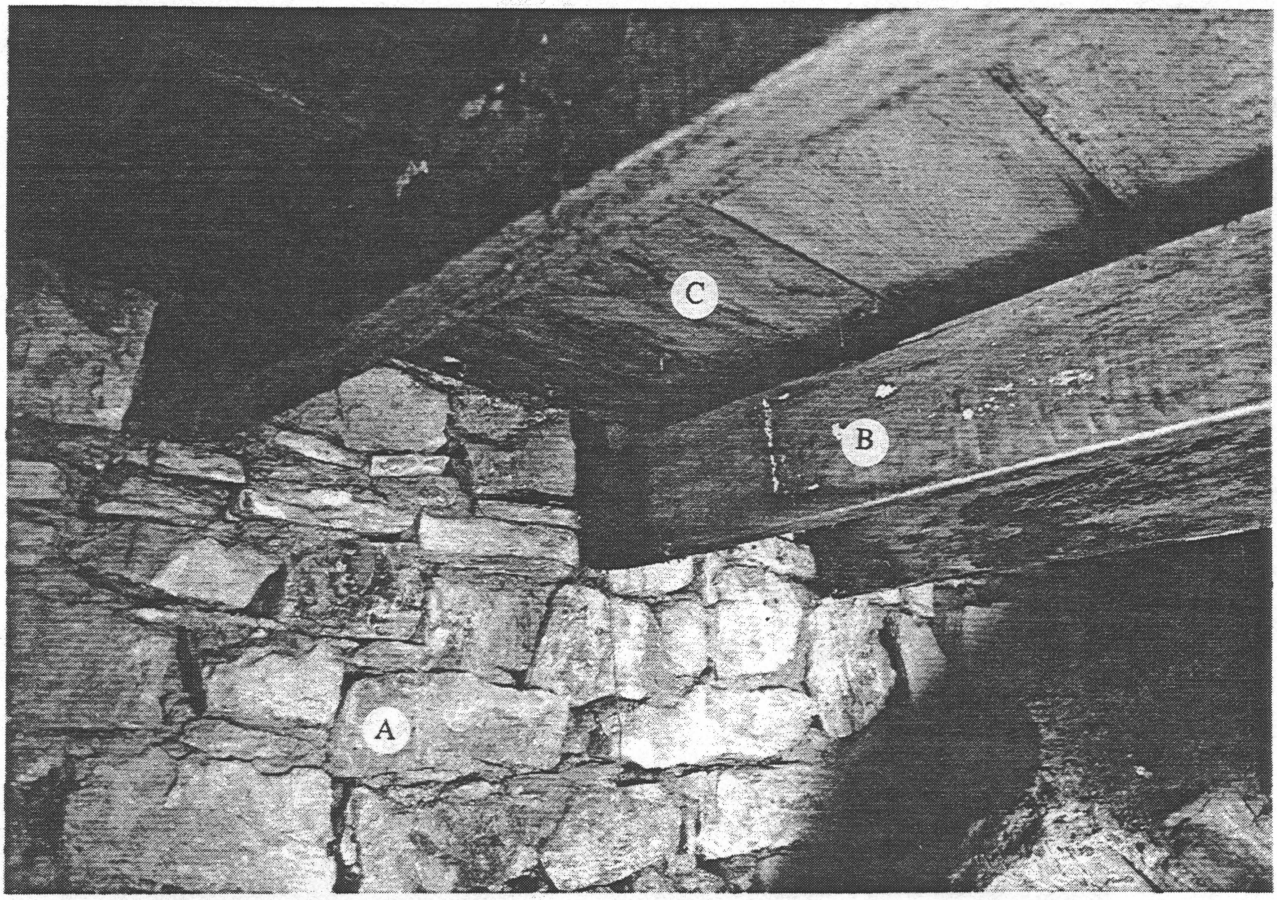

Photo 15
Sherrick House, sub-basement, showing basement floor framing above.

A) Rubble stone basement wall.
B) Wood floor joist, typical, deteriorated at ends from excess moisture.
C) 1" tongue-and-groove wood flooring, decayed from excess moisture.



Photo 15
Sherrick House, sub-basement, showing basement floor framing above.
Photographed by Reed Black.
April, 1994

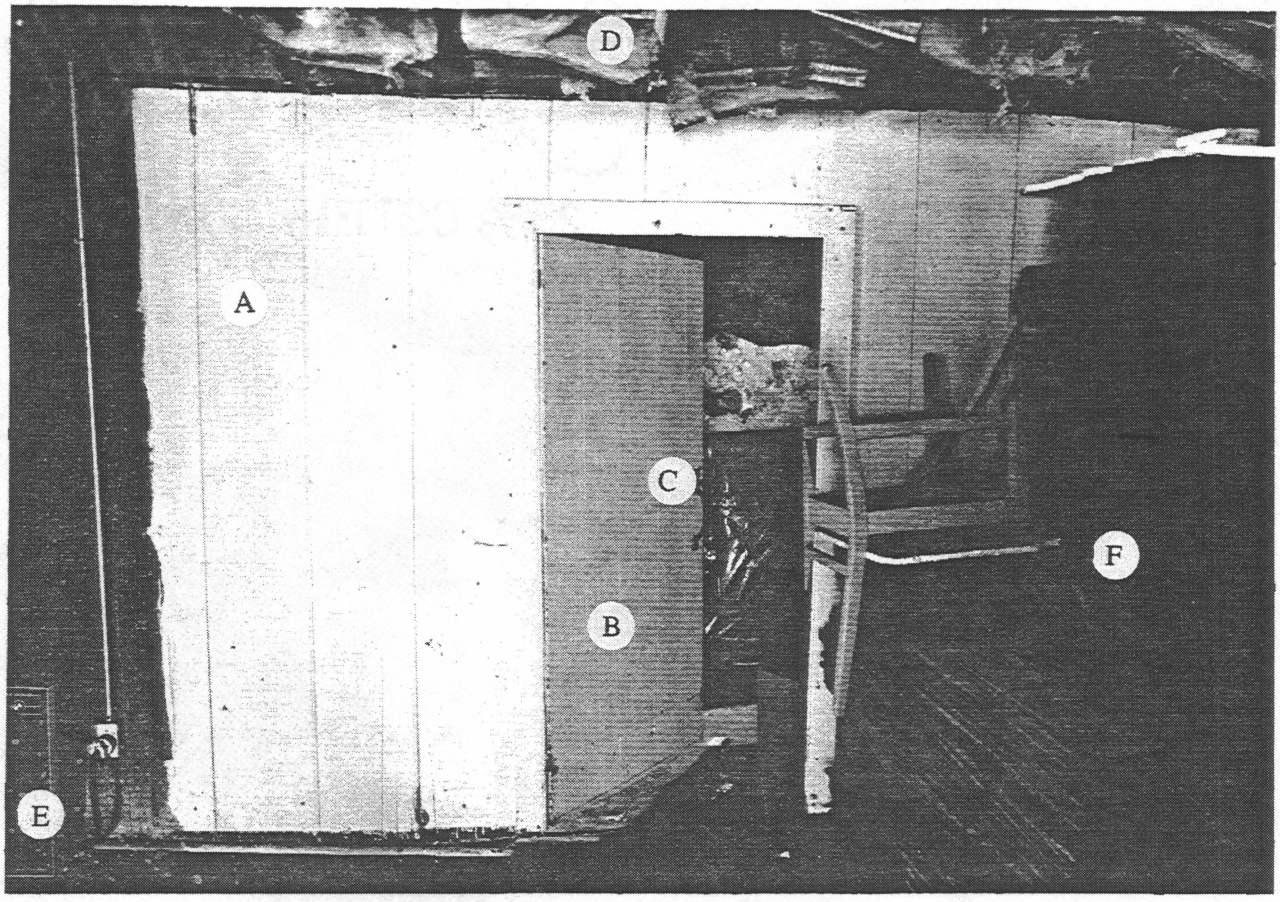

Photo 16
Sherrick House, basement kitchen interior, looking west towards pantry door and wall.

A) Vertical beaded board partition.
B) Vertical beaded board door.
C) Norfolk latch.
D) Batt insulation between floor joists, typical.
E) Electric unit heater.
F) Bundles of western red cedar shingles stored in basement.

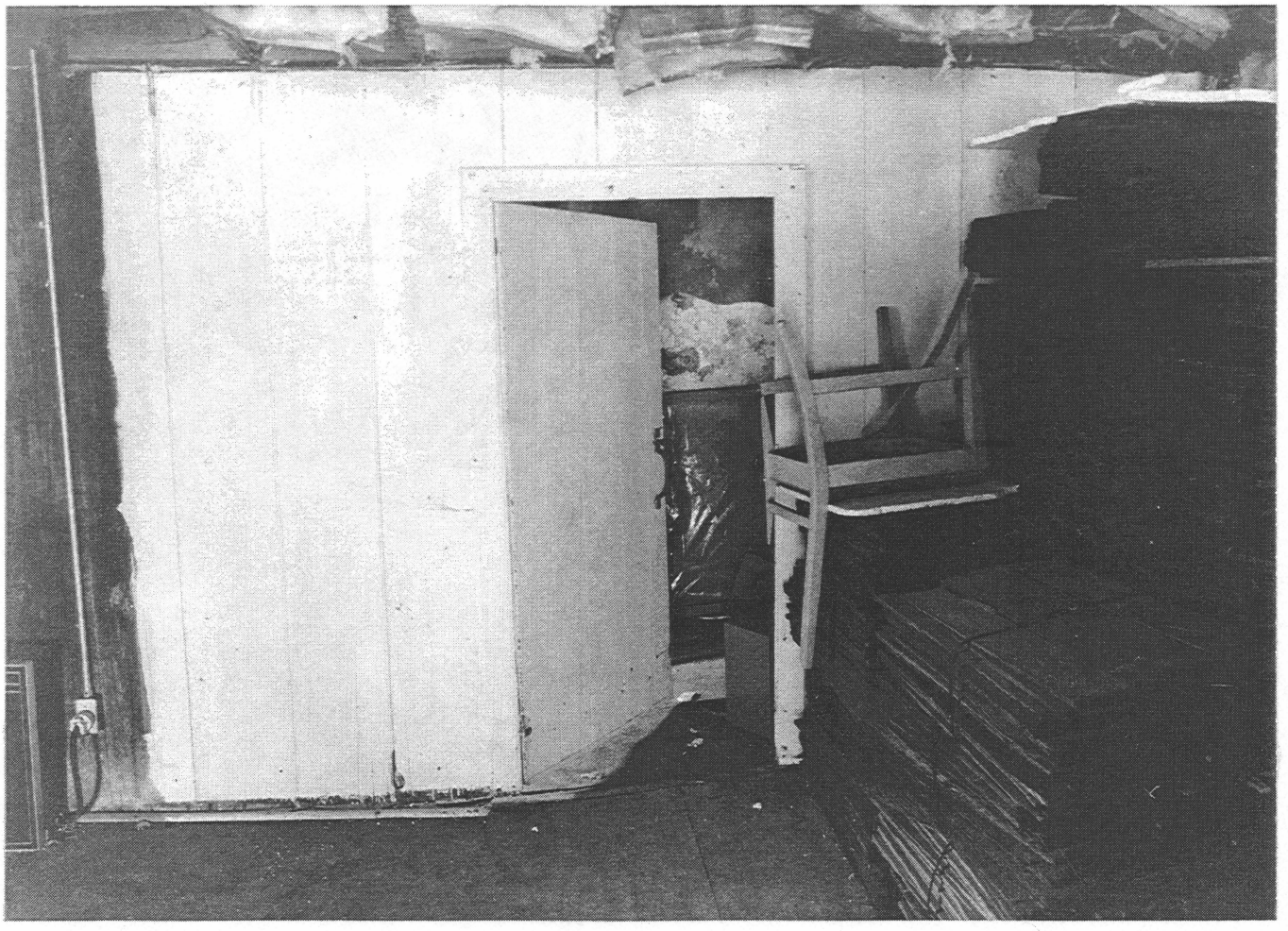

Photo 16
Sherrick House, basement kitchen interior, looking west towards pantry door and wall.
Photographed by David Amundson.
May, 1994

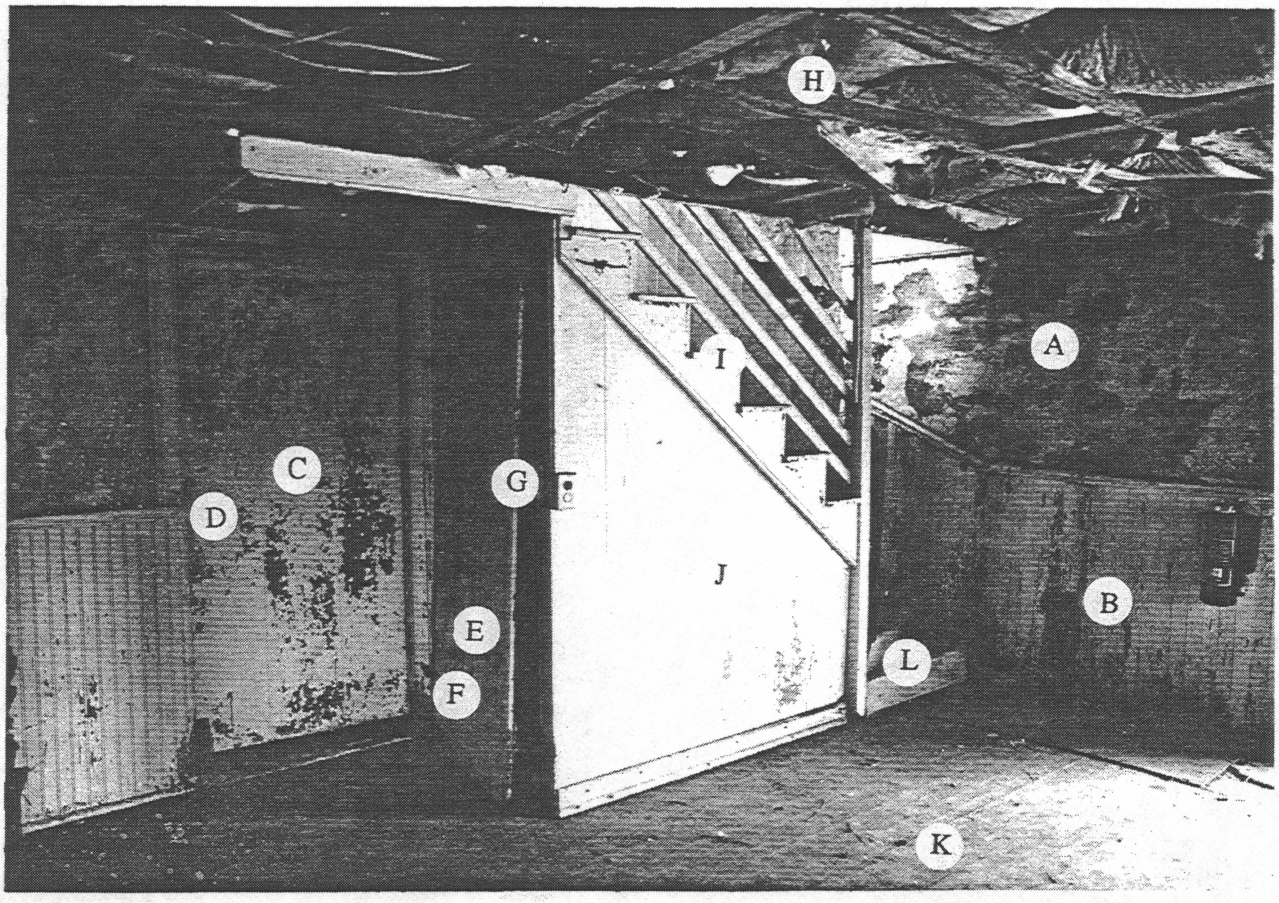

Photo 17
Sherrick House, basement kitchen interior, looking north toward stair to 1st floor and door to storage room.

A) Deteriorated limewashed plaster on rubble stone walls.
B) Machine-planed wood wainscot over deteriorated plaster.
C) Vertical beaded board door to basement storage space.
D) Norfolk latch.
E) Vertical beaded board door to closet.
F) Hand wrought HL hinges.
G) Wood turn block.
H) Wood floor joists and batt insulation.
I) Wood stair to 1st floor.
J) Beaded board siding.
K) Sheet linoleum over 1" tongue-and-groove wood floor.
L) Loose wood winder steps.

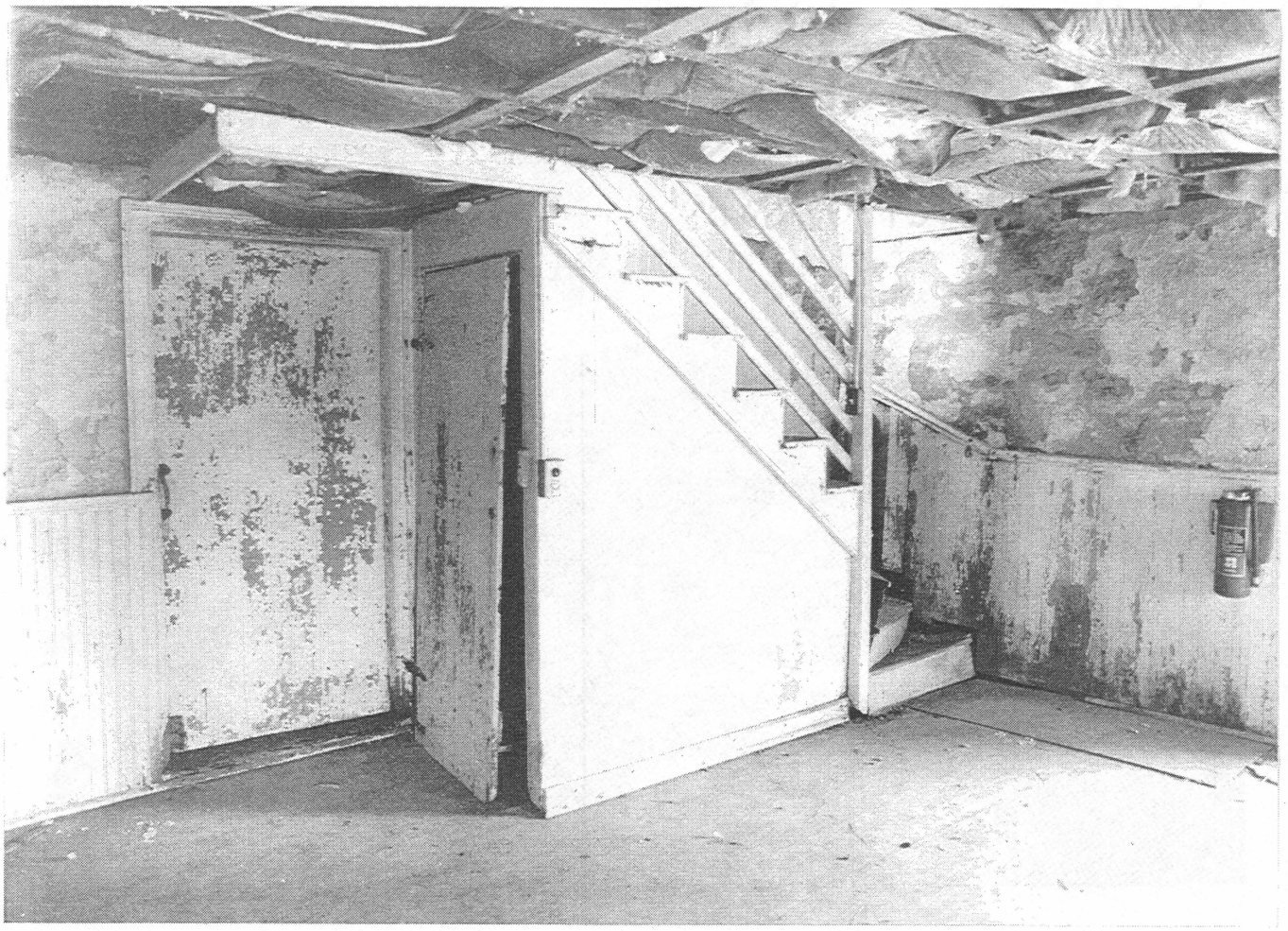

Photo 17
Sherrick House, basement kitchen interior, looking north toward stair to 1st floor and door to storage room.
Photographed by David Amundson.
May, 1994

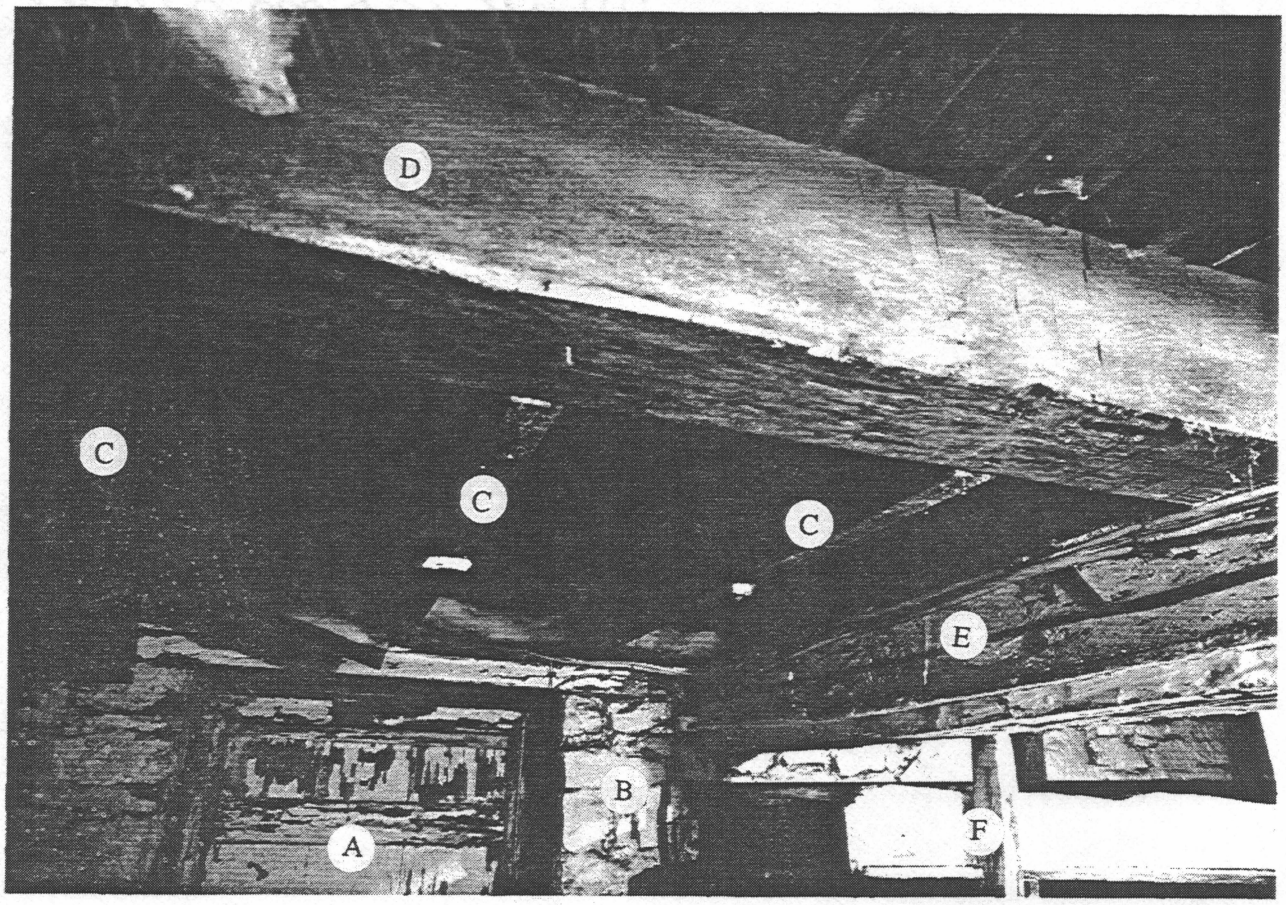

Photo 18
Sherrick House, basement storage room looking south.

A) Beaded board door to kitchen.
B) Rubble stone wall between kitchen and storage room, under south wall of stair hall.
C) Sawn floor joists under stair hall.
D) Hand hewn 8 3/4" x 8 3/4" wood beam under north wall of stair hall.
E) Hand hewn 10 1/4" x 10 3/4" wood beam, running north-south.
F) Whitewashed wood shelving.

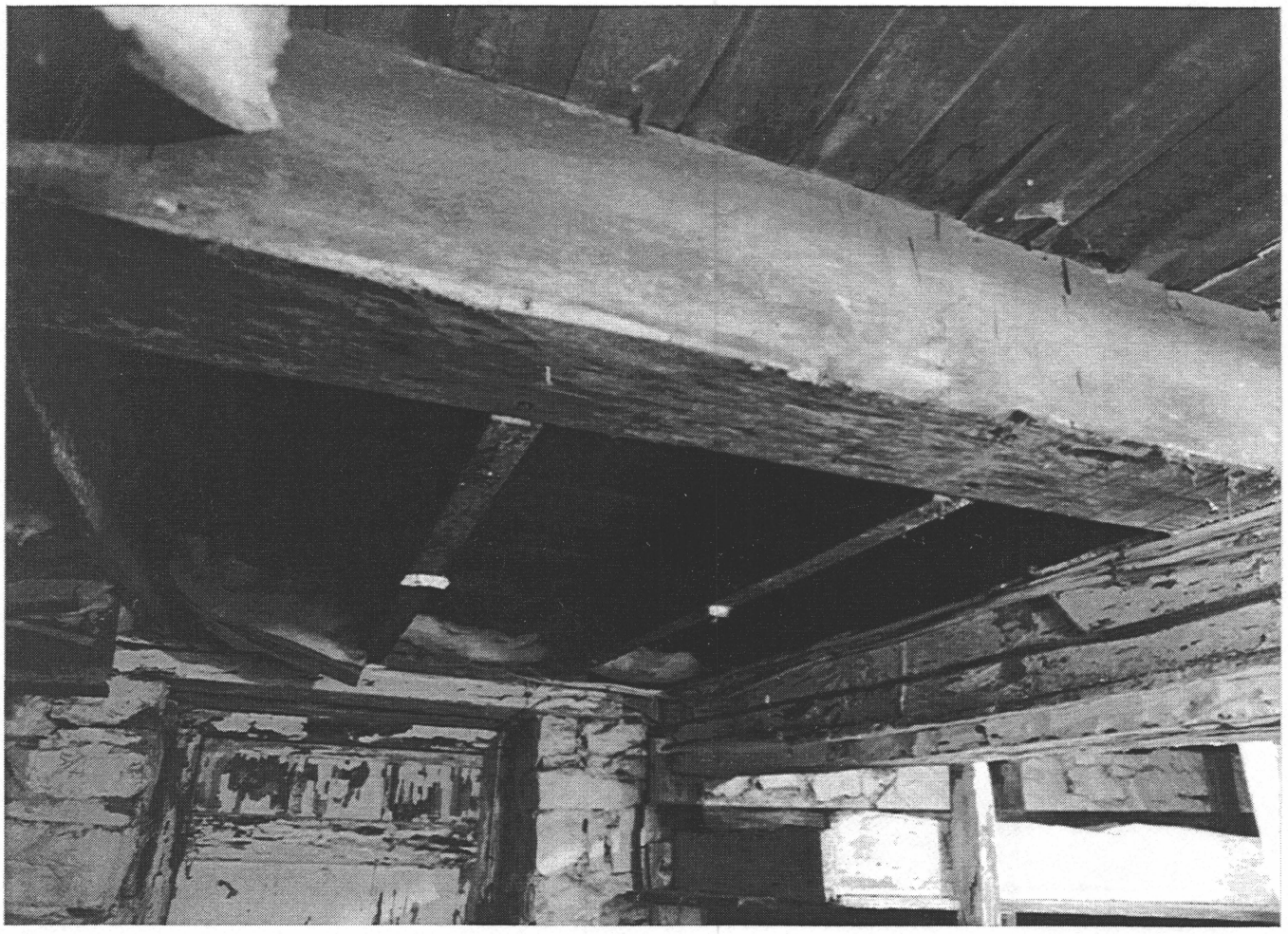

Photo 18
Sherrick House, basement storage room looking south.
Photographed by David Amundson.
May, 1994

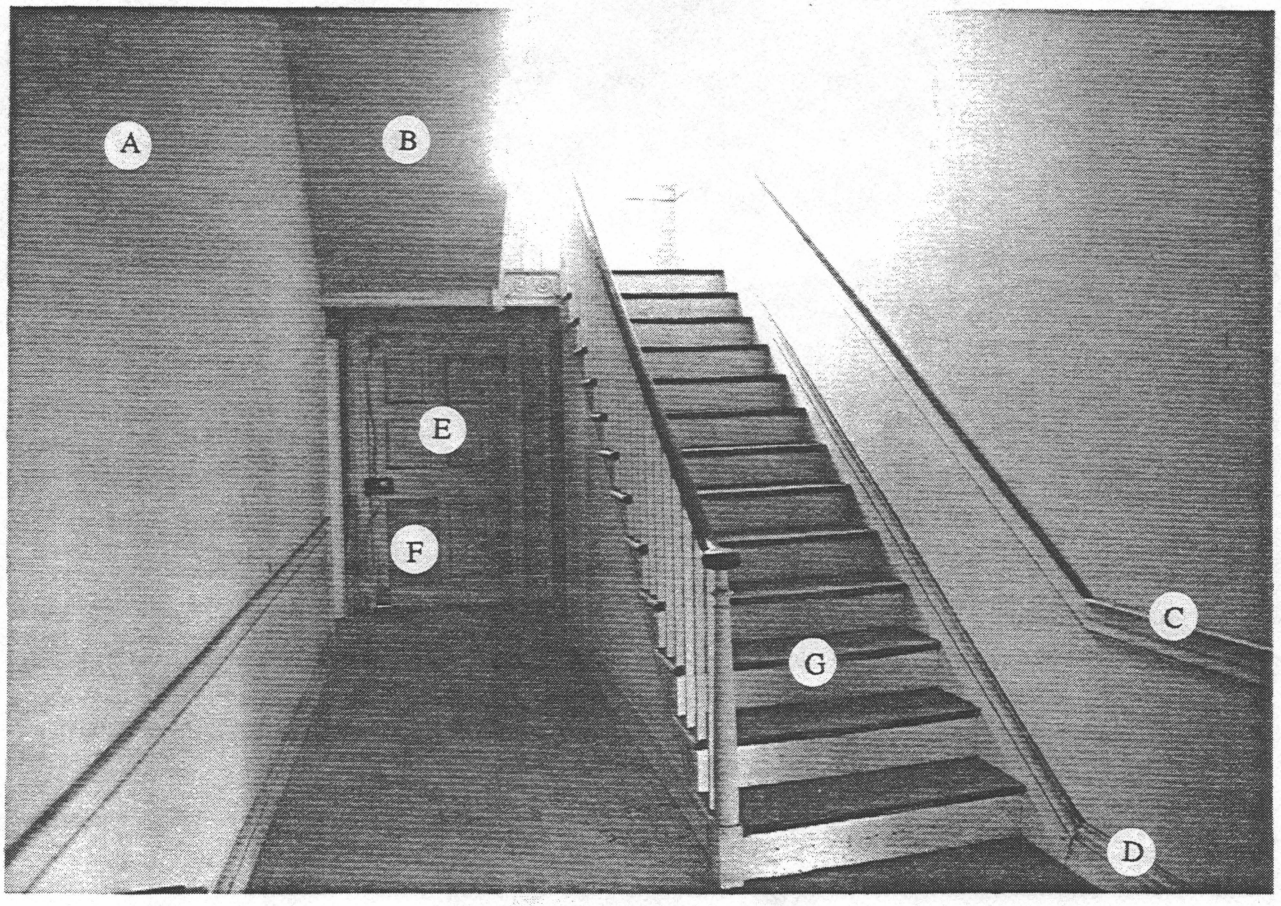

Photo 19
Sherrick House, main stair and entry hall, looking from the entry door toward the east.

A) Plaster wall, typical.
B) Plaster soffit under stair.
C) Wood wainscot, moulding set "A", typical.
D) Wood base, moulding set "A", typical.
E) Wood six-panel door to exterior, with Carpenter latch.
F) Plywood patch over panel chewed by groundhog.
G) Wood stair, with wood newel post, wood balusters, wood treads and risers, and wood stringers.



Photo 19
Sherrick House, main stair and entry hall, looking from the entry door toward the east.
Photographed by David Amundson.
May, 1994

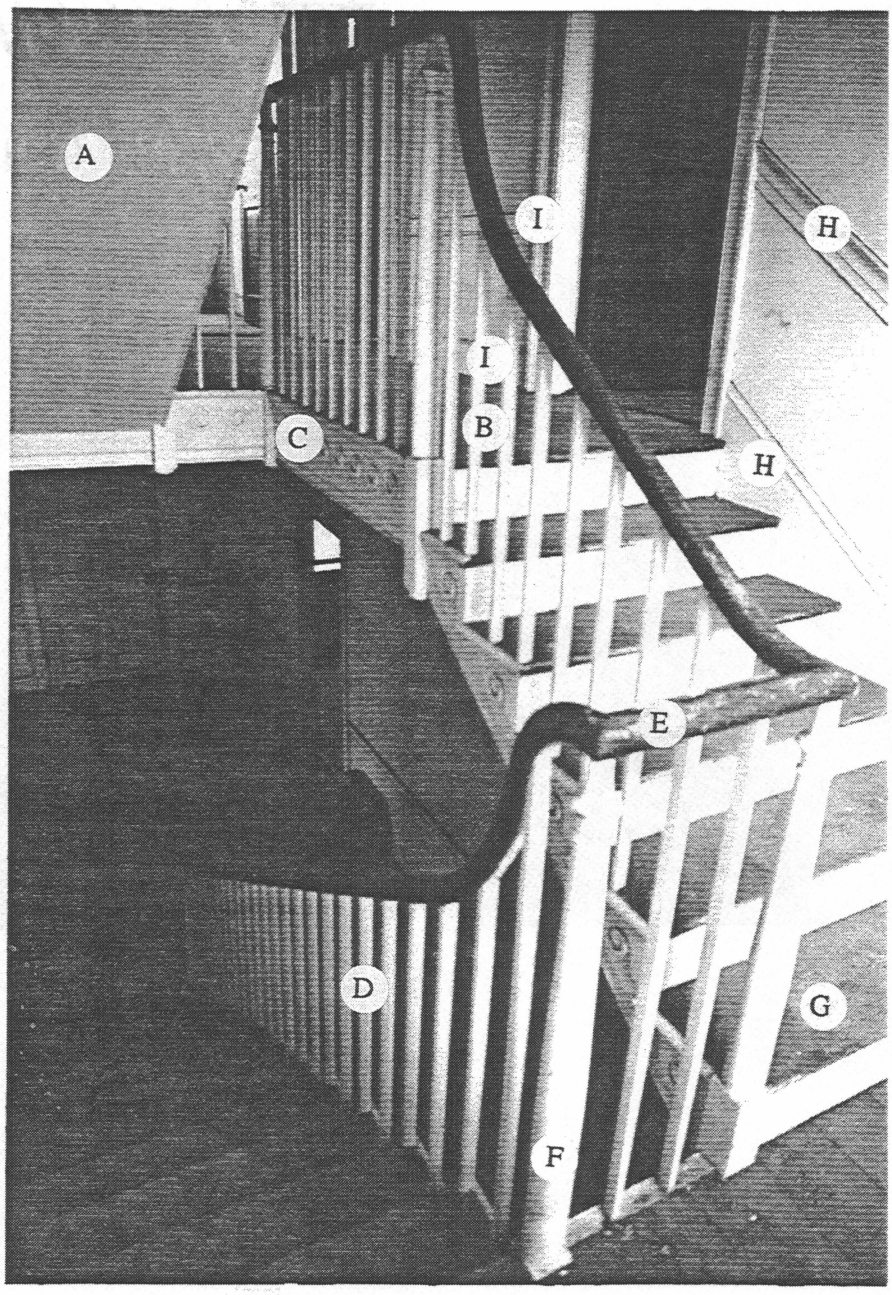

Photo 20
Sherrick House, main stair, looking west from landing.

A) Plaster soffit under stair to attic.
B) Cantilevered landing at 2nd floor.
C) Wave moulding at side of stair.
D) Rectangular balusters, typical.
E) Oval handrail, stained dark brown.
F) Turned wood newel, typical.
G) Stained wood tread, typical.
H) Wood base and chair rail, moulding set "A", terminate at frame of door to northeast bedroom.
I) Wood base and chair rail, moulding set "B", beyond.



Photo 20
Sherrick House, main stair, looking west from landing.
Photographed by David Amundson.
May, 1994

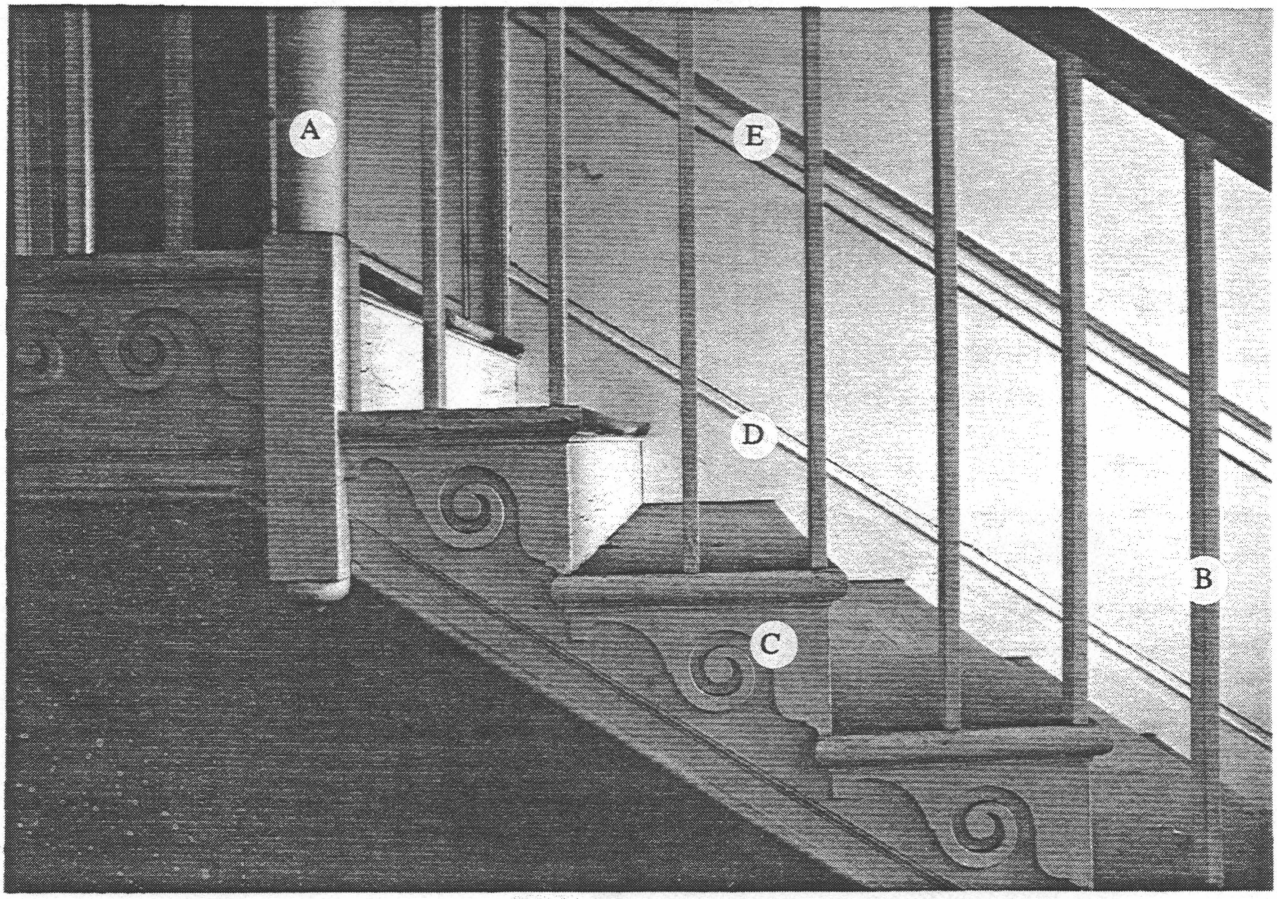

Photo 21
Sherrick House, moulding at side of main stair, at 2nd floor landing.

A) Turned wood newel.
B) Rectangular wood balusters, typical.
C) Wood wave moulding at side of stairs.
D) Wood base, moulding set "A".
E) Wood chair rail, moulding set "A".

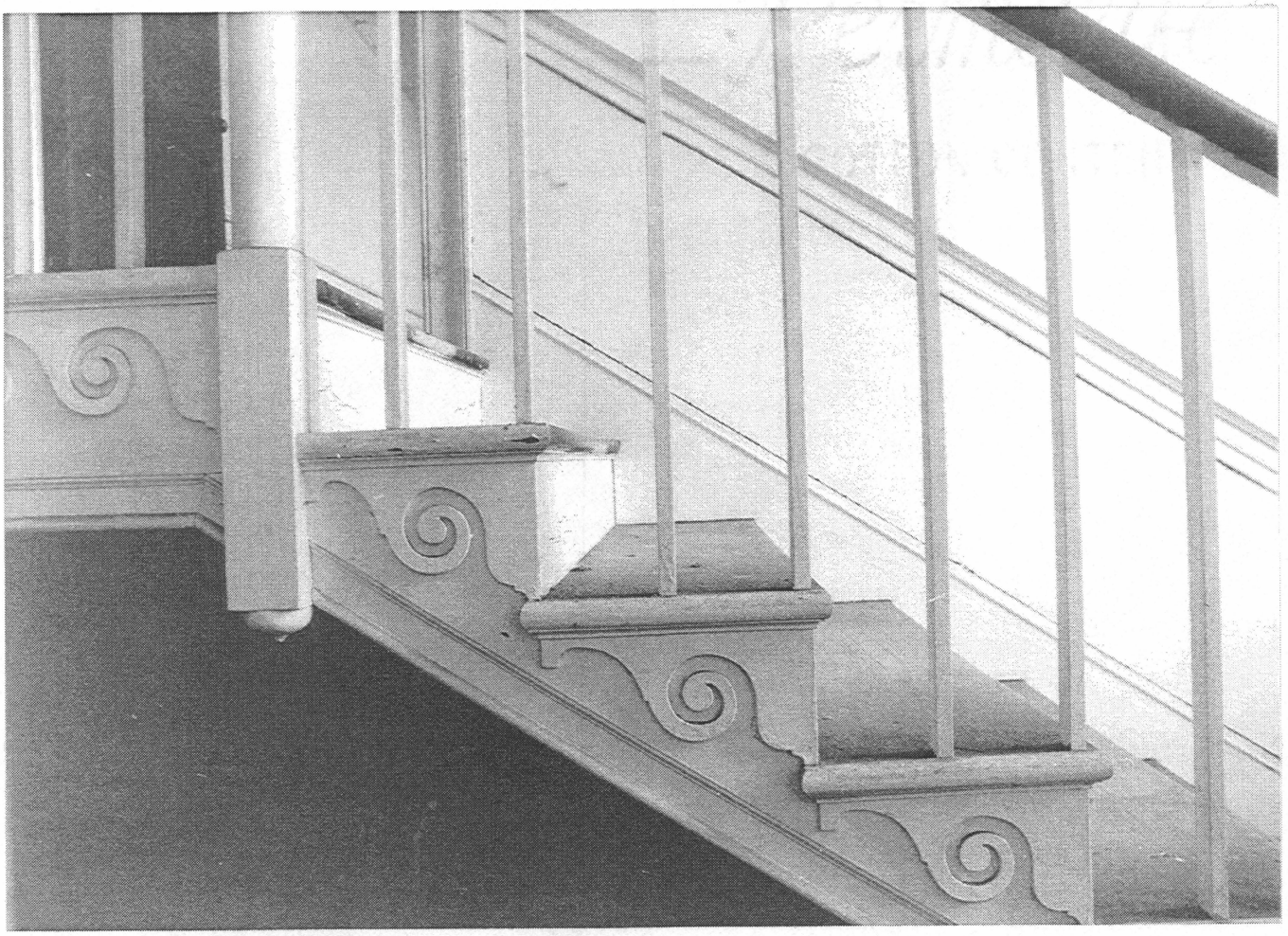

Photo 21
Sherrick House, moulding at side of main stair, at 2nd floor landing.
Photographed by David Amundson.
May, 1994

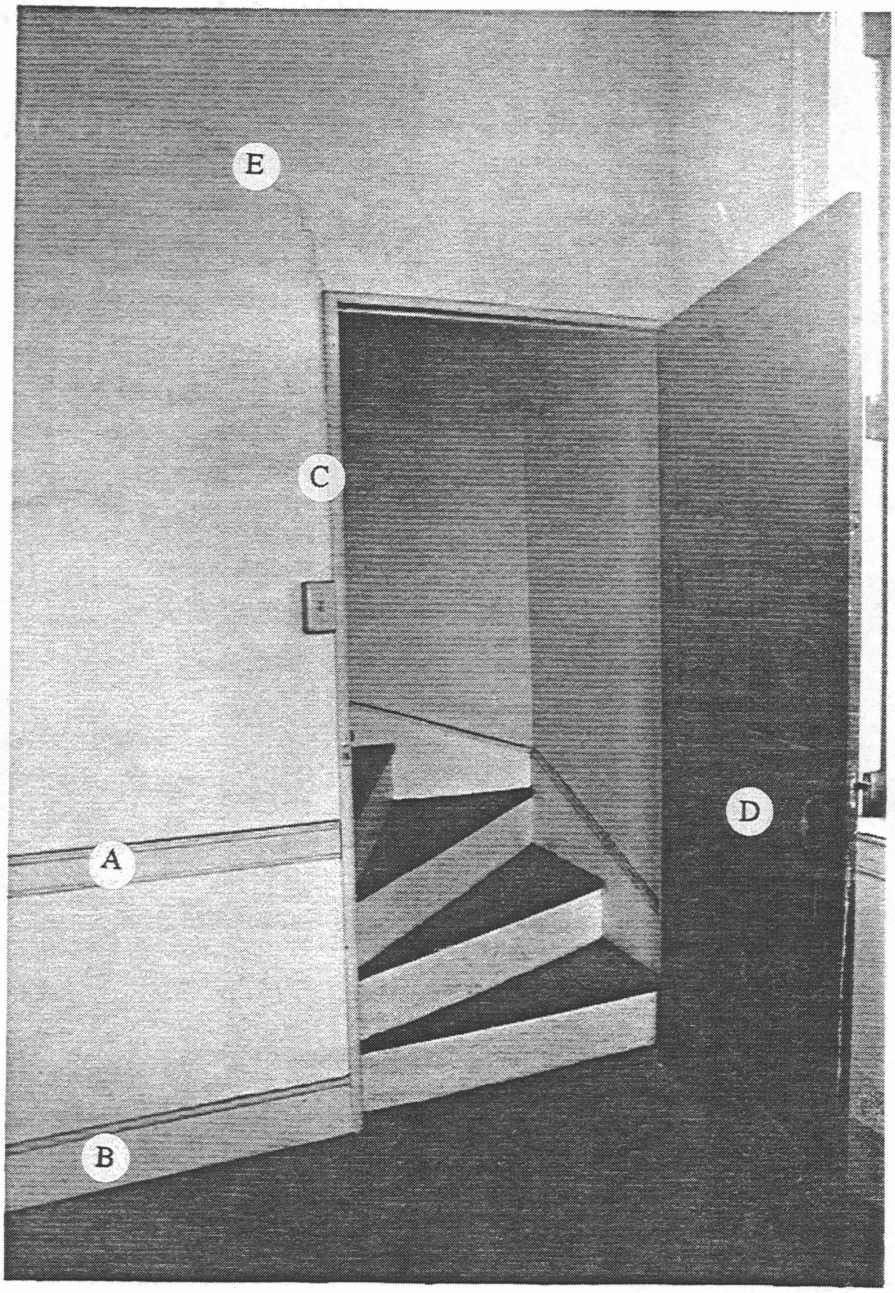

Photo 22
Sherrick House, servant stair looking at stair to 2nd floor from servants' room.

A) Wood chair rail, moulding set "B".
B) Wood base, moulding set "B".
C) Wood door casing.
D) Six panel wood door with grained finish and Norfolk latch.
E) Crack in plaster wall.

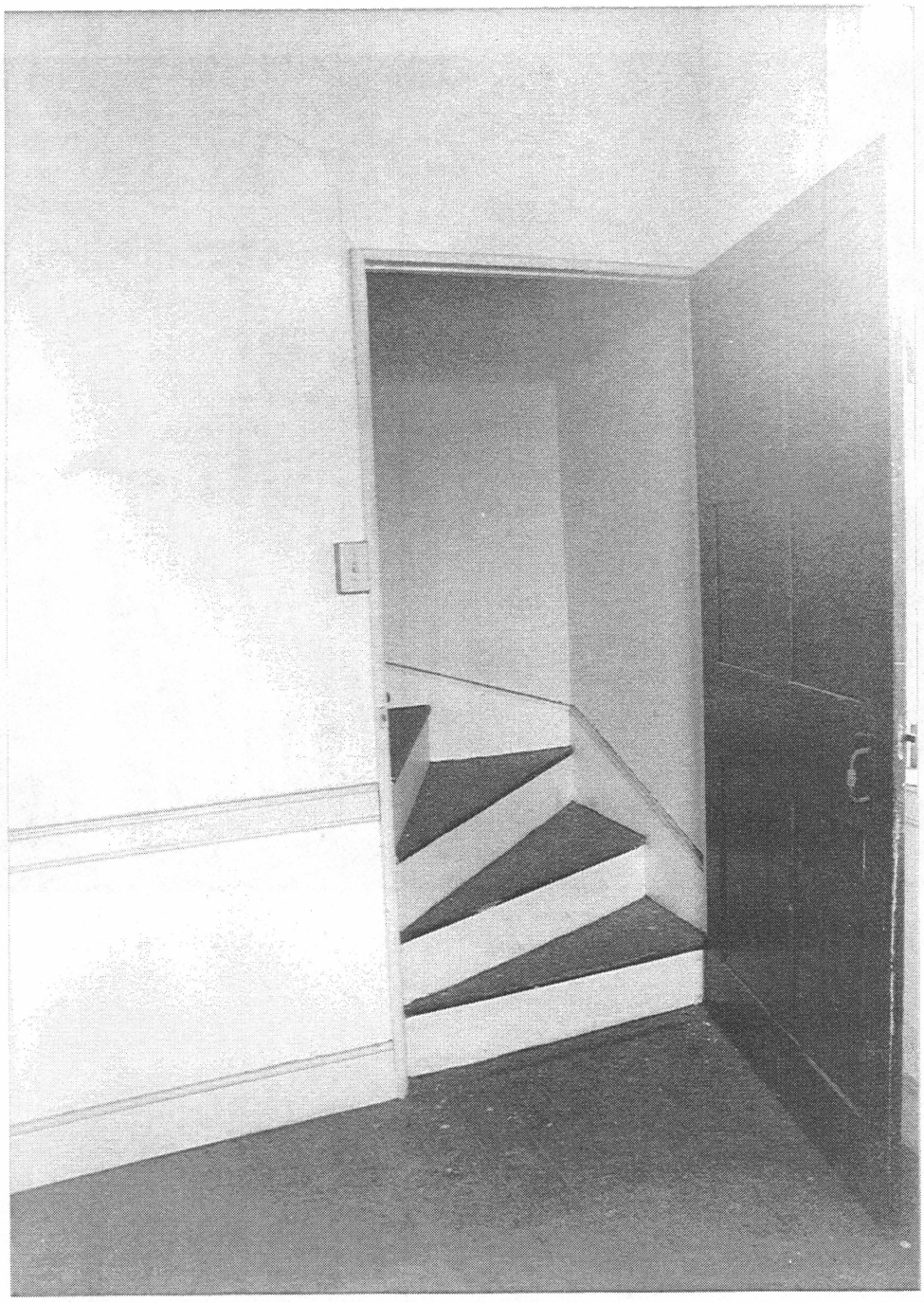

Photo 22
Sherrick House, servant stair looking at stair to 2nd floor from servants' room.
Photographed by David Amundson.
May, 1994

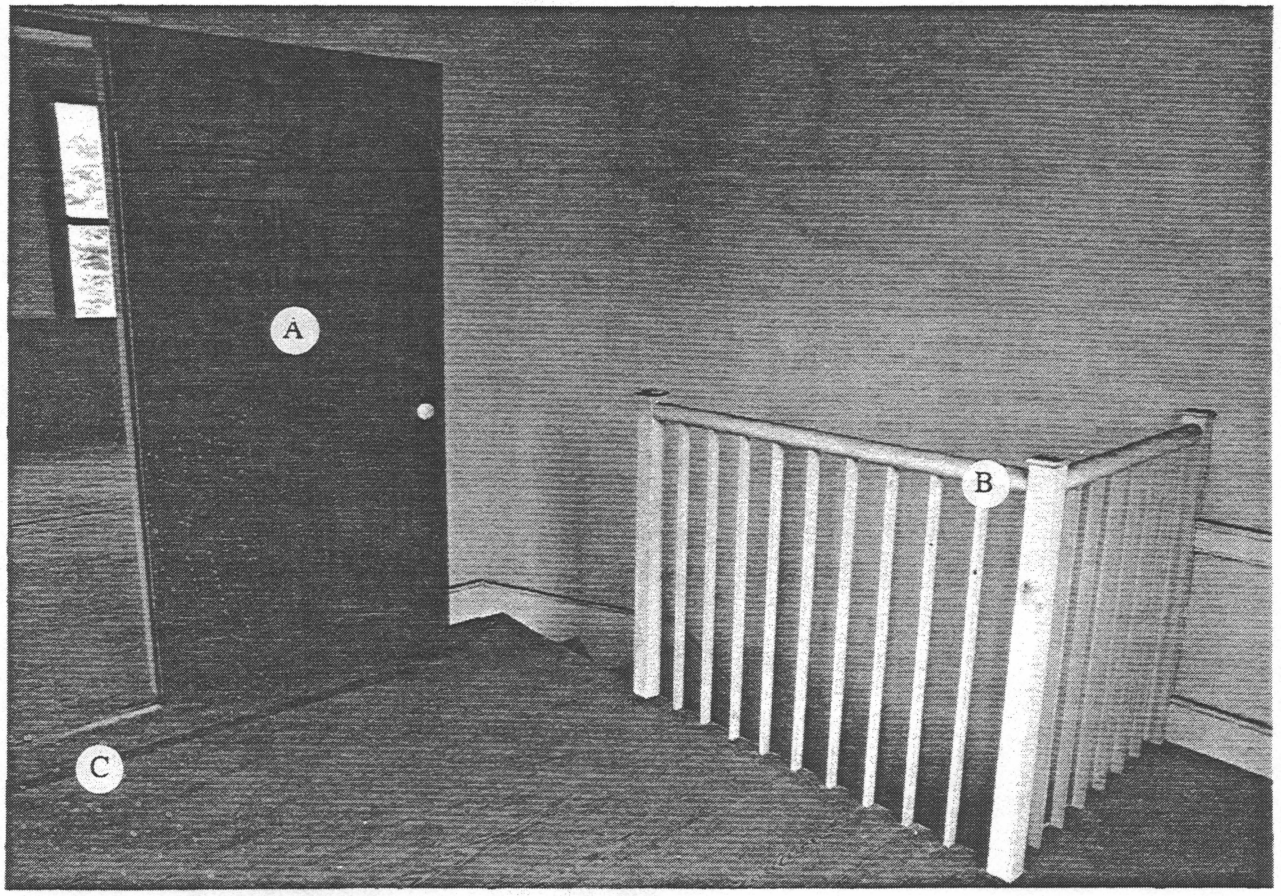

Photo 23
Sherrick House, door and stair rail at 2nd floor nursery looking northwest.

A) Six panel wood door with grained finish and Carpenter latch.
B) Wood balustrade at opening to servant stair.
C) Board removed from 1" tongue-and-groove wood floor for wiring chase.



Photo 23
Sherrick House, door and stair rail at 2nd floor nursery looking northwest.
Photographed by David Amundson.
May, 1994

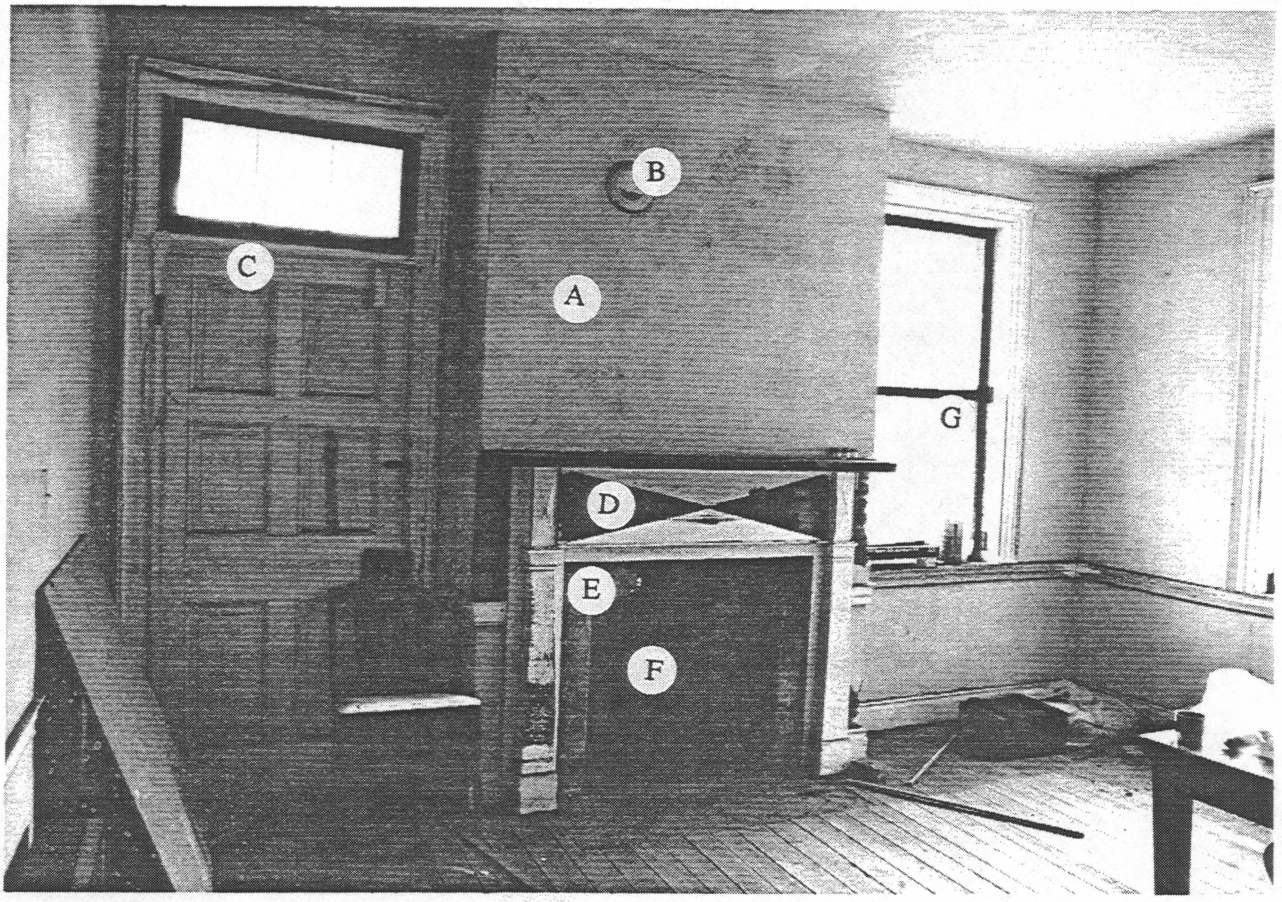

Photo 24
Sherrick House dining room south wall.

A) Plaster over brick chimney breast.
B) Metal thimble for wood stove connection to chimney.
C) Six panel wood door with Carpenter latch and transom window, storm sash over interior of window.
D) Wood fireplace mantel.
E) Plaster fireplace surround with marbleized finish. Plaster is missing from approximately 50% of the surround.
F) Plaster over brick firebox.
G) Storm sash over interior of wood window.

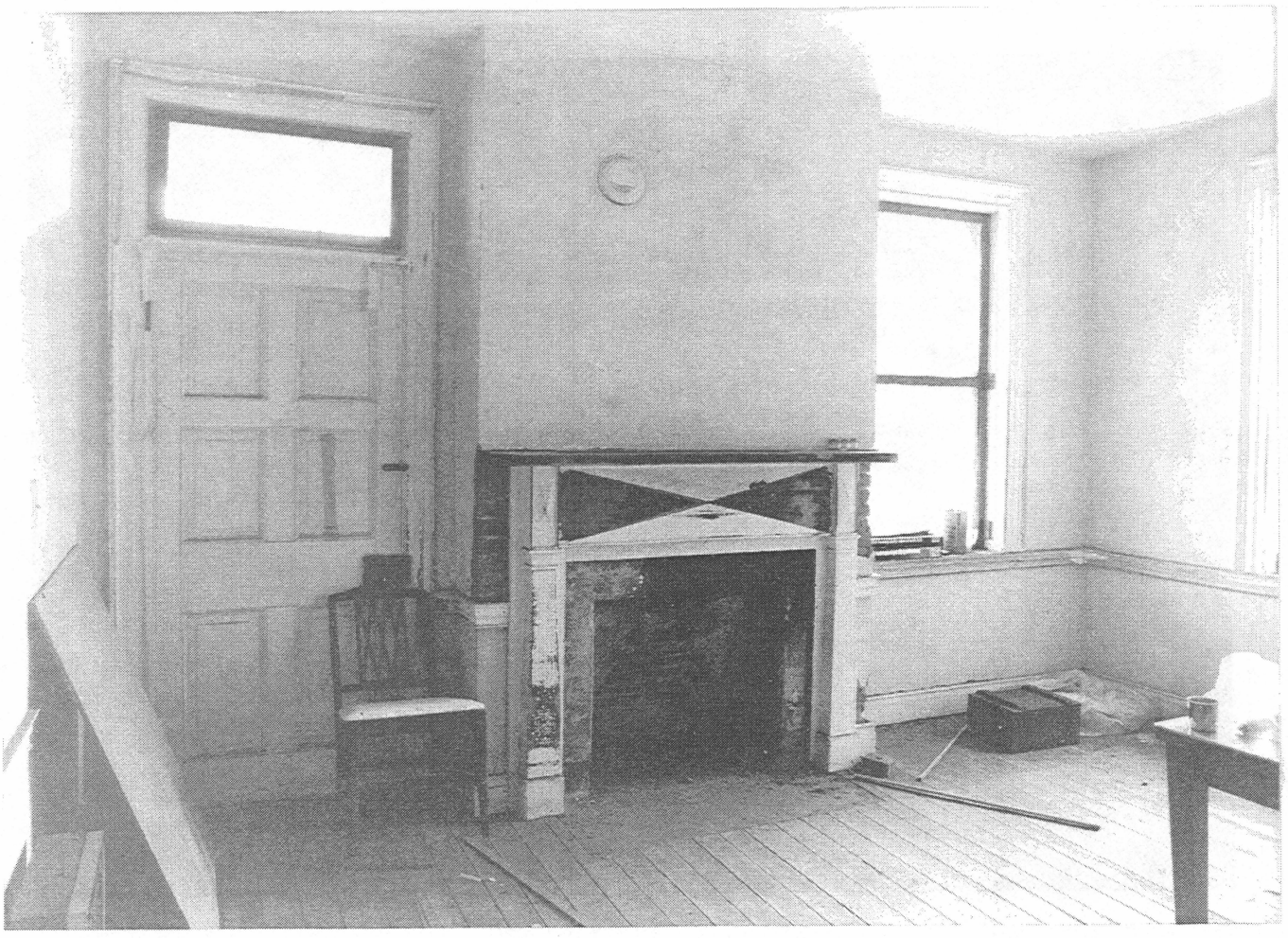

Photo 24
Sherrick House dining room south wall.
Photographed by David Amundson.
May, 1994

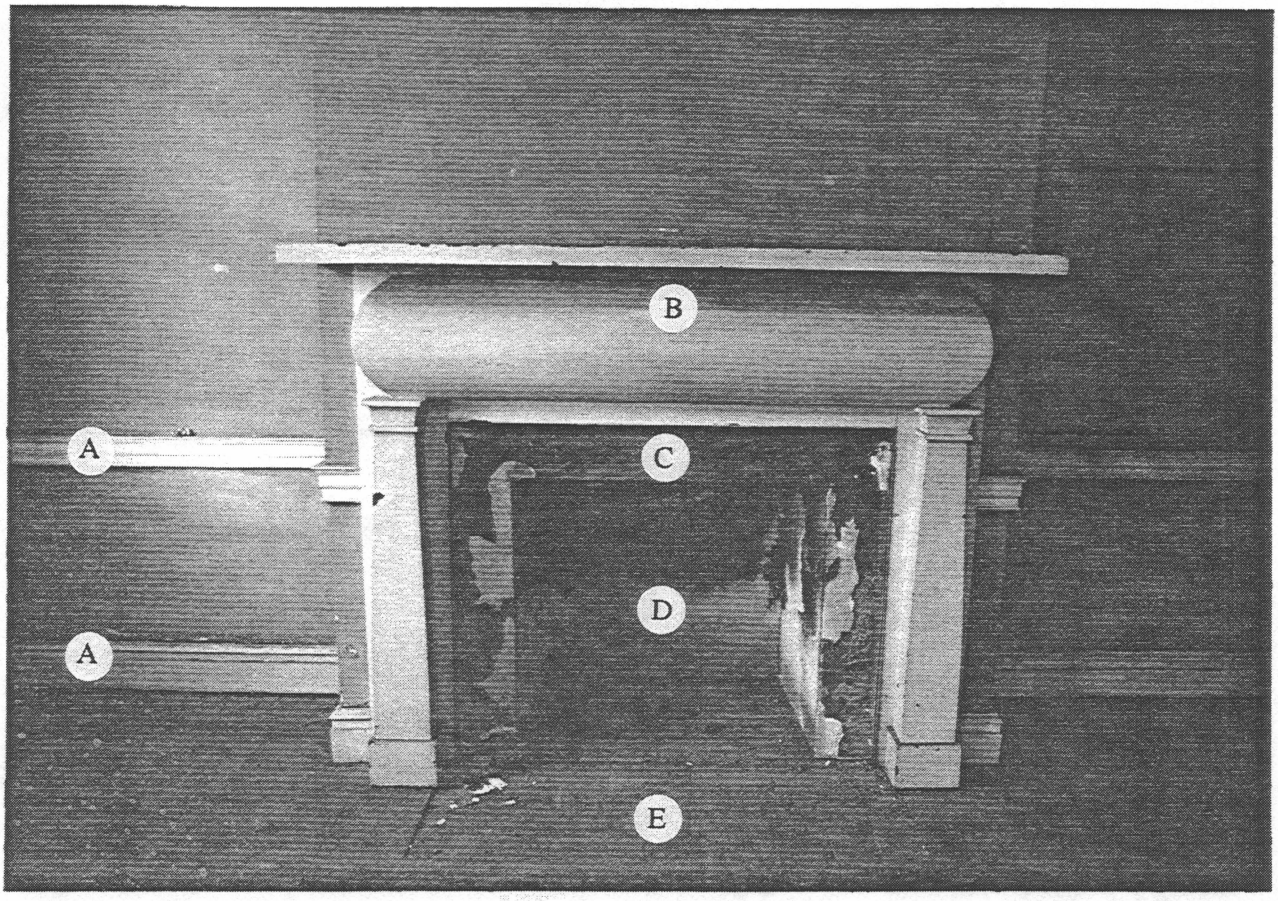

Photo 25
Sherrick House, 1st floor parlor fireplace.

A) Wood base and chair rail, moulding set "A".
B) Wood mantel.
C) Plaster fireplace surround with marbleized finish. Plaster is missing from approximately 35% of the surround.
D) Plaster over brick firebox.
E) Brick hearth.



Photo 25
Sherrick House, 1st floor parlor fireplace.
Photographed by David Amundson.
May, 1994

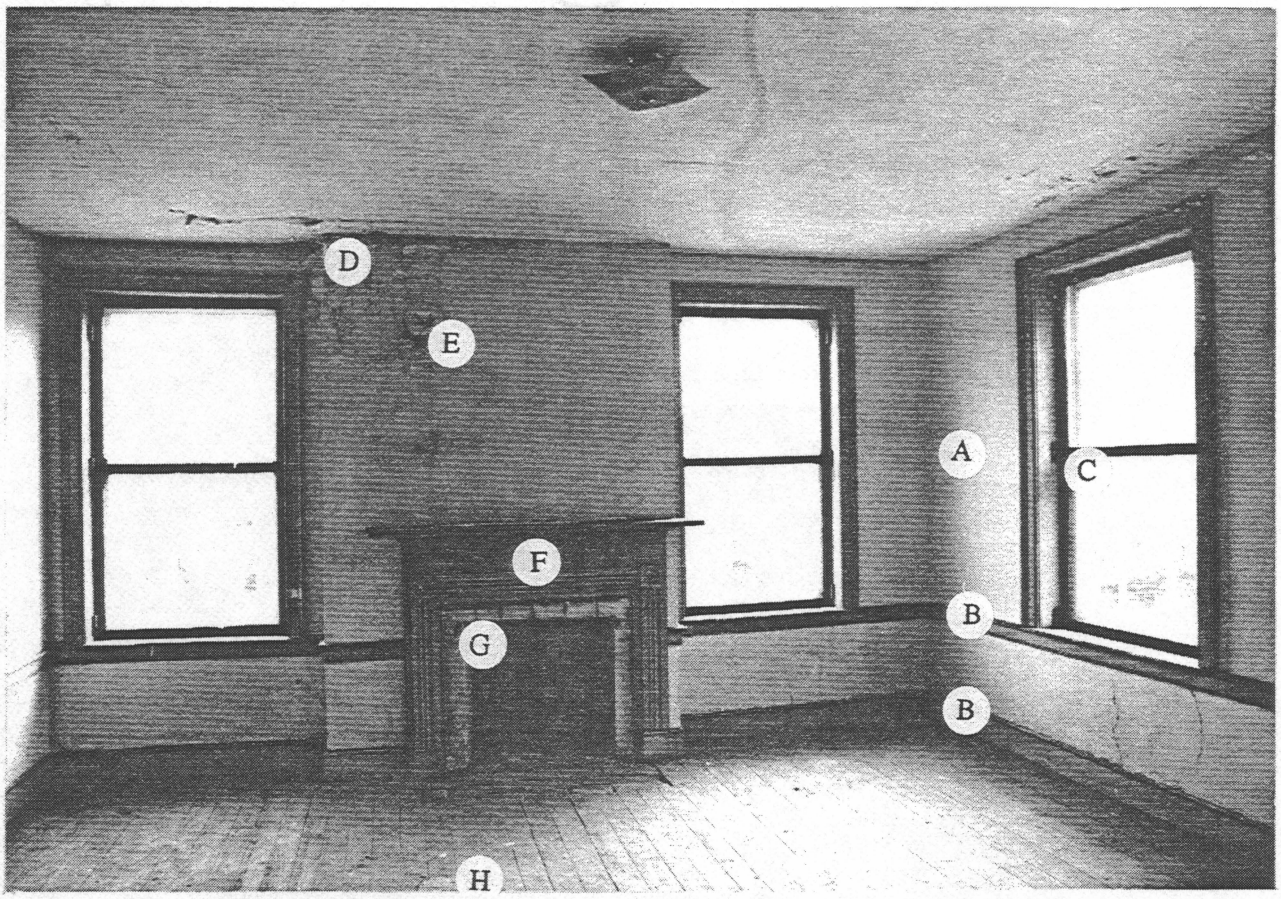

Photo 26
Sherrick House, 2nd floor southwest bedroom, looking south.

A) Plaster wall, typical.
B) Wood base and chair rail, moulding set "B", typical.
C) Storm sash over interior of wood window, typical.
D) Moisture damage to plaster.
E) Metal thimble for wood stove connection to chimney.
F) Wood fireplace mantel.
G) Plaster over brick firebox and fireplace surround.
H) Patched hole in 1" tongue-and-groove wood floor for stove pipe.



Photo 26
Sherrick House, 2nd floor southwest bedroom, looking south.
Photographed by David Amundson.
May, 1994

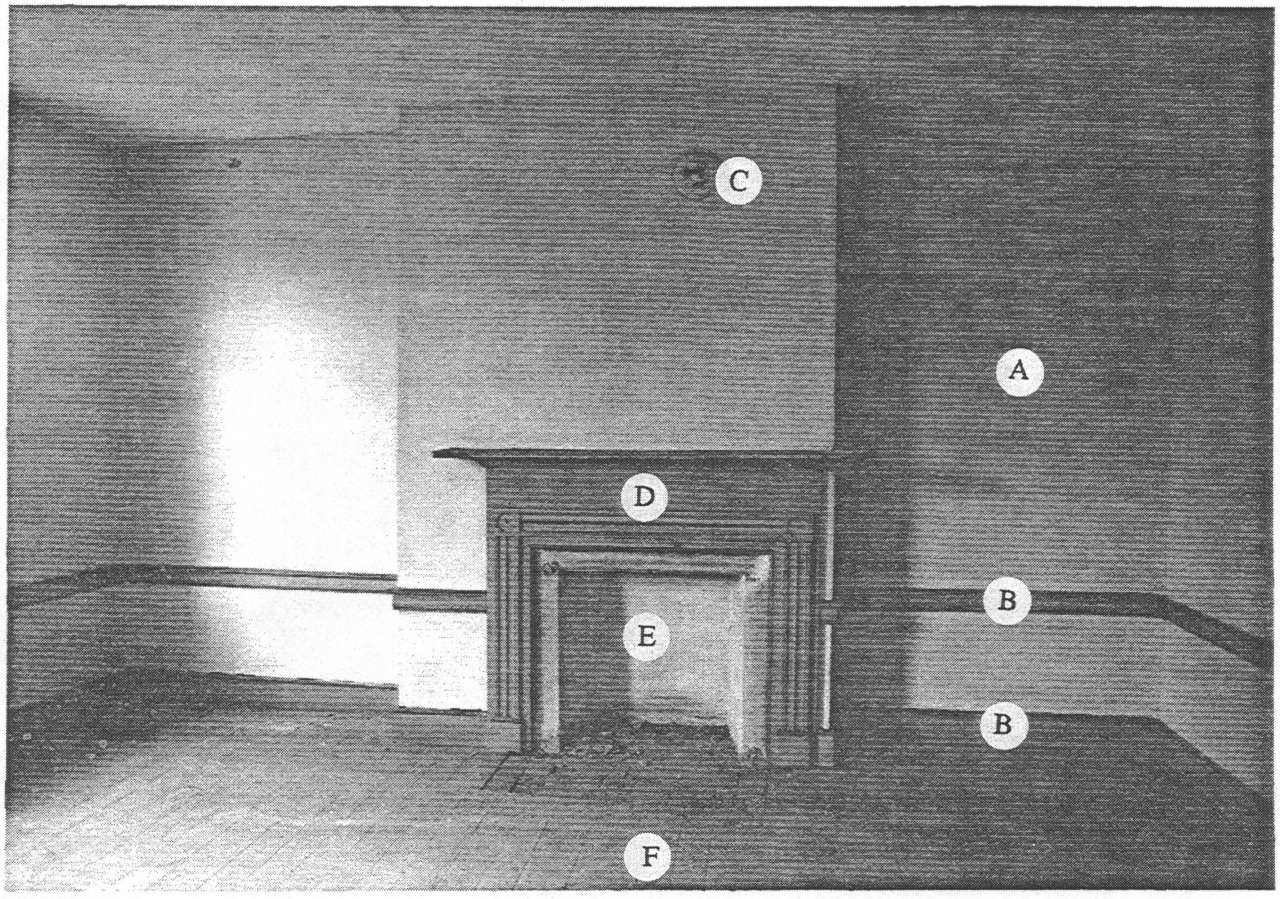

Photo 27
Sherrick House, 2nd floor northwest bedroom wall and fireplace, looking north.

A) Plaster wall, typical.
B) Wood base and chair rail, moulding set "B", typical.
C) Metal thimble for wood stove connection to chimney.
D) Wood fireplace mantel.
E) Plaster over brick firebox and fireplace surround.
F) 1" tongue-and-groove wood floor.

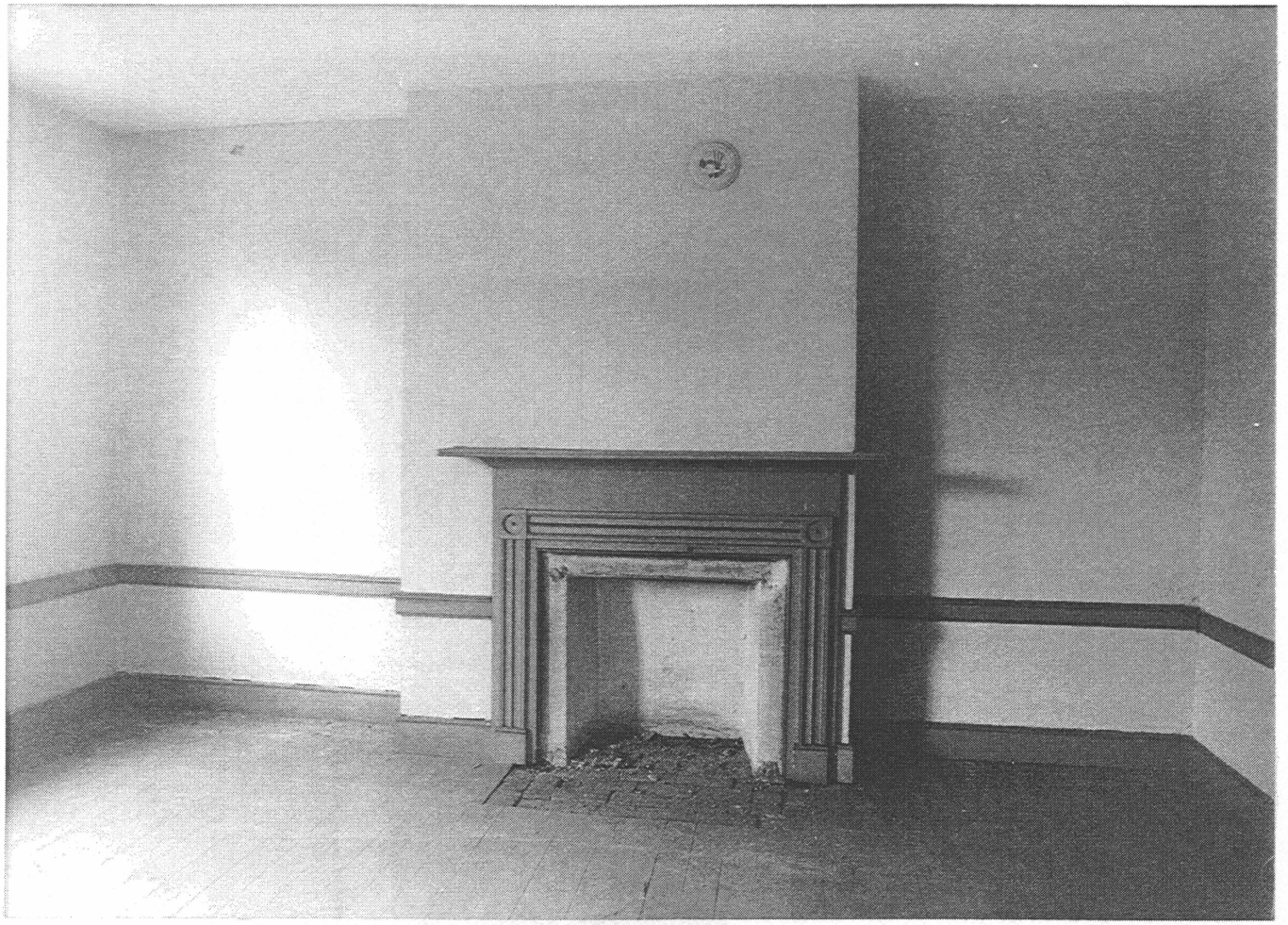

Photo 27
Sherrick House, 2nd floor northwest bedroom wall and fireplace, looking north.
Photographed by David Amundson.
May, 1994

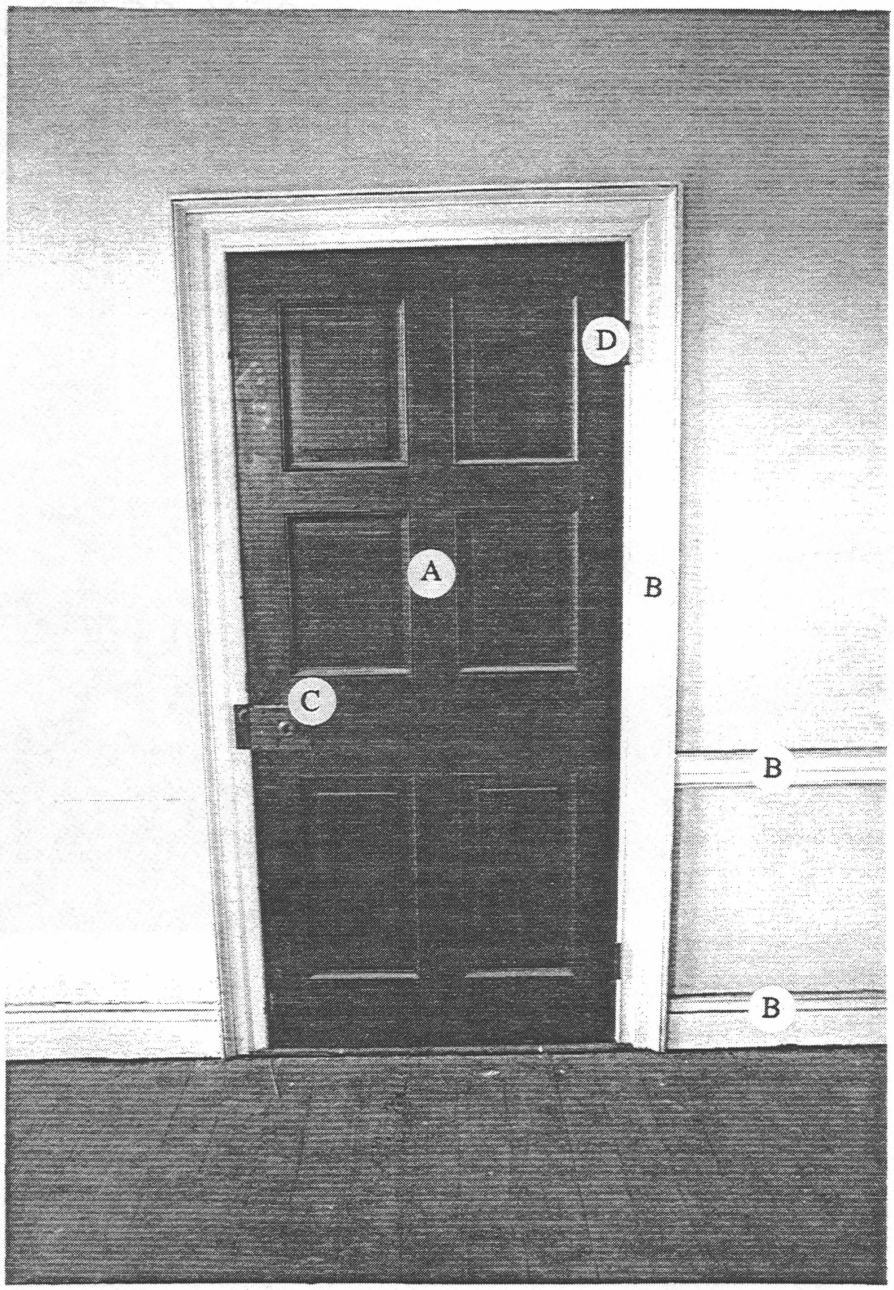

Photo 28
Sherrick House, door from entry hall to dining room.

A) Six panel wood door with grained finish.
B) Wood base, wainscot and door casing, moulding set "A".
C) Carpenter latch.
D) Baldwin hinges, typical.



Photo 28
Sherrick House, door from entry hall to dining room.
Photographed by David Amundson.
May, 1994

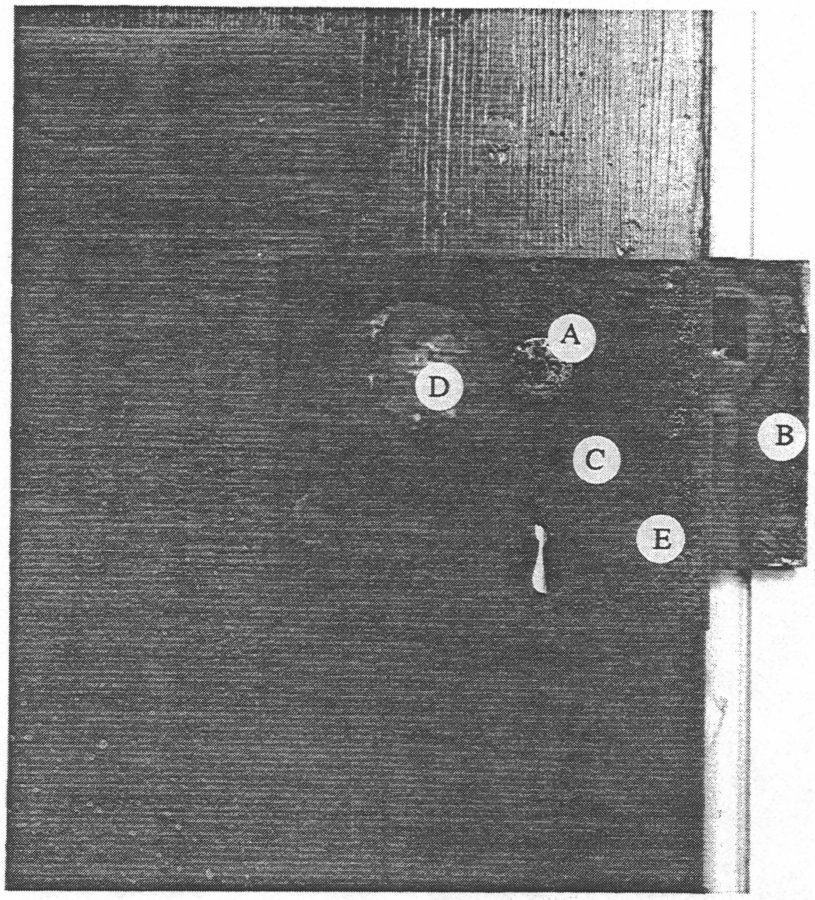

Photo 29
Sherrick House, Carpenter latch (box side) and door casing.

A) Brass patent seal.
B) Cast iron strike with brass strike plate.
C) Wrought iron lock case.
D) Brass knob.
E) Unpointed screws, typical.

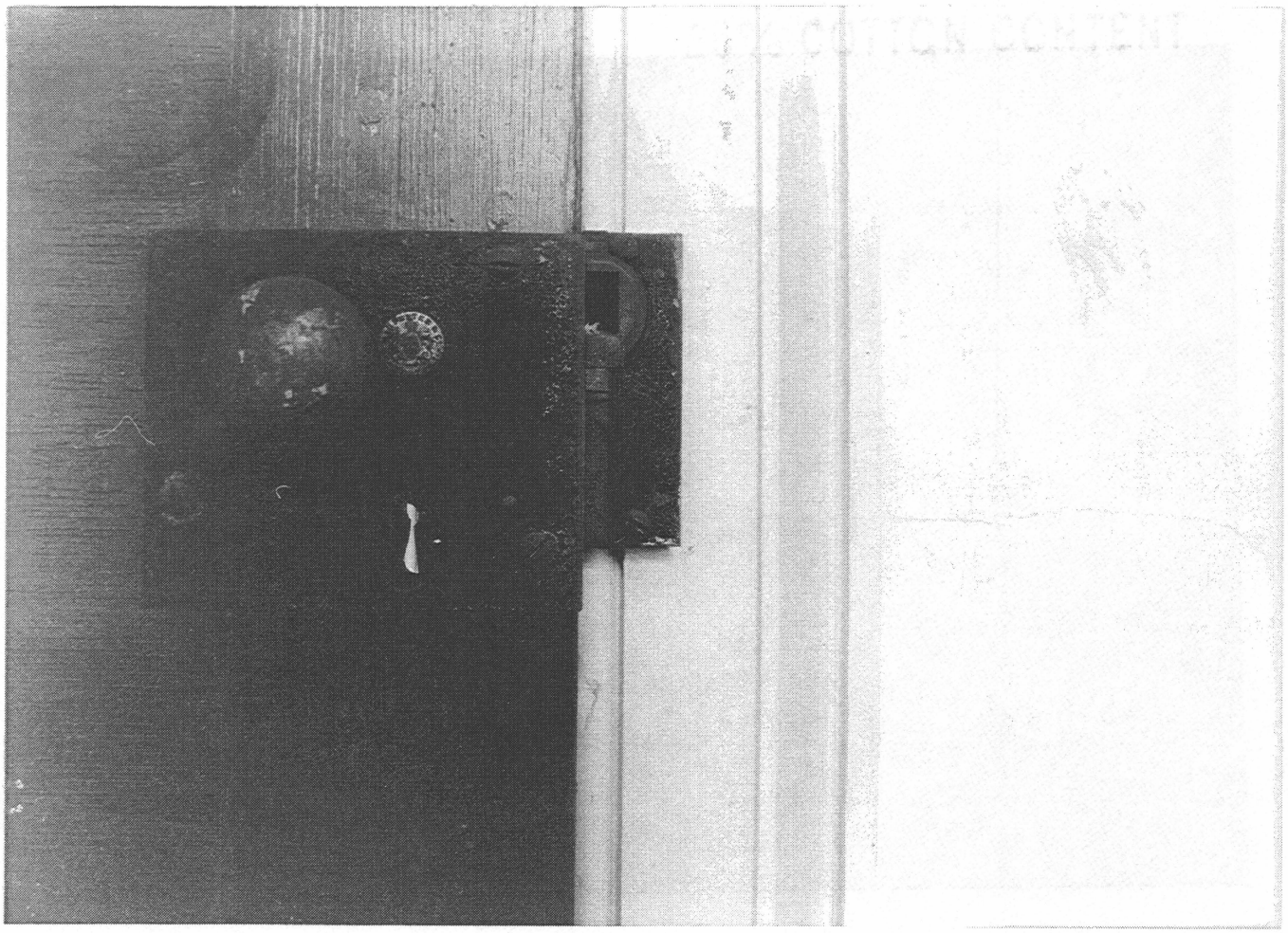

Photo 29
Sherrick House, Carpenter latch (box side) and door casing.
Photographed by Reed Black.
April, 1994

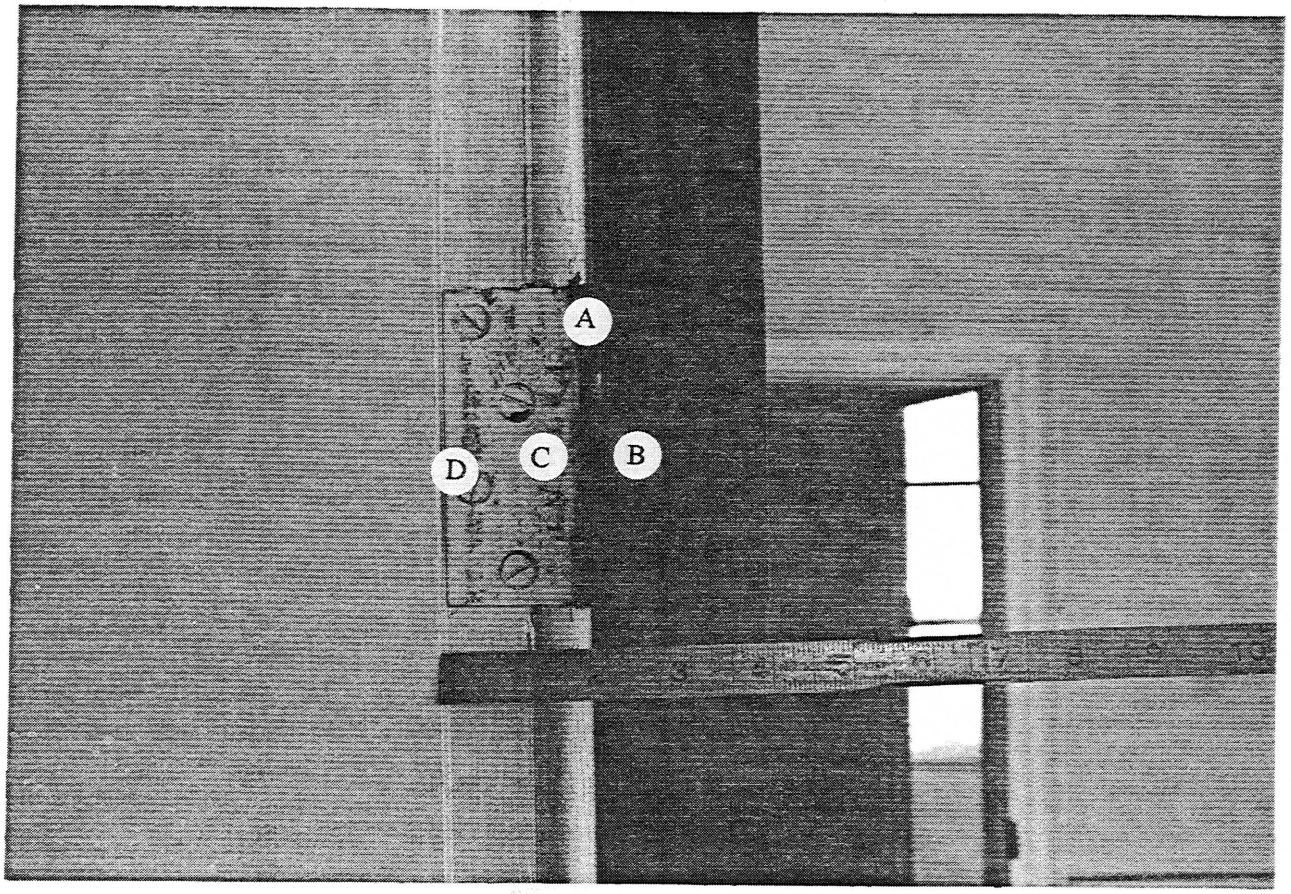

Photo 30
Sherrick House, Baldwin door hinge detail.

A) 4" x 4" five jointed cast iron butt hinge.
B) Maker's mark.
C) Patent mark.
D) Unpointed screw, typical.



Photo 30
Sherrick House, Baldwin door hinge detail.
Photographed by Reed Black.
April, 1994

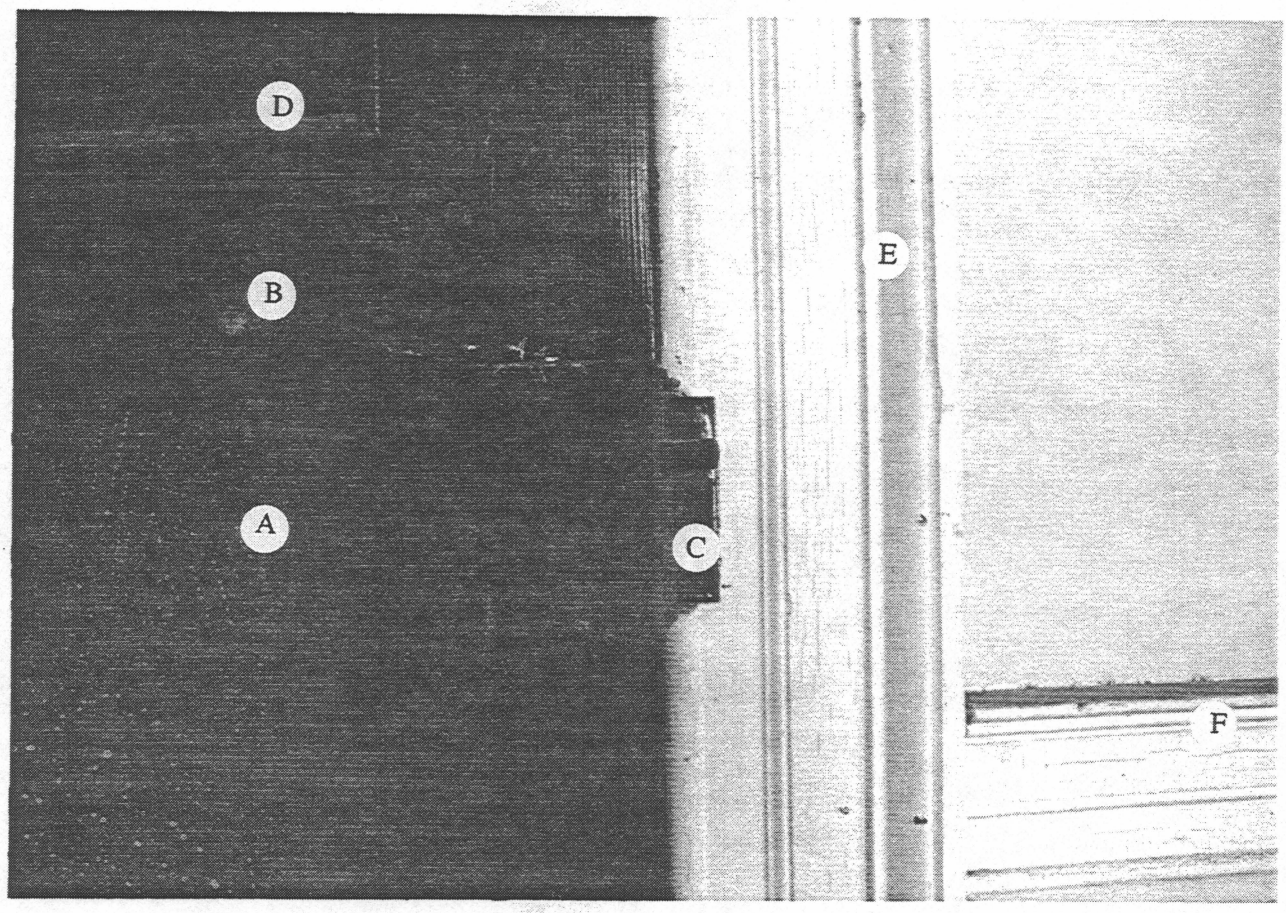

Photo 31
Sherrick House, elbow latch (box side), door casing and chair rail, viewed from dining room side.

A) Wrought iron lock case.
B) Elbow lever.
C) Cast iron strike.
D) Door panel with applied moulding.
E) Door casing, moulding set "A".
F) Chair rail, moulding set "A".

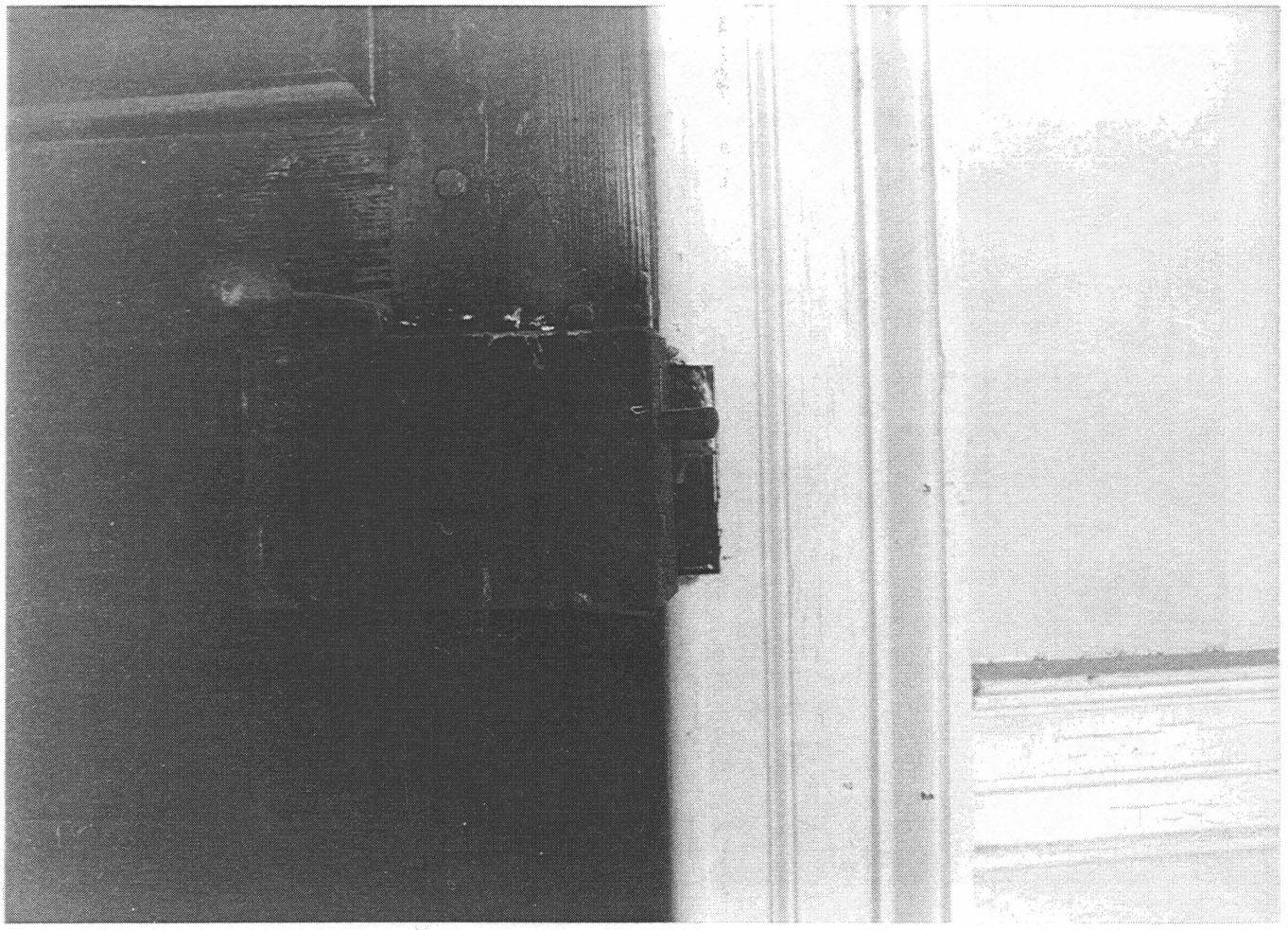

Photo 31
Sherrick House, elbow latch (box side), door casing and chair rail, viewed from dining room side.
Photographed by Reed Black.
April, 1994

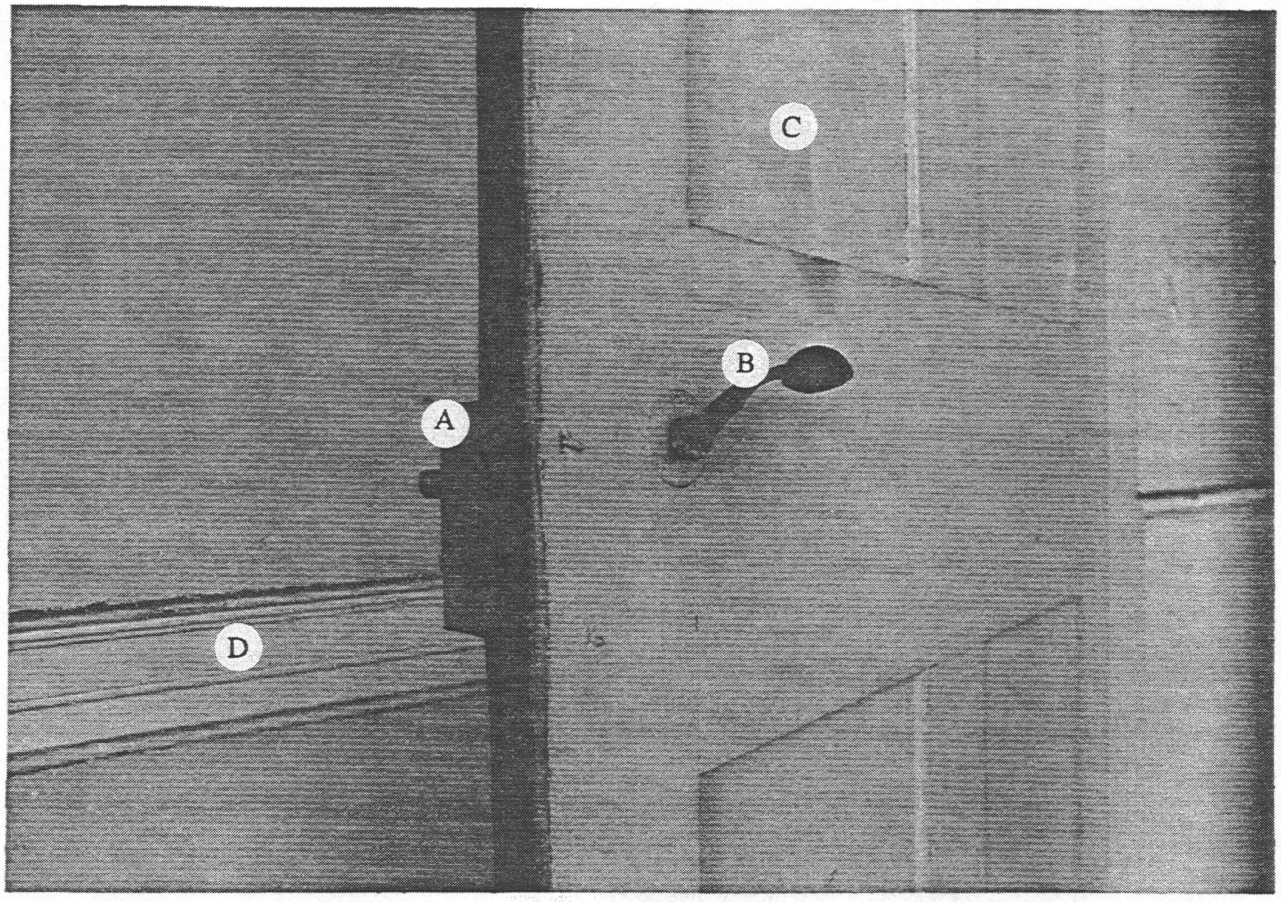

Photo 32
Sherrick House, panel door and elbow latch, stair side of door, opened into dining room.

A) Wrought iron lock case.
B) Elbow lever.
C) Flat door panel with no moulding.
D) Chair rail, moulding set "A".

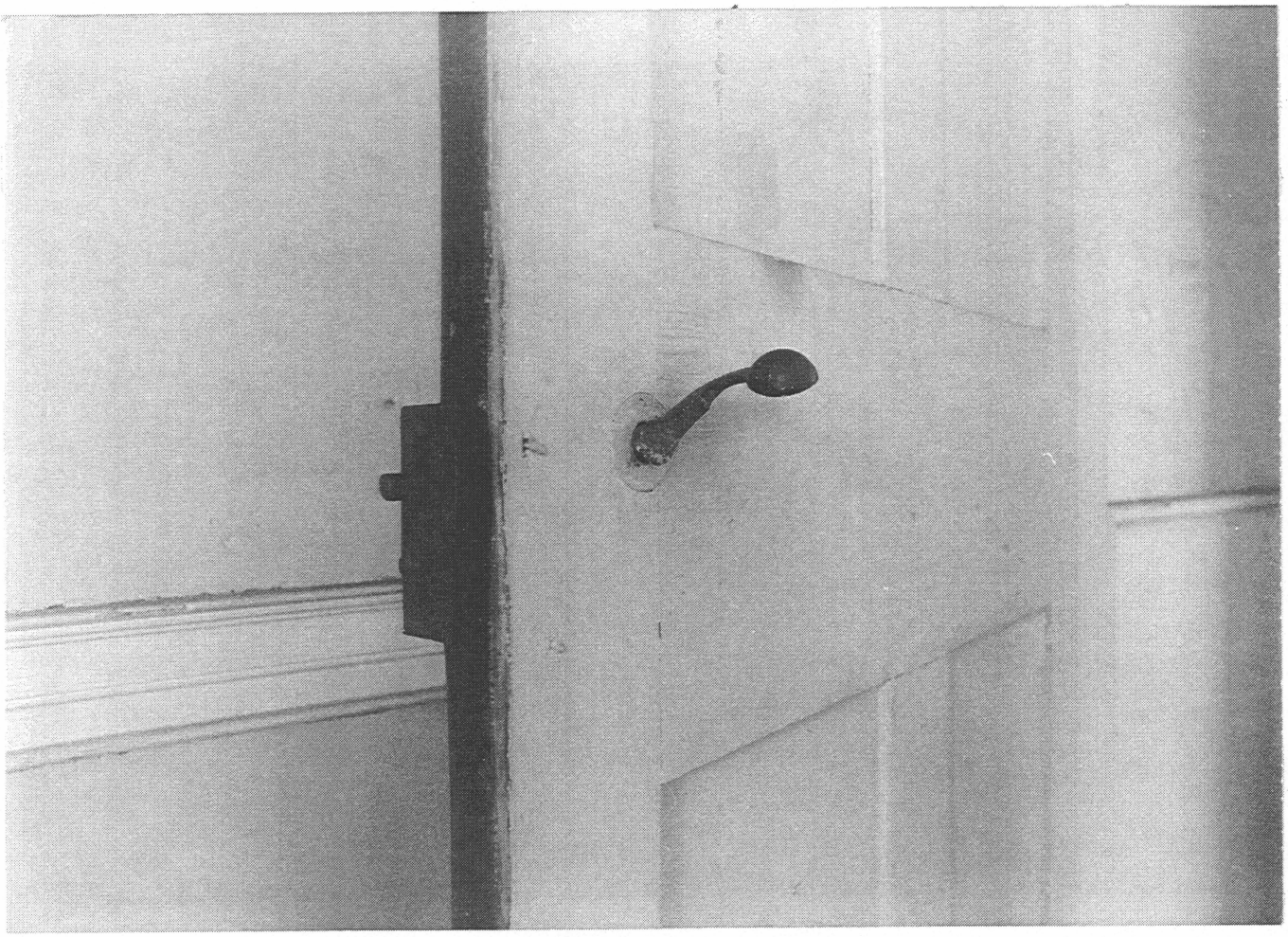

Photo 32
Sherrick House, panel door and elbow latch, stair side of door opened into dining room.
Photographed by Reed Black.
April, 1994

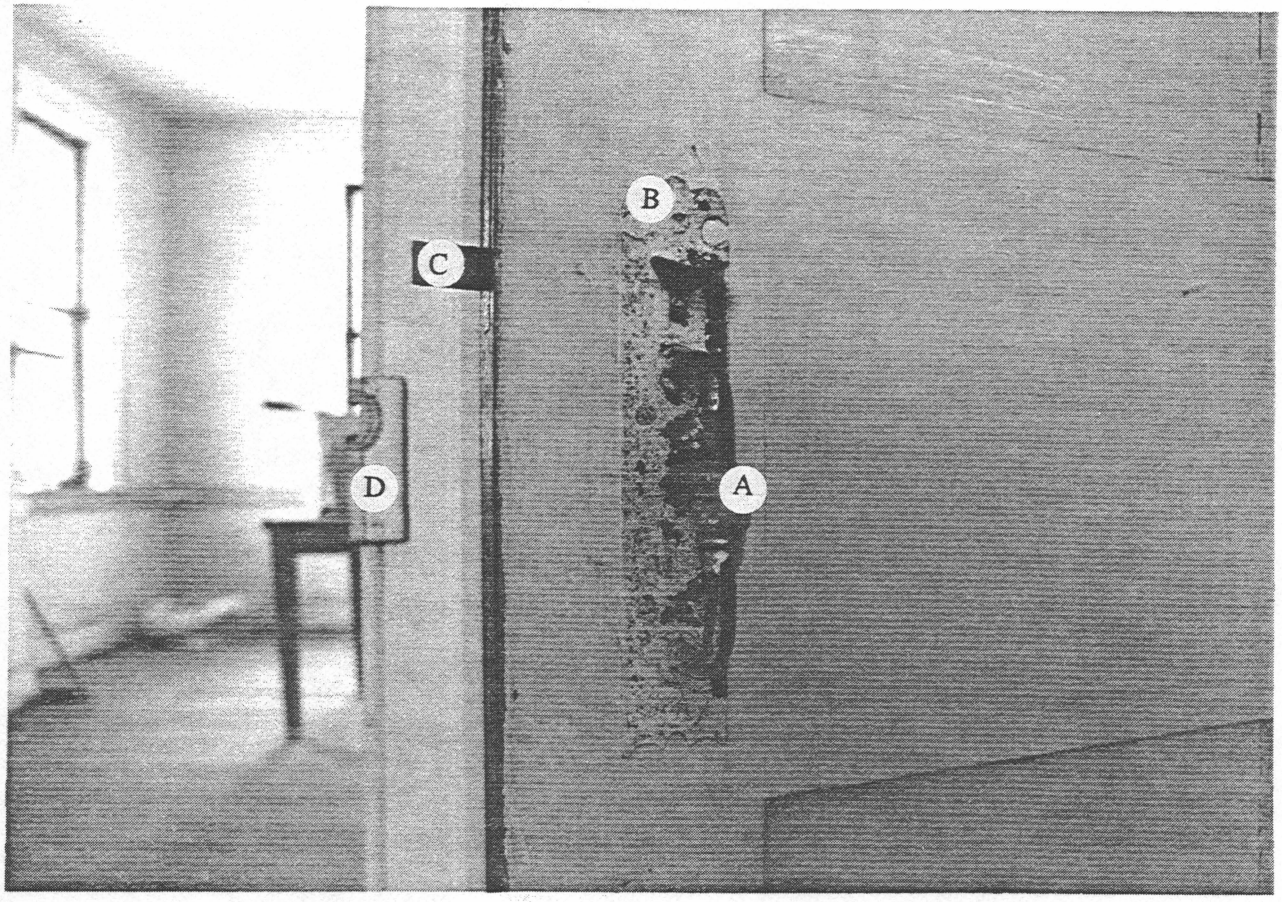

Photo 33
Sherrick House, Norfolk latch at door to stairs from servant's room to basement.

A) Cast iron grasp.
B) Machine-rolled sheet iron backplate.
C) Iron lift bar.
D) Strike plate for Carpenter latch beyond.

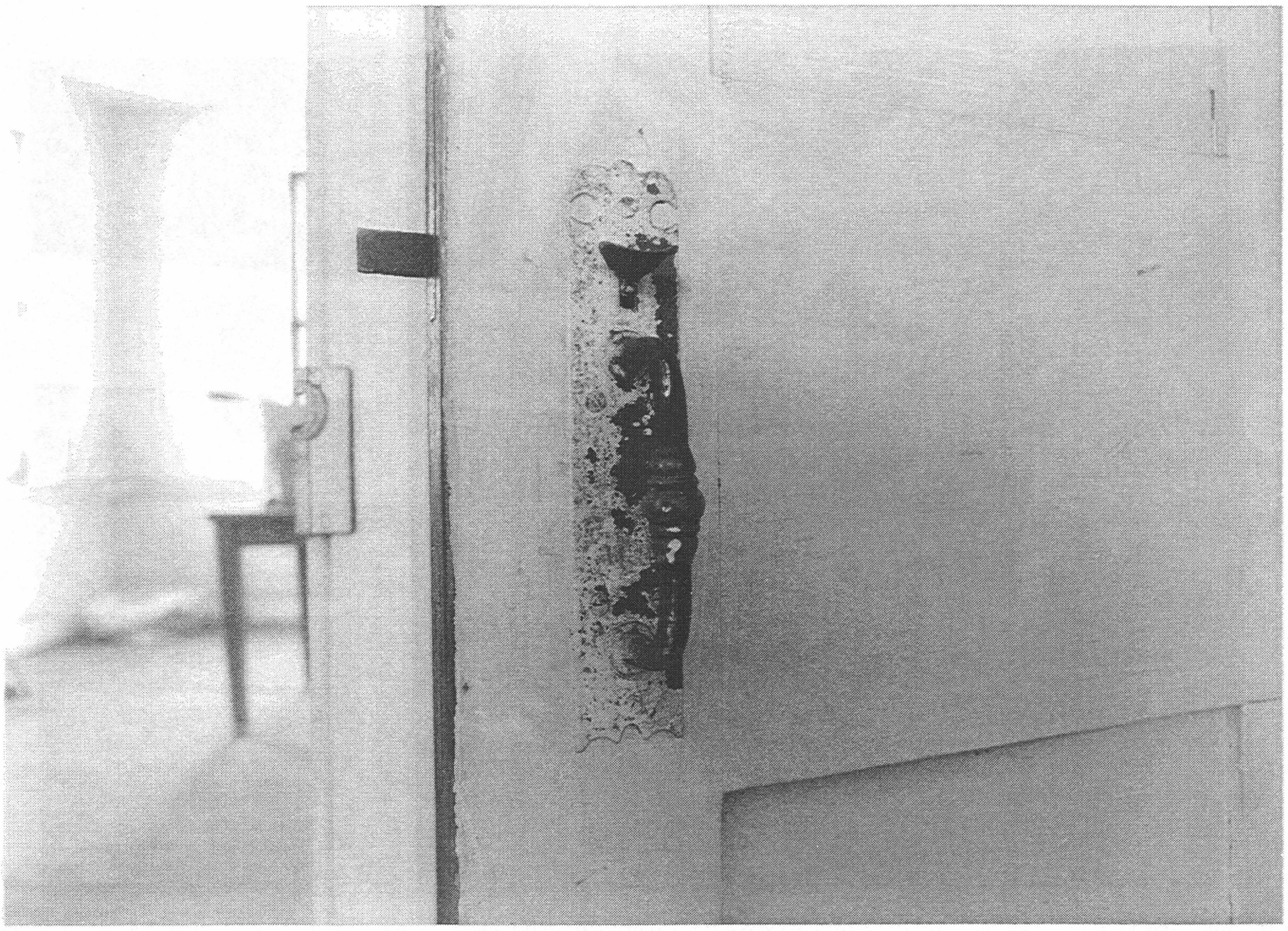

Photo 33
Sherrick House, Norfolk latch at door to stairs from servant's room to basement.
Photographed by Reed Black.
April, 1994

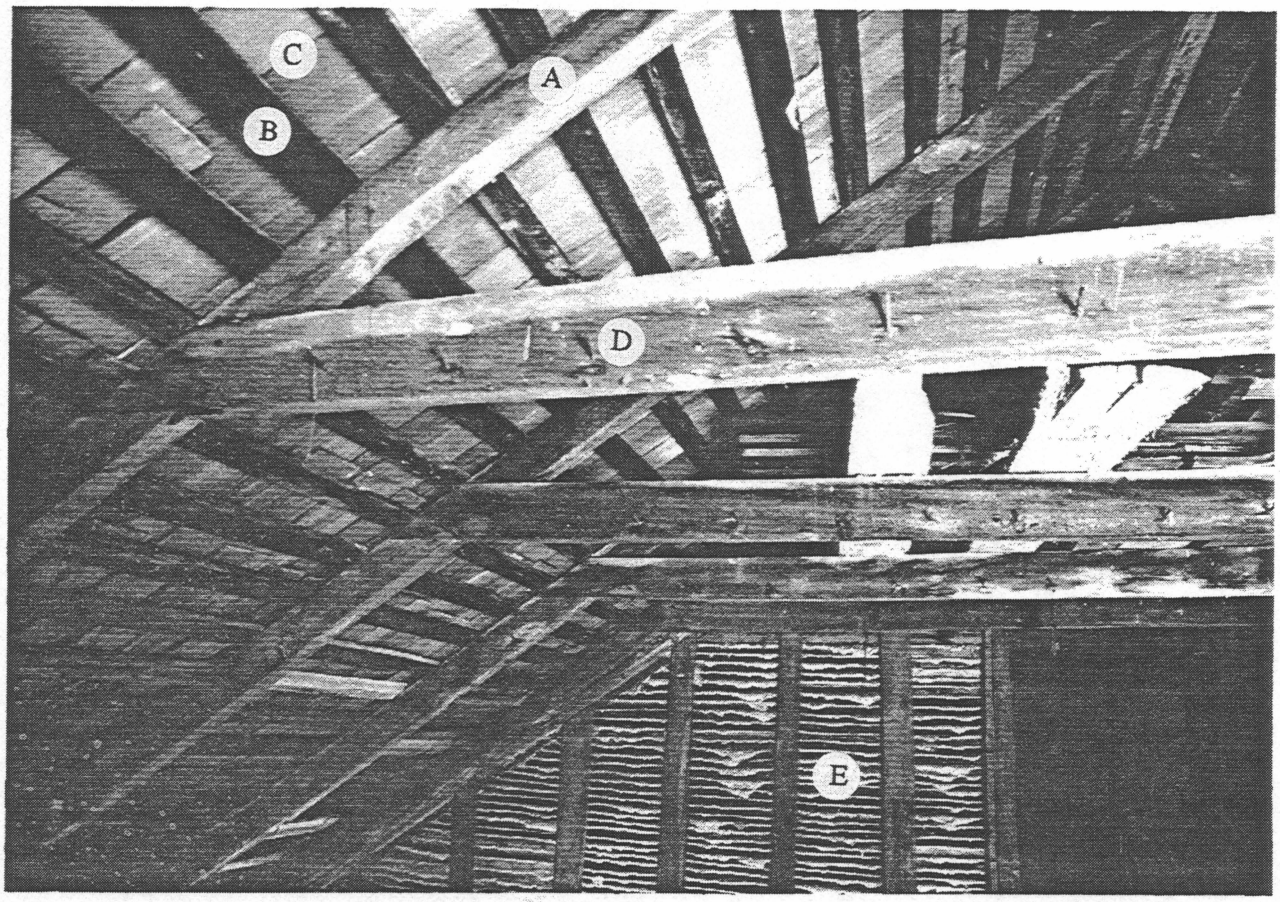

Photo 34
Sherrick House, detail of attic framing.

A) Tapered roof rafter, typical.
B) Wood lath, typical.
C) Underside of wood shingles, typical.
D) Wood collar tie, connected to rafter with nailed lap joint.
E) Back side of wood lath and plaster wall at stair to attic.



Photo 34
Sherrick House, detail of attic framing.
Photographed by David Amundson.
May, 1994

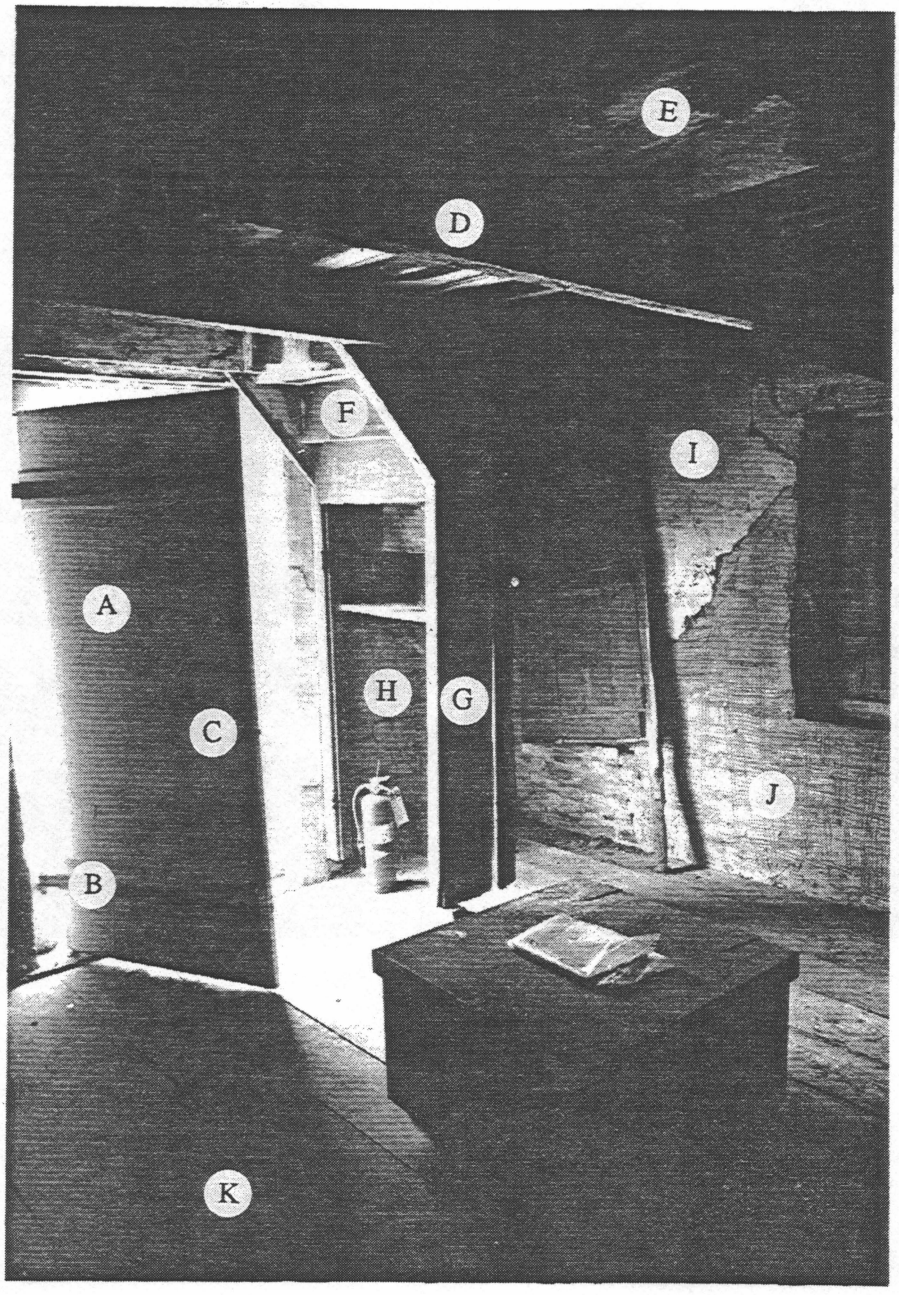

Photo 35
Sherrick summer kitchen, main floor looking northwest.

A) New board door.
B) New iron bean end pintel hinge, typical.
C) New suffolk latch.
D) Attic floor joists.
E) Attic tongue-and-groove flooring.
F) Stairs to attic, bottom section missing.
G) Beaded board partition; bottom of support rotted, rests on wood block.
H) Unplastered brick below stair.
I) Old plaster on brick.
J) New plaster scratch coat on brick.
K) New face nailed 3/4" wood floor.

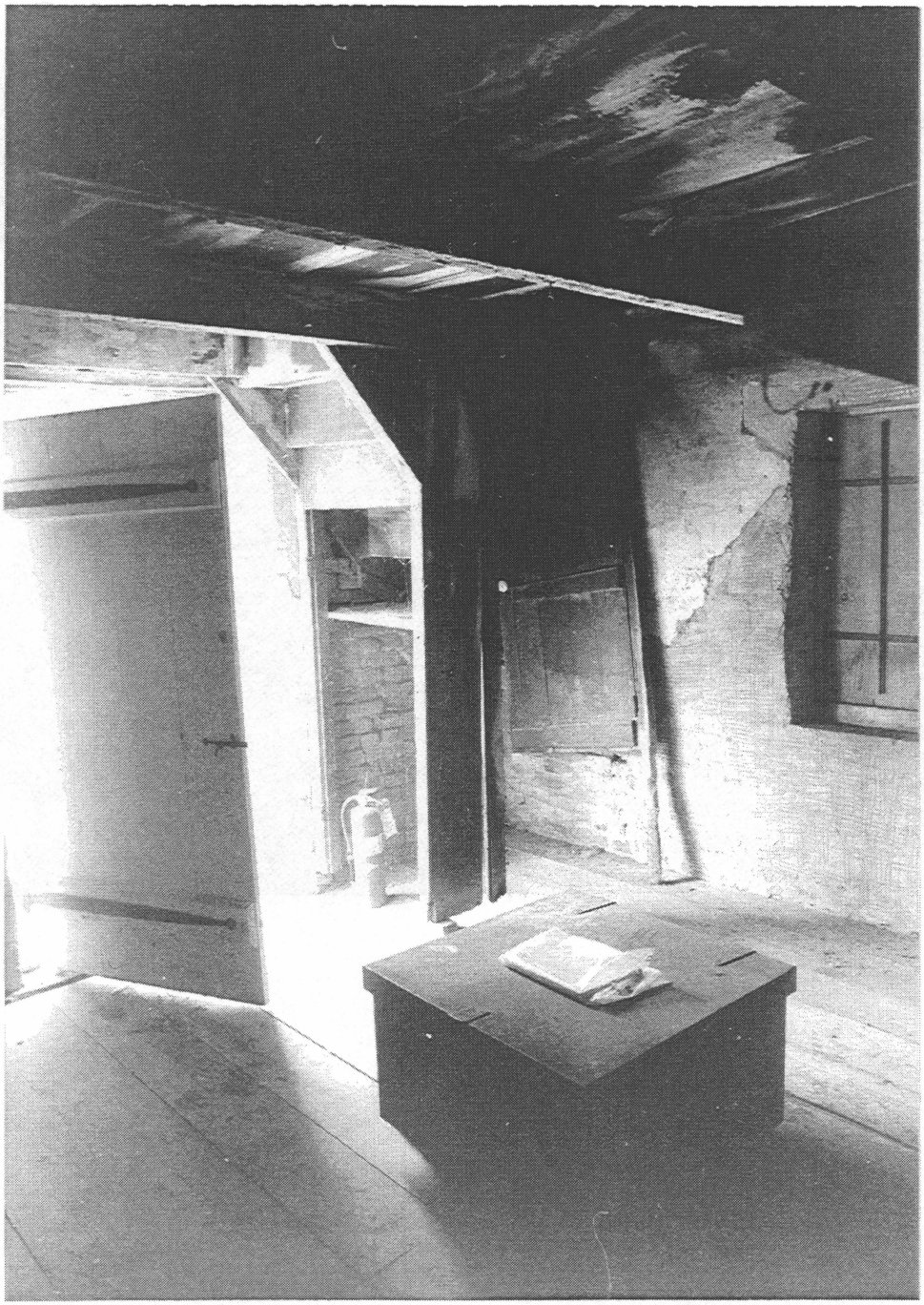

Photo 35
Sherrick summer kitchen, main floor looking northwest.
Photographed by Reed Black.
April, 1994

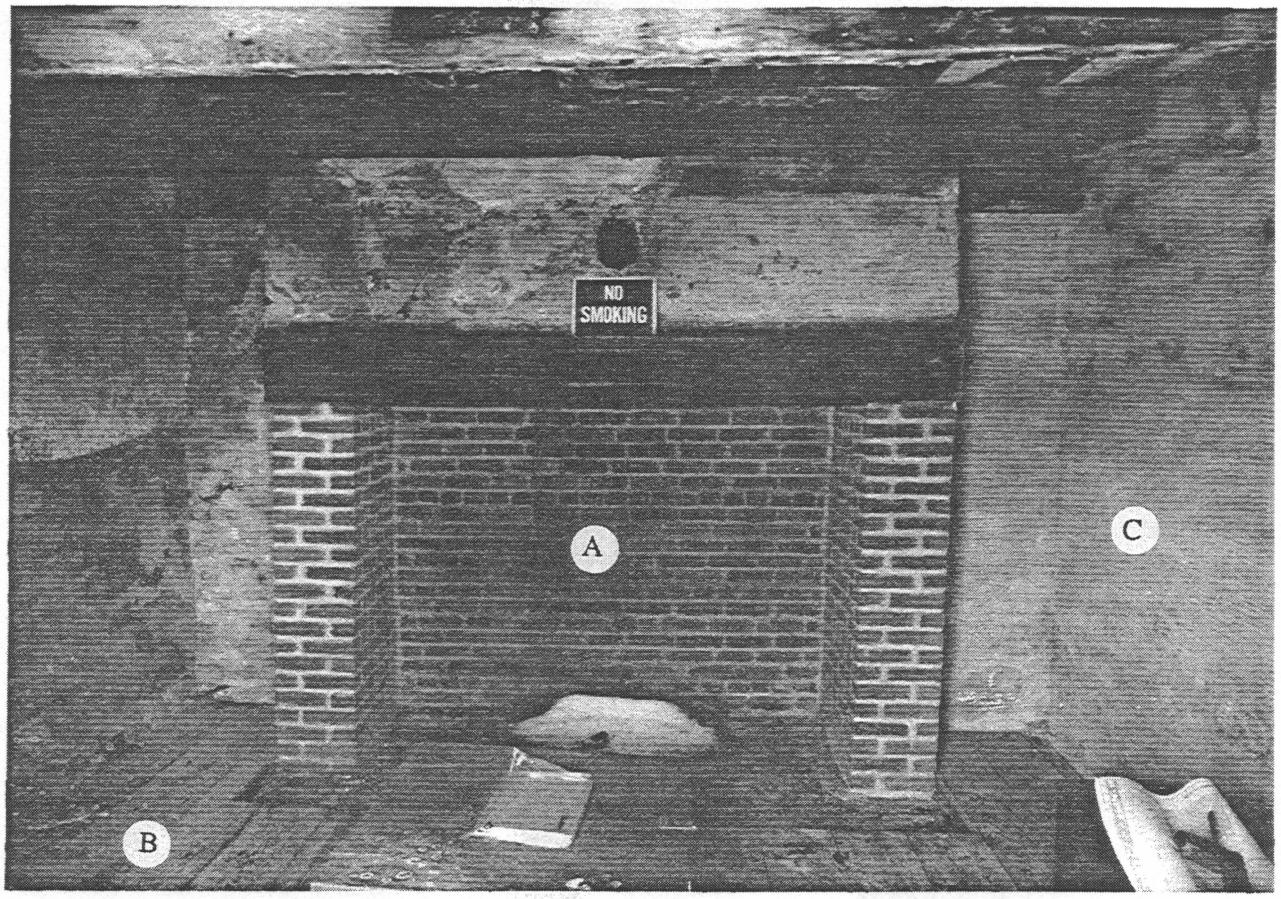

Photo 36
Sherrick summer kitchen fireplace.

A) New brick fireplace.
B) New face nailed 3/4" wood floor.
C) New plaster scratch coat on brick.

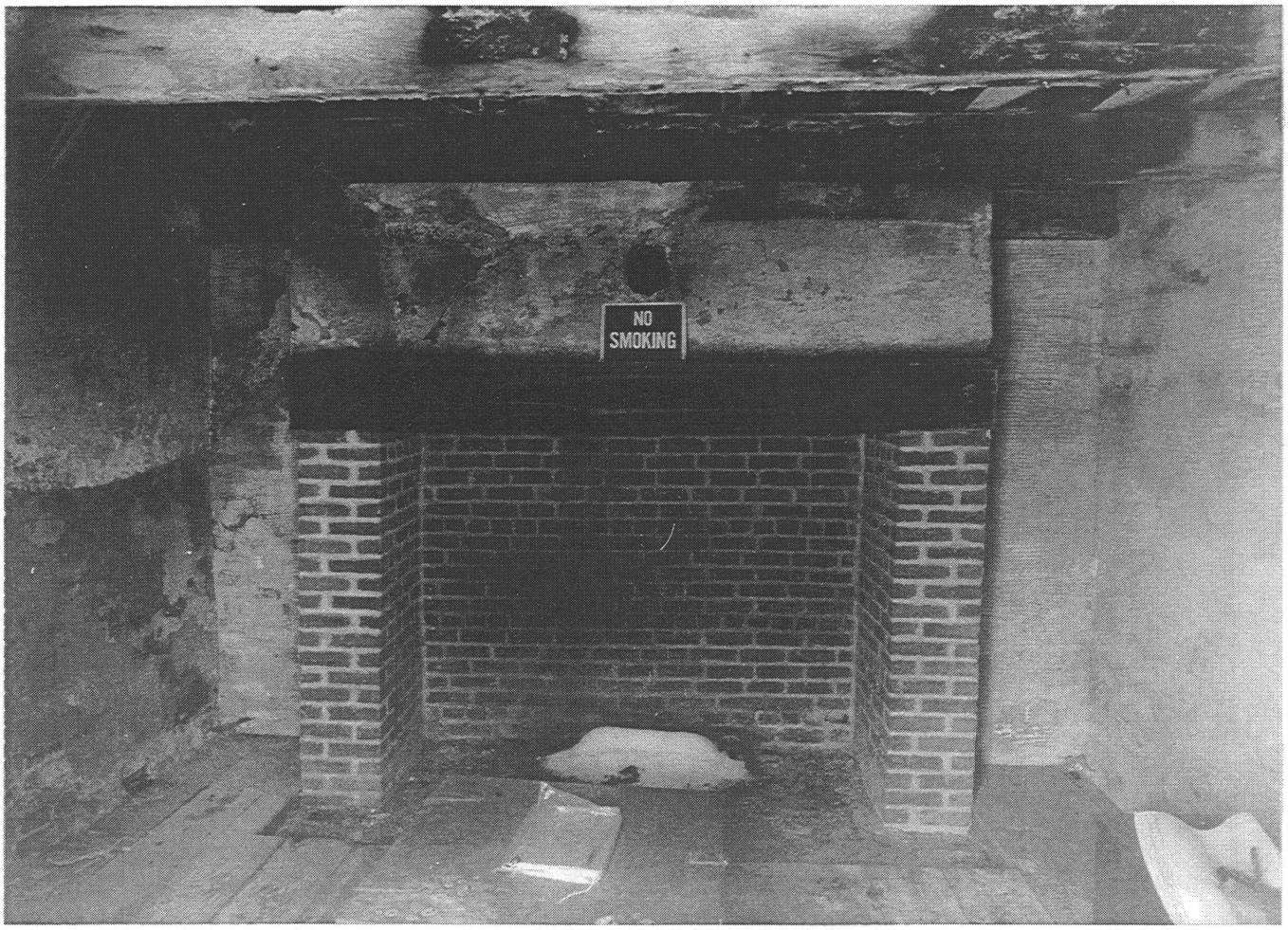

Photo 36
Sherrick summer kitchen fireplace.
Photographed by Reed Black.
April, 1994

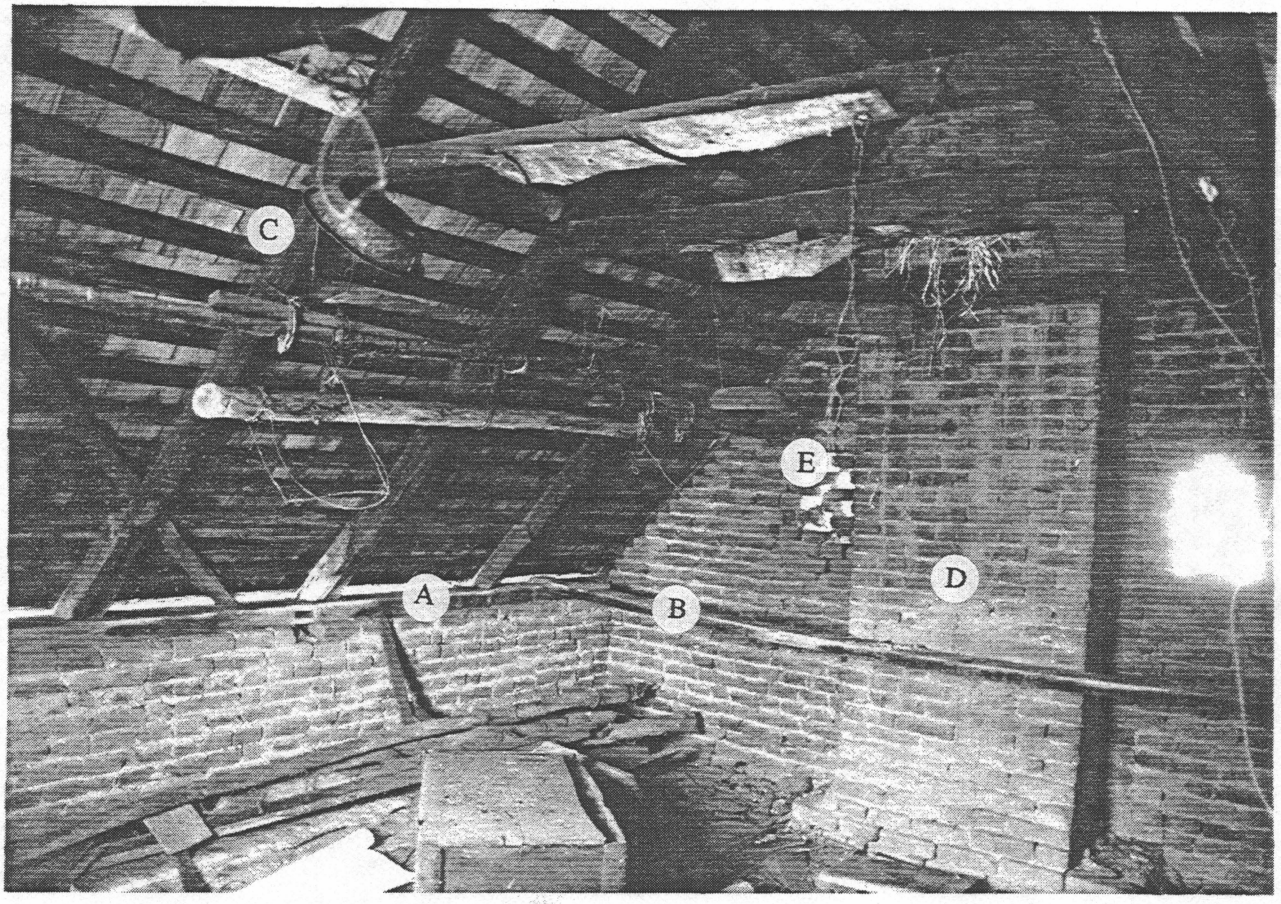

Photo 37
Sherrick summer kitchen, looking east at upper level.

A) 6" x 3" wood plate on top of brick wall.
B) 5 1/2" wood collar dovetailed into wood plate.
C) Wood rafters, furring strips and shingles.
D) Brick chimney.
E) Diamond pattern ventilation openings in the gable end brickwork, typical.



Photo 37
Sherrick summer kitchen, looking east at upper level.
Photographed by Reed Black.
April, 1994

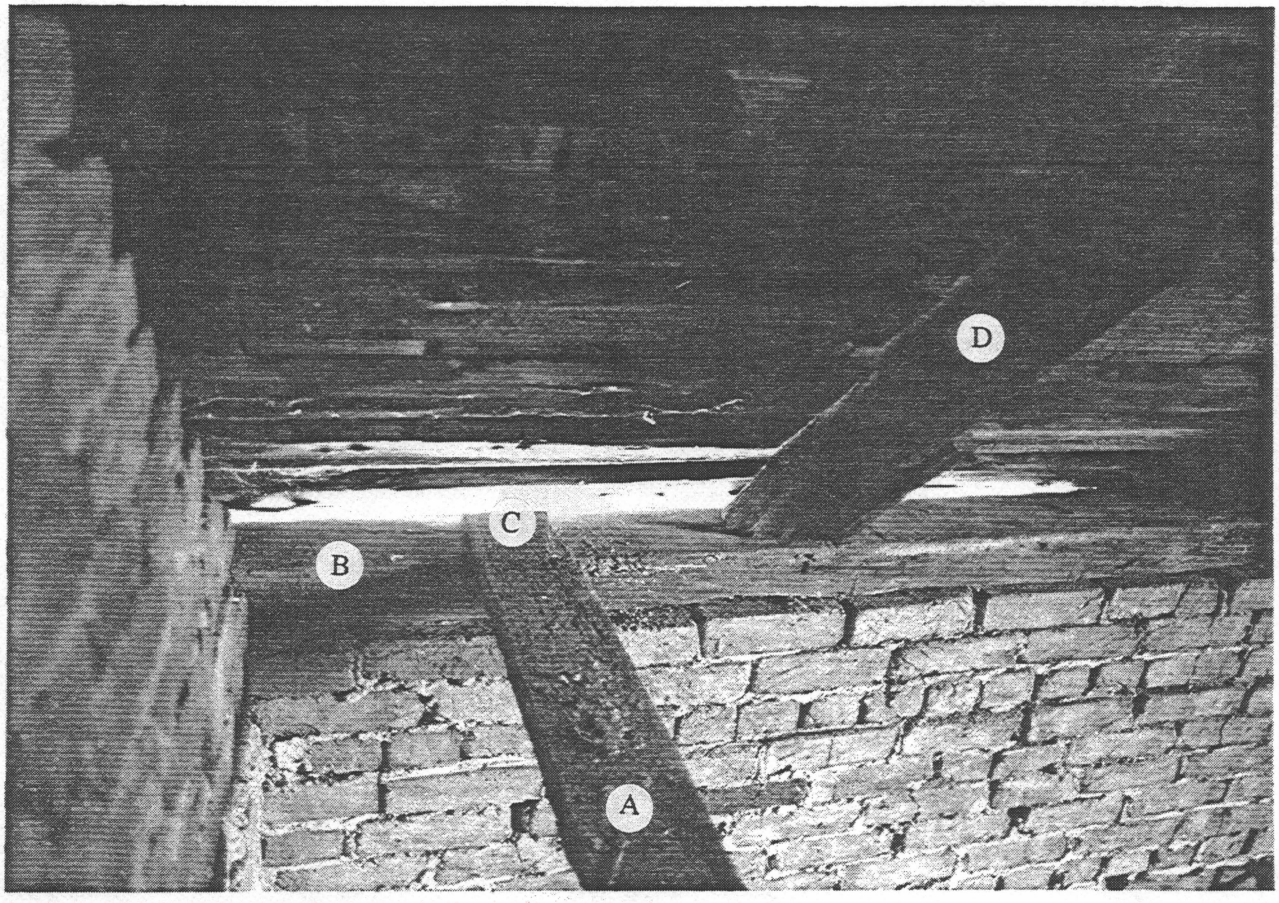

Photo 38
Sherrick summer kitchen, tie beam, rafter and wall plate.

A) Tie beam.
B) Wall plate.
C) Dovetail connection between tie beam and wall plate.
D) Wood rafter.



Photo 38
Sherrick summer kitchen, tie beam, rafter and wall plate.
Photographed by Reed Black.
April, 1994

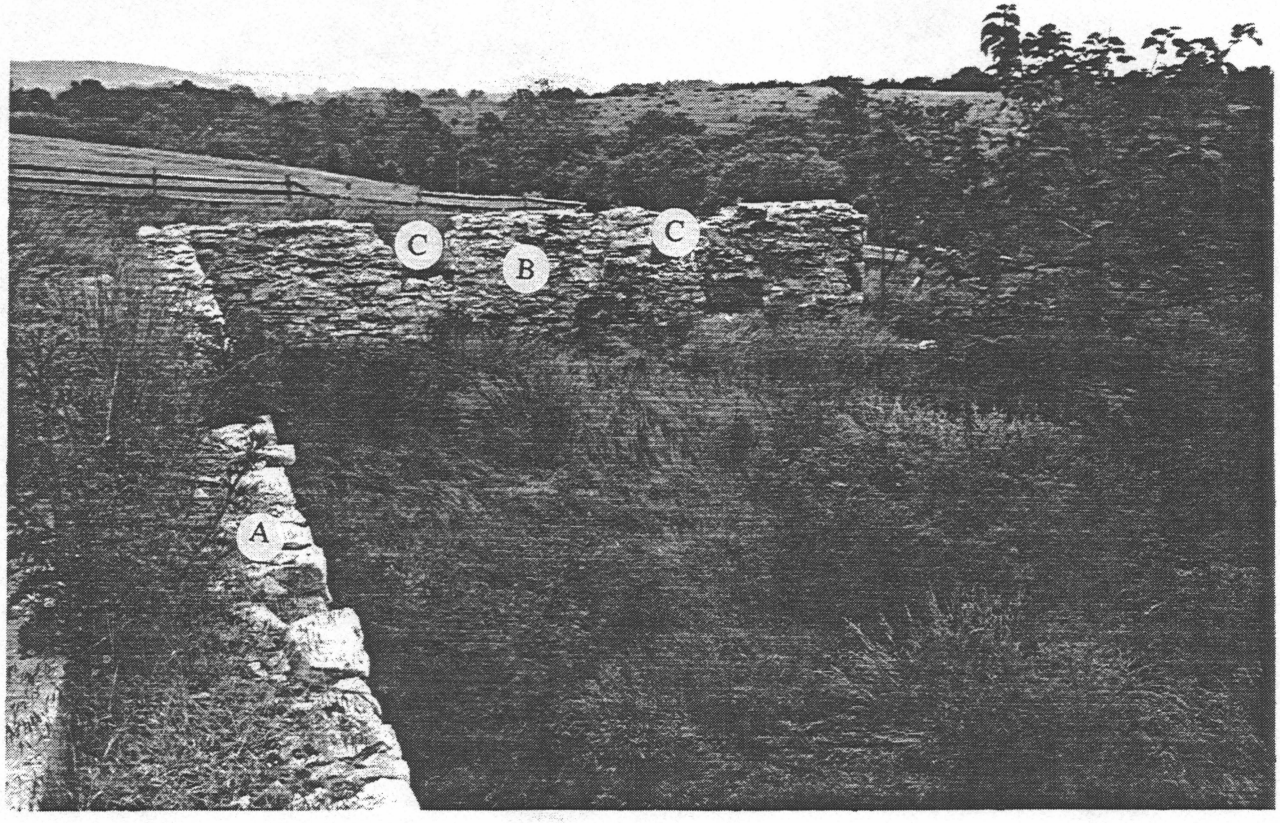

Photo 39
Sherrick barn foundation ruins, from north wall looking east.

A) Rubble stone north wall.
B) Rubble stone east wall.
C) Openings in east wall for windows.



Photo 39
Sherrick barn foundation ruins, from north wall looking east.
Photographed by David Amundson.
May, 1994

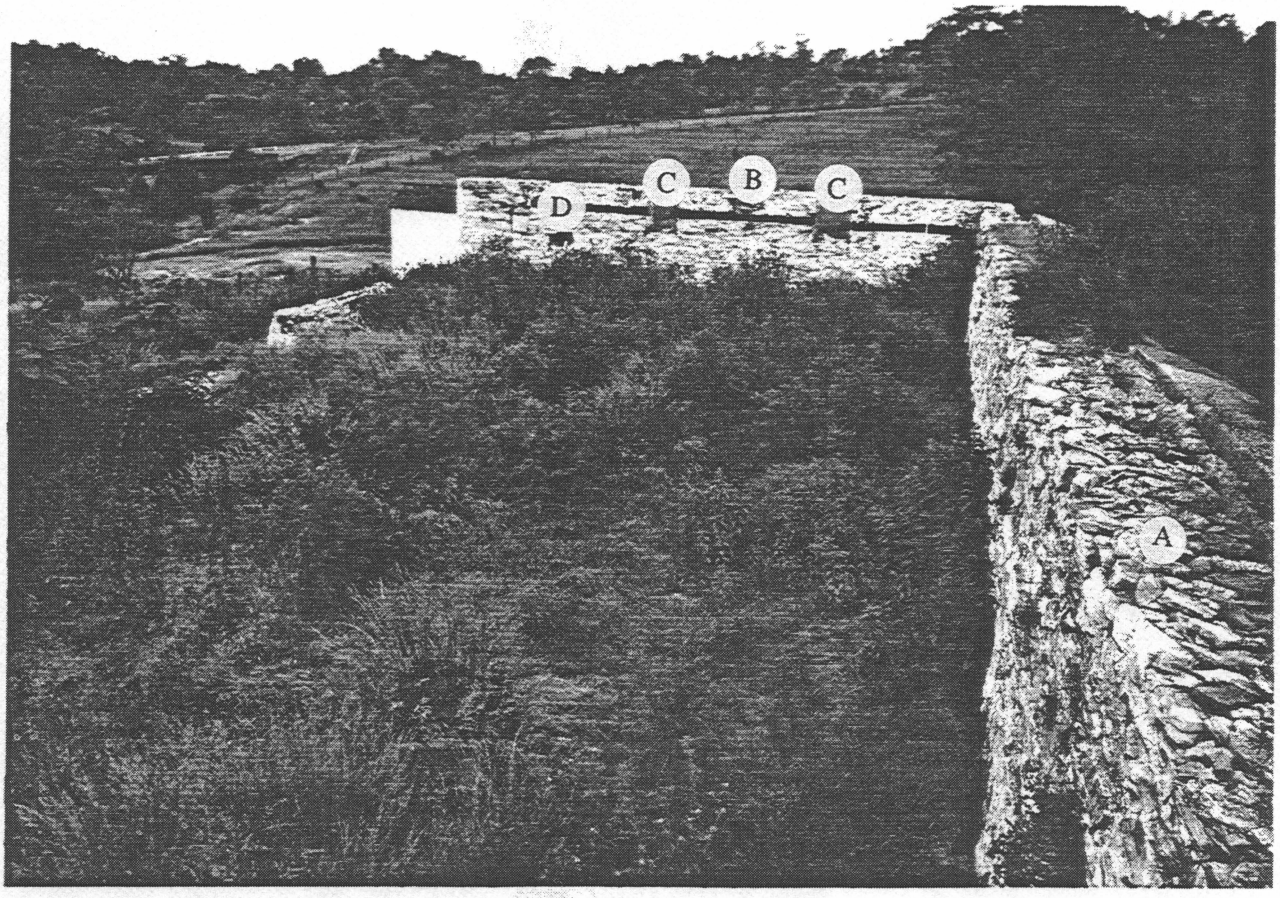

Photo 40
Sherrick barn foundation ruins, from north wall looking west.

A) North wall.
B) West wall.
C) Openings in west wall for windows.
D) Charred wood ledger.

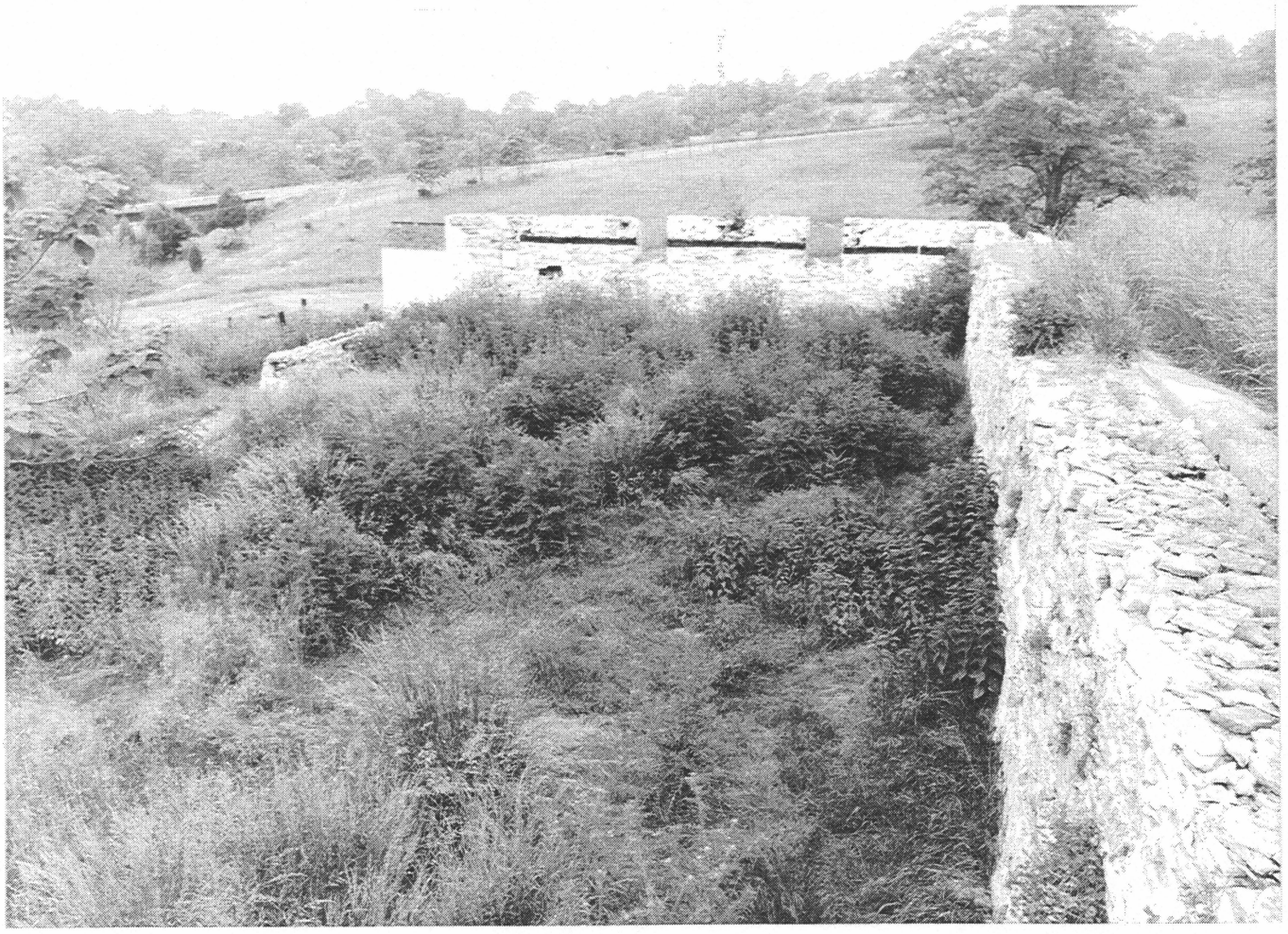

Photo 40
Sherrick barn foundation ruins, from north wall looking west.
Photographed by David Amundson.
May, 1994

BIBLIOGRAPHY

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BOOKS AND PERIODICALS

Anderson, Dean L. "A Carpenter Lock from Minnesota's Historic Fort Snelling." Journal of the Association for Preservation Technology, Vol IX, No. 4 (1977), p. 67-72. *Discussion of the history, manufacture and operation of a Carpenter latch similar to the latches found at the Sherrick House.*

Cotton, J. Randall. "Knobs & Latches." Old House Journal, Nov./Dec. 1987, p. 37-43. *Description of different types of door hardware and when, where and by whom they were made.*

Frassanito, William A. Antietam, the Photographic Legacy of America's Bloodiest Day. New York: Charles Scribner's Sons, 1978. *A study of the historic photos made of the Antietam Battlefield by Alexander Gardner. Maps and modern photos show locations of historic photos. Includes 1862 photograph of the Sherrick House and farm from across the road and description of the family and the farmstead during and after the battle.*

Glassie, Henry. Pattern in the Material Folk Culture of the Eastern United States. Philadelphia: University of Pennsylvania Press, 1968. *A study of the development and spread of architecture and crafts in the eastern U.S.*

Labine, Clem. "How to Research and Date Your Old House." The Old-House Journal, Vol. IV, No. 10 (October 1976) p. 1, 8-11. *A guide to determining the date of a building using hardware, fasteners, etc.*

McNulty, G. F. "Henry C. Mercer and Dating by Mouldings." Bulletin of the Association for Preservation Technology, Vol X, no.4 (1978), p. 3-19. *Challenge to Mercer's 1923 paper.*

Mercer, Henry C. The Dating of Old Houses. 1923; rpt. Bucks County, Pennsylvania: Bucks County Historical Society, 1976. *A standard guide to determining the age of historic American houses.*

Miller, R.C. The Battlefield of Antietam. Sharpsburg, Maryland, 1906; rpt. Hagerstown, Maryland: Hagerstown Bookbinding & Printing Co., n.d. *Descriptions of the Battle of Antietam and the battlefield.*

Park, Sharon C. "The Repair and Replacement of Historic Wooden Shingle Roofs." Preservation Briefs, 19. Washington, D.C.: U.S. Government Printing Office, n.d. *A study of historic wood shingle roofs, including illustrations and discussion of a "long biaxially tapered handsplit" shingle roof, or Dutch lap roof.*

BOOKS AND PERIODICALS (CONT'D)

Schildt, John W. Drums Along the Antietam. Parsons, W. Va.: McClain, 1972. General reference on the Battle of Antietam. *Includes discussion of the Sherrick Farm during the battle (pages 216-217).*

Schildt, John W. Antietam Hospitals. Chewsville, Md.: Antietam Publications, 1987. *A discussion of the location, operation and staffing of the field hospitals tending wounded soldiers at Antietam.*

Sears, Stephen W. Landscape Turned Red - The Battle of Antietam. New York: Ticknor & Fields, 1983. *A general account of the Battle of Antietam.*

Snell, Charles W. and Brown, Sharon A. Antietam National Battlefield and National Cemetery, An Administrative History. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1986. *Narrative of the founding, growth and operation of the Antietam National Battlefield.*

Streeter, Donald. "The Historic Development of Hand Forged Iron Builders' Hardware." In The Technology of Historic American Buildings, Studies of the Materials, Craft Processes, and the Mechanization of Building Construction. Ed. Ward Jandl. Washington, D.C.:Foundation for Preservation Technology, 1983, p. 1-34. *A chronology of iron hardware. See Footnote 1 in this article for further references to this topic.*

Streeter, Donald. "Early American Wrought Iron Hardware: H and HL Hinges, Together with Mention of Dovetail and Cast Iron Butt Hinges." In Bulletin of the Association for Preservation Technology, Vol. V, No. 1, 1973, p. 22-49. *Photographic survey and description of different types of hinges.*

TECHNICAL REFERENCES

Amburgey, Terry L. "Wood Inhabiting Fungi." In Pest Control. June, 1974, pp. 22-25. *The causes and prevention of fungal damage to wood.*

The BOCA National Building Code/1993. Twelfth Edition. Country Club Hills, Illinois: Building Officials and Code Administrators International, Inc., 1993. *General building code used by the local building department.*

Design Values for Wood Construction, NDS Supplement. Washington, D.C.: National Forest Products Association, 1991. *Reference for wood design values.*

NFPA 70. National Electrical Code. Quincy, Massachusetts: National Fire Protection Association, 1990. *Applicable code for residential electrical systems.*

TECHNICAL REFERENCES (CONT'D)

One and Two Family Dwelling Code. Falls Church, Virginia: The Council of American Building Officials, 1992. *Residential building code used by the local building department.*

Ramsey, Charles George, Harold Reeve Sleeper and John Ray Hoke. Architectural Graphic Standards. Eighth Edition. New York: John Wiley & Sons, 1988. *General construction reference.*

Tarkow, Harold. "The Characterization and Preservation of Wood." In Preservation and Conservation in Principles and Practice. Washington, D.C.: Smithsonian Institution Press, 1976, pp. 101-115. *General reference on wood deterioration.*

Uniform Federal Accessibility Standards. Washington, D.C.: U.S. Government Printing Office, 1986. *The standards used for Federal Government facilities regarding handicapped accessibility.*

MANUSCRIPTS AND UNPUBLISHED REPORTS

Brown, Jim, Antietam District Ranger. "Sherrick House and Farm." 1973. *Description, assessment of historic significance and assessment of condition of buildings on the Sherrick Farm. From file at Antietam Visitor Center Library, "H30 Sherrick Farm."*

Christensen, E. "Memorandum: Living History Interpretation, Antietam." February 14, 1973. *Proposal for incorporating "living history" programs at Antietam, including using the Sherrick Farm as a period farm. From file at Antietam Visitor Center Library, "H34 Sherrick Farm (Federal)."*

Clark, Ramsey. Letter to Honorable Stewart L. Udall, with enclosure. October 28, 1968. *Letter from the Attorney General to the Secretary of the Interior regarding final title opinions for purchased property, including Sherrick Farm. From file at Antietam Visitor Center, "L1425 Land Acquisition Tract 02-109."*

Cross, Fred Wilder. "Antietam - Sept. 17, 1862." 1921. CRBIB number 010066 (NPS Cultural Resource Bibliography number). *Description of the Battle of Antietam and observations of the battlefield, as seen in the early 1920's. Includes description of the battle near the Sherrick House and a brief description of the house.*

Dorsey, Mr. and Mrs. James. Letter to Mr. Anderson. September 26, 1967. *Letter from owner of the Sherrick Farm to the NPS regarding the purchase of the farm. From file at Antietam Visitor Center, "L1425 Land Acquisition Tract 02-109."*

MANUSCRIPTS AND UNPUBLISHED REPORTS (CONT'D)

Franzen, Archie W. "Historic Structures Report, Architectural Data Section, Survey Report for Piper Farm, Dorsey Farm, Spielman Farm." October, 1968. CRBIB number 001064 (NPS Cultural Resource Bibliography number). *Architectural Data Section for Wilshin report. At the Sherrick Farm (Dorsey Farm), the report looks at only the existing conditions and preservation recommendations for the smokehouse. Includes two photographs, 4 pages of drawings.*

Lagemann, R.L. Annual Priority Listing, Resource Study Proposals, Antietam National Battlefield Site, 1966 Fiscal Year. 1966. *Resource study proposal for Sherrick Farm from 1964 includes description of existing buildings, including existing conditions, etc. From file at Antietam Visitor Center Library, "H30 Sherrick Farm."*

Lessem, Harold I. "Project Construction Proposal, Sherrick House." June 9, 1965. *Proposal for $26,200 worth of work on the Sherrick House to convert it to housing. From file at Antietam Visitor Center Library, "H30 Sherrick Farm."*

McClanahan, W. Dean. Letter to James W. Dorsey. November 8, 1967. *Letter from Park Superintendent to the owner of the Sherrick Farm regarding the purchase of the farm. From file at Antietam Visitor Center, "L1425 Land Acquisition Tract 02-109."*

McClanahan, W. Dean. "Work Order, Rehabilitate Smoke House, Dorsey Farm." October 3, 1968. *Approval for $6700 worth of work on the Sherrick Farm smokehouse. From file at Antietam Visitor Center Library, "H30 Sherrick Farm."*

National Park Service. "Tract Record and Valuation Data of Land to be Acquired." N.d. *Description of part of the Sherrick Farm land purchased by the NPS, probably in 1944. Includes extensive list of buildings which exist on the property. From file at Antietam Visitor Center, "L1425 Land Acquisition Tract 02-109."*

Otto, B. "Memo for Record - Sherrick Barn Burned." December 11, 1985. *Brief description of June, 18-19 destruction of the Sherrick Barn. From file at Antietam Visitor Center Library, "H30 Sherrick Farm."*

Palmer, George A. Letter to Hon. J. Glenn Beall, U.S. Senate. January 22, 1964. *Letter discussing the acquisition Sherrick Farm from the Dorsey family, written by NPS Acting Regional Director. From file at Antietam Visitor Center, "L1425 Land Acquisition Tract 02-109."*

MANUSCRIPTS AND UNPUBLISHED REPORTS (CONT'D)

Patterson, James C. and John R. Short. "Site Evaluation for Septic Disposal, Sherrick House, Antietam National Battlefield Park." From the files of the Chief, Cultural Resources Division, Antietam National Battlefield. April and May, 1987. *Includes evaluation of report and recommendations for sewage disposal system at the Sherrick House included, by NPS Environmental Sanitation Consultant, May, 1987.*

Scott, Gary. "Antietam National Battlefield Site." National Register of Historic Places Inventory - Nomination Form for Federal Property. August 21, 1981. *Describes historic features of the Battlefield, including the Sherrick House and Smokehouse.*

Simpson, C. "Land Ownership Record." March, 1965. *Property description and survey record of Sherrick Farm as purchased by NPS. From file at Antietam Visitor Center, "L1425 Land Acquisition Tract 02-109."*

Vial, Charles L. "Project Construction Proposal, Smoke House, Sherrick Farm". October 20, 1967. *Proposal for $9300 worth of work on the Sherrick Farm smokehouse. From file at Antietam Visitor Center Library, "H30 Sherrick Farm."*

Wilshin, Francis F. Historic Structures Report, History Data, Antietam National Battlefield Site, Maryland: Mumma Farm-"Spring House", Piper Farm-"Slave Quarters", Sherrick Farm-"Smoke House". Division of History, Office of Archeology and Historic Preservation, National Park Service, U.S. Department of the Interior, 1970. *From Antietam Visitor Center Library. Includes a brief description of the battle, a chain of title for the Sherrick Farm, description of the construction and changes of the smokehouse, legal records of claims for damages by Sherrick's estate after the war, 1796 and 1838 deeds, project construction proposal for work on the smokehouse, photos and drawings of the farmstead and smokehouse, and maps of the battle.*

MAPS

Cowles, Captain Calvin D. Atlas to Accompany the Official Records of the Union and Confederate Armies. Washington, D.C.: Government Printing Office, 1899; rpt. New York: Thomas Yoseloff, Inc., 1958. *The comprehensive atlas of the Civil War as compiled by the U.S. Department of War. Includes the following relevant maps of Antietam: "Map of the Battle of Antietam, Showing the Signal Stations and Hospitals" (plate XXVIII, no. 2), "Map of that Portion of the Battlefield of Antietam Occupied by the Troops under Maj. Gen. Burnside" (plate XXVIII, no. 6), "Antietam" (Michler, series 1, vol xix), "Map of the Battle of Antietam", (October, 1862, by Bowen and Cushing).*

Ourand, Charles H. "Map of the Battlefield of Antietam." Gettysburg, Pa: Chief of Engineers, U.S. Army, 1904. *A series of 14 maps showing the Antietam Battlefield at different times during the day of the battle. Maps #10-14 show the battle action which took place around the Sherrick Farm, between noon and 5:30 p.m. From map file at Antietam Visitor Center Library.*

U.S. Department of the Interior, National Park Service. "Plat of Antietam National Battlefield Site." September 17, 1969. *Map showing Burnside Road relocation from Rodman Avenue, in front of the Sherrick house, and across Antietam Creek. From file at Antietam Visitor Center, "L1425 Land Acquisition Tract 02-109."*

PHOTOGRAPHS

Antietam Visitor Center Library slide collection. *Miscellaneous undated slides showing the barn and the house, probably taken in the 1970's and 1980's.*

Antietam Visitor Center Library photograph collection. Miscellaneous photos of the Sherrick Farm, dated from 1922 to 1967. *Photographs from the Antietam Visitor Center Library are cataloged with a fifteen digit number (such as ANTI{P} 07A285 {1958}). ANTI{P} is the designation for all the photos in the Antietam Visitor Library. The final four digits indicate the year of the photograph.*

Reber Collection, Antietam Visitor Center Library, #93-103, 105-107, 109-110. *Color slides of the Sherrick Farm, taken after the reroofing of the house with a metal roof, and before the barn burned, dated spring and fall of 1978.*

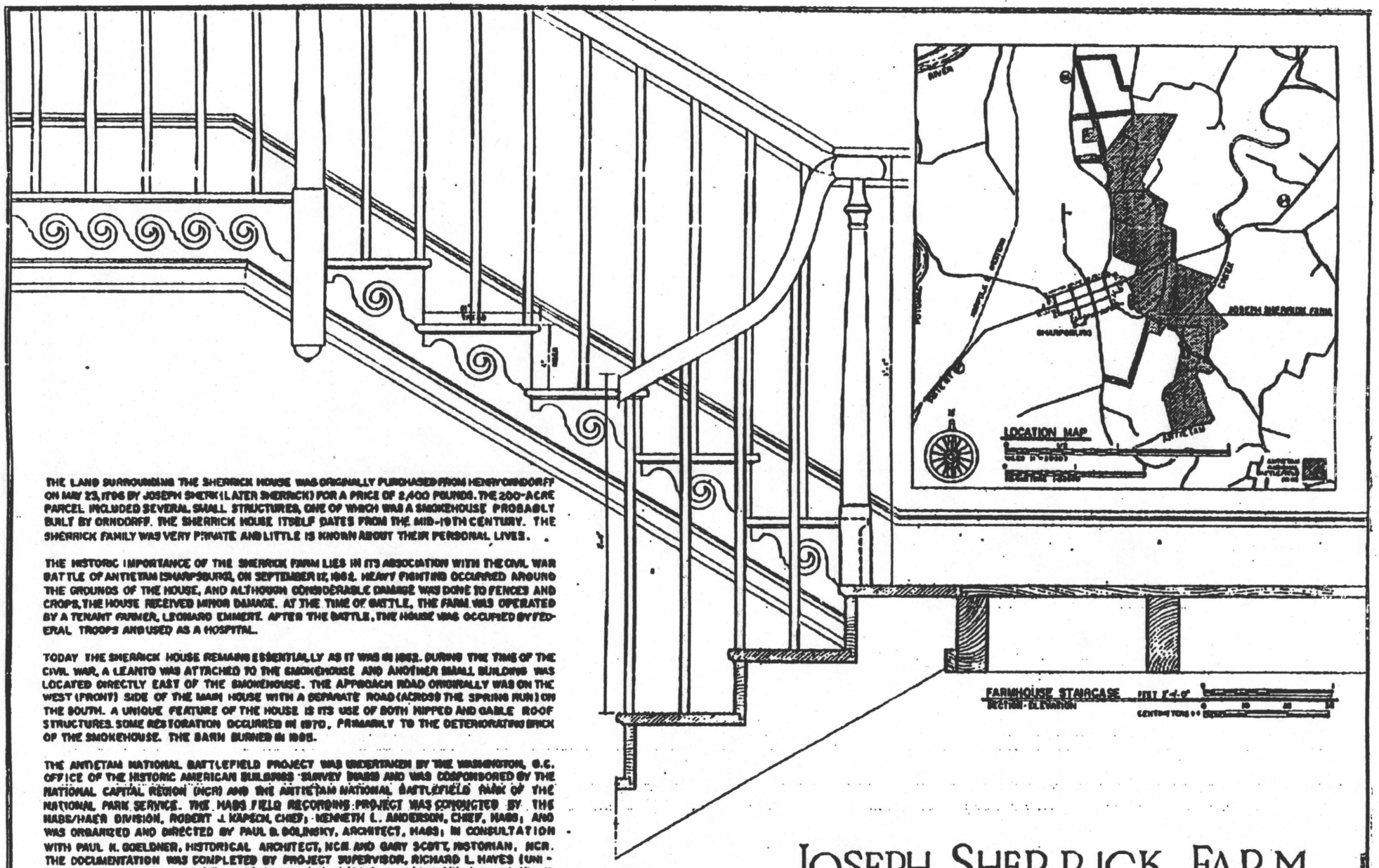
"The Sherrick Farm Buildings, by Alexander Gardner." Stereo photograph in the collection of the Library of Congress, file #405927 LC-B815-598.

Measured Drawings by
Janet M. Bloomberg, Philip L. Eschtruth
Donald D. Searle and Lori A. Allen
1986

Measured Drawings by
David Amundson, Reed Black
Melissa Cohen and Craig Ackerman
Oehrlein & Associates Architects
1995

Site Survey by
Associated Engineers, Inc
November, 1993

APPENDIX A:
HABS DRAWINGS AND SITE SURVEY



JOSEPH SHERRICK FARM

THE LAND SURROUNDING THE SHERRICK HOUSE WAS ORIGINALLY PURCHASED FROM HENRY ORNDORFF ON MAY 23, 1796 BY JOSEPH SHERK (LATER SHERRICK) FOR A PRICE OF 2,400 POUNDS. THE 200-ACRE PARCEL INCLUDED SEVERAL SMALL STRUCTURES, ONE OF WHICH WAS A SMOKEHOUSE PROBABLY BUILT BY ORNDORFF. THE SHERRICK HOUSE ITSELF DATES FROM THE MID-19TH CENTURY. THE SHERRICK FAMILY WAS VERY PRIVATE AND LITTLE IS KNOWN ABOUT THEIR PERSONAL LIVES.

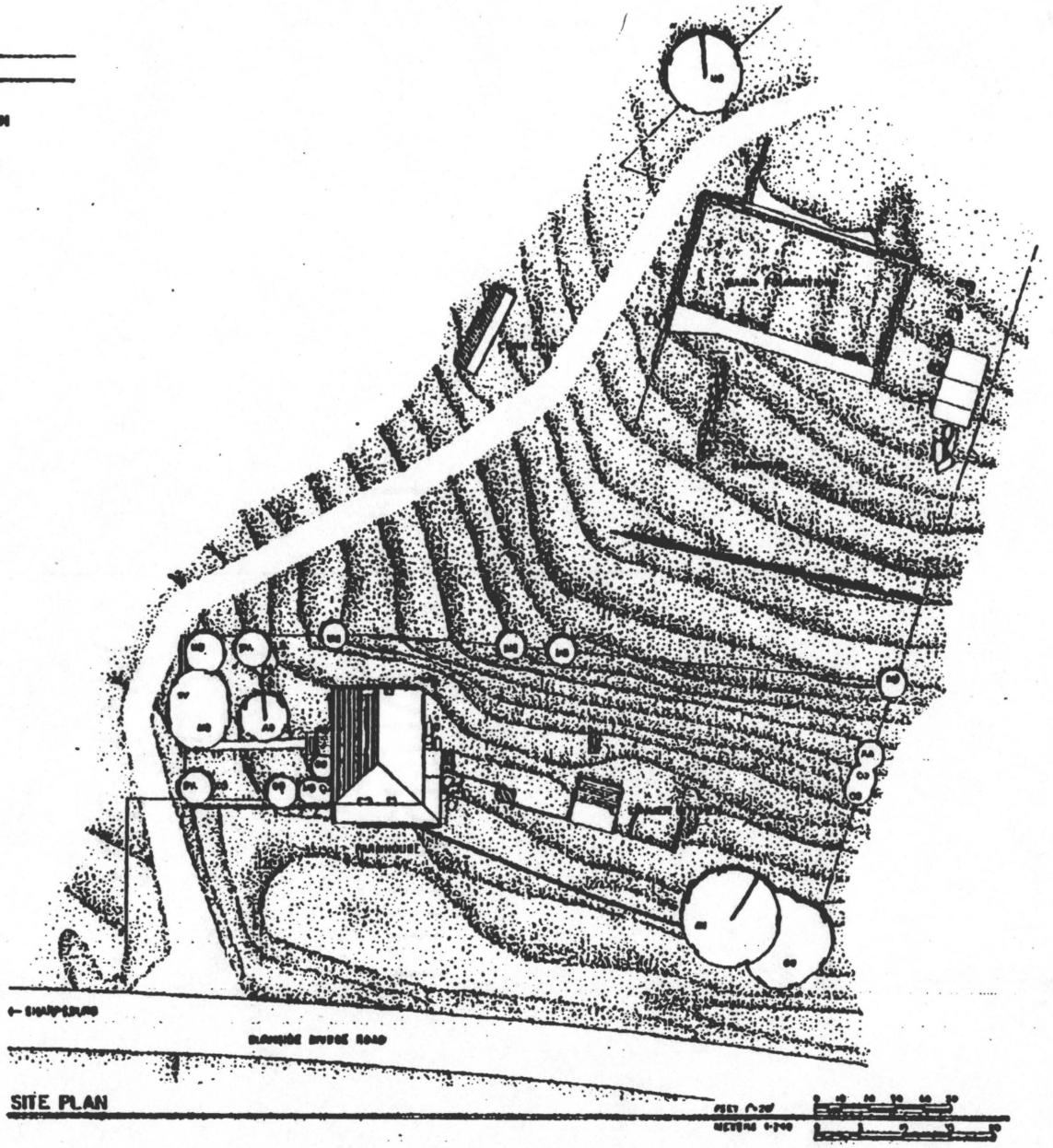
THE HISTORIC IMPORTANCE OF THE SHERRICK FARM LIES IN ITS ASSOCIATION WITH THE CIVIL WAR BATTLE OF ANTIETAM (SHARPSBURG), ON SEPTEMBER 17, 1862. HEAVY FIGHTING OCCURRED AROUND THE GROUNDS OF THE HOUSE, AND ALTHOUGH CONSIDERABLE DAMAGE WAS DONE TO FENCES AND CROPS, THE HOUSE RECEIVED MINOR DAMAGE. AT THE TIME OF BATTLE, THE FARM WAS OPERATED BY A TENANT FARMER, LEONARD EMMERT. AFTER THE BATTLE, THE HOUSE WAS OCCUPIED BY FEDERAL TROOPS AND USED AS A HOSPITAL.

TODAY THE SHERRICK HOUSE REMAINS ESSENTIALLY AS IT WAS IN 1862. DURING THE TIME OF THE CIVIL WAR, A LEANTO WAS ATTACHED TO THE SMOKEHOUSE AND ANOTHER SMALL BUILDING WAS LOCATED DIRECTLY EAST OF THE SMOKEHOUSE. THE APPROACH ROAD ORIGINALLY WAS ON THE WEST (FRONT) SIDE OF THE MAIN HOUSE WITH A SEPARATE ROAD (ACROSS THE SPRING RUN) ON THE SOUTH. A UNIQUE FEATURE OF THE HOUSE IS ITS USE OF BOTH HIPPED AND GABLE ROOF STRUCTURES. SOME RESTORATION OCCURRED IN 1970, PRIMARILY TO THE DETERIORATING BRICK OF THE SMOKEHOUSE. THE BARN BURNED IN 1985.

THE ANTIETAM NATIONAL BATTLEFIELD PROJECT WAS UNDERTAKEN BY THE WASHINGTON, D.C. OFFICE OF THE HISTORIC AMERICAN BUILDINGS SURVEY (HABS) AND WAS COSPONSORED BY THE NATIONAL CAPITAL REGION (NCR) AND THE ANTIETAM NATIONAL BATTLEFIELD PARK OF THE NATIONAL PARK SERVICE. THE HABS FIELD RECORDING PROJECT WAS CONDUCTED BY THE HABS/HAER DIVISION, ROBERT J. KAPSCH, CHIEF; KENNETH L. ANDERSON, CHIEF, HABS; AND WAS ORGANIZED AND DIRECTED BY PAUL D. DOLINSKY, ARCHITECT, HABS; IN CONSULTATION WITH PAUL K. GOELDNER, HISTORICAL ARCHITECT, NCR AND GARY SCOTT, HISTORIAN, NCR. THE DOCUMENTATION WAS COMPLETED BY PROJECT SUPERVISOR, RICHARD L. HAYES (UNIVERSITY OF ILLINOIS); ARCHITECTURE TECHNICIANS JANET M. BLOOMBERG (UNIVERSITY OF VIRGINIA), PHILIP L. ESCHTRUTH (UNIVERSITY OF MICHIGAN), AND DONALD D. SEARLE (CLEMSON UNIVERSITY); AND LORI A. ALLEN, HISTORICAL LANDSCAPE ARCHITECT.

INDEX OF PLANT MATERIALS

KEY	BOTANICAL NAME	COMMON NAME
TREES		
AA	*AILANTHUS ALTISSIMA*	TREE OF HEAVEN
AS	*ACER SACCHARUM*	SUGAR MAPLE
CO	*CELTIS OCCIDENTALIS*	HACKBERRY
JN	*JUGLANS NIGRA*	BLACK WALNUT
MS	*MORUS SPECIES*	MULBERRY
PS	*PRUNUS SEROTINA*	BLACK CHERRY
SHRUBS		
SV	*SYRINGA VULGARIS*	COMMON LILAC
VINES		
LS	*LONICERA SPECIES*	HONEYSUCKLE



SITE PLAN

ENVIRONMENTAL ANALYSIS

GERMAN BANK BARN

1A HAY AND GRAIN STORED ON UPPER LEVEL OF BARN WITH INDIRECT ACCESS FROM UPHILL SIDE.

1B ANIMALS CARED FOR ON LOWER LEVEL OF BARN WITH DIRECT ACCESS FROM DOWNHILL SIDE.

1C BARNYARD LOCATED ON DOWNHILL SOUTH SIDE OF BARN FOR GOOD WINTER SUN EXPOSURE AND ENCLOSED BY MASS OF BARN FROM COLD NORTH WINTER WINDS.

CORN CRIB

2A ELEVATED ON SLOPE WITH LONG AXIS PERPENDICULAR TO PREVAILING WESTERLY BREEZES TO VENTILATE AND TO PREVENT SPONTANEOUS COMBUSTION OF GRAIN.

2B FLOOR ASSEMBLED AT HEIGHT OF WAGON BED.

SUMMER KITCHEN (REMODELED)

3 DETACHED FROM AND DOWNWIND (EAST) OF HOUSE TO DIVERT HEAT AND SMOKE AWAY FROM HOUSE IN SUMMER.

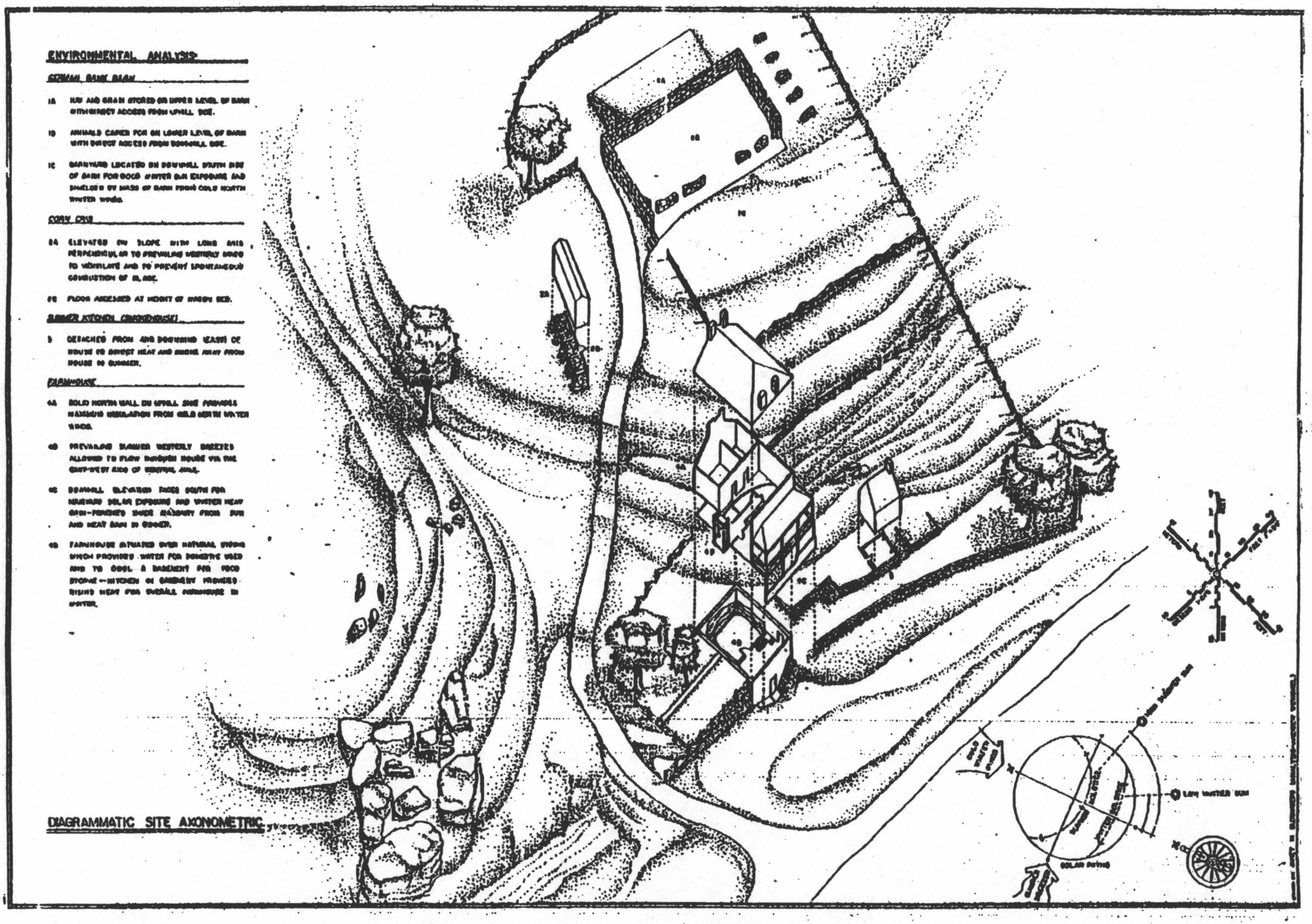
FARMHOUSE

4A SOLID NORTH WALL ON UPHILL SIDE PROVIDES MAXIMUM INSULATION FROM COLD NORTH WINTER WINDS.

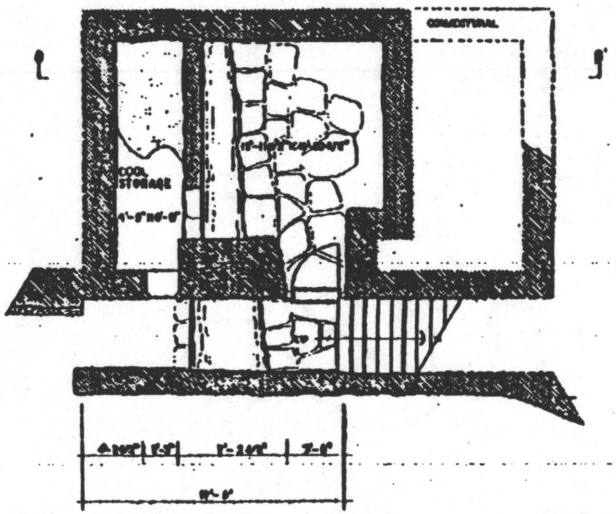
4B PREVAILING SUMMER WESTERLY BREEZES ALLOWED TO FLOW THROUGH HOUSE VIA THE EAST-WEST AXIS OF WINDOWS AND DOORS.

4C DOWNHILL ELEVATION FACES SOUTH FOR MAXIMUM SOLAR EXPOSURE AND WINTER HEAT GAIN—PROVIDED SHADE AGAINST HIGH SUN AND HEAT GAIN IN SUMMER.

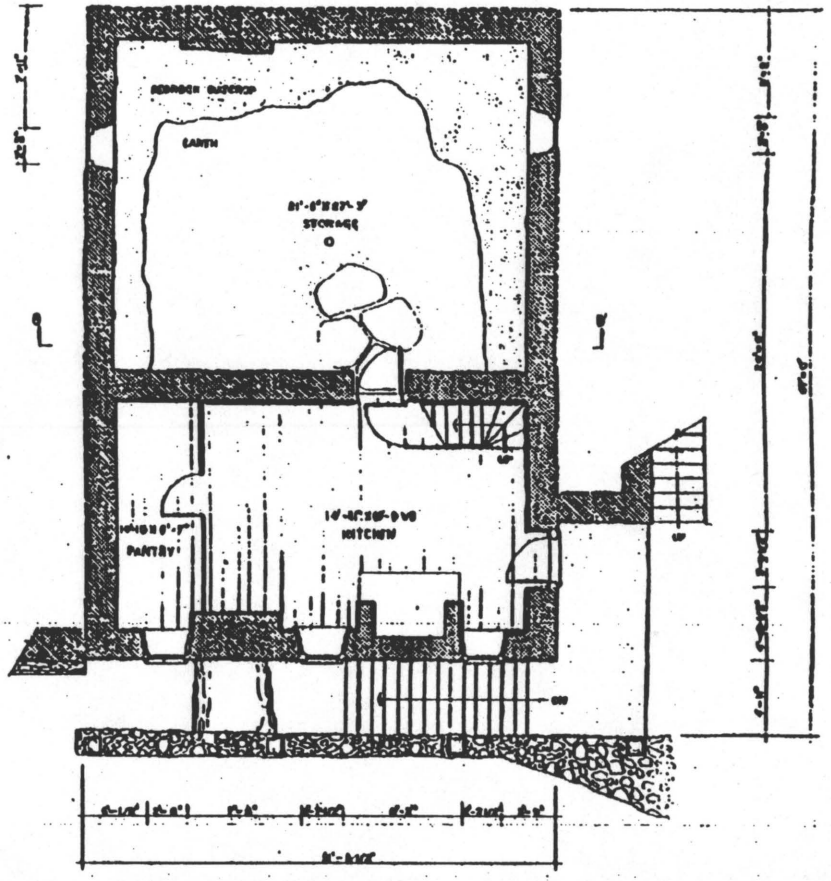
4D FARMHOUSE SITUATED OVER NATURAL SPRING WHICH PROVIDES WATER FOR DOMESTIC USE AND TO COOL A BASEMENT FOR FOOD STORAGE—KITCHEN ON BASEMENT PROVIDES RISING HEAT FOR OVERALL FARMHOUSE IN WINTER.



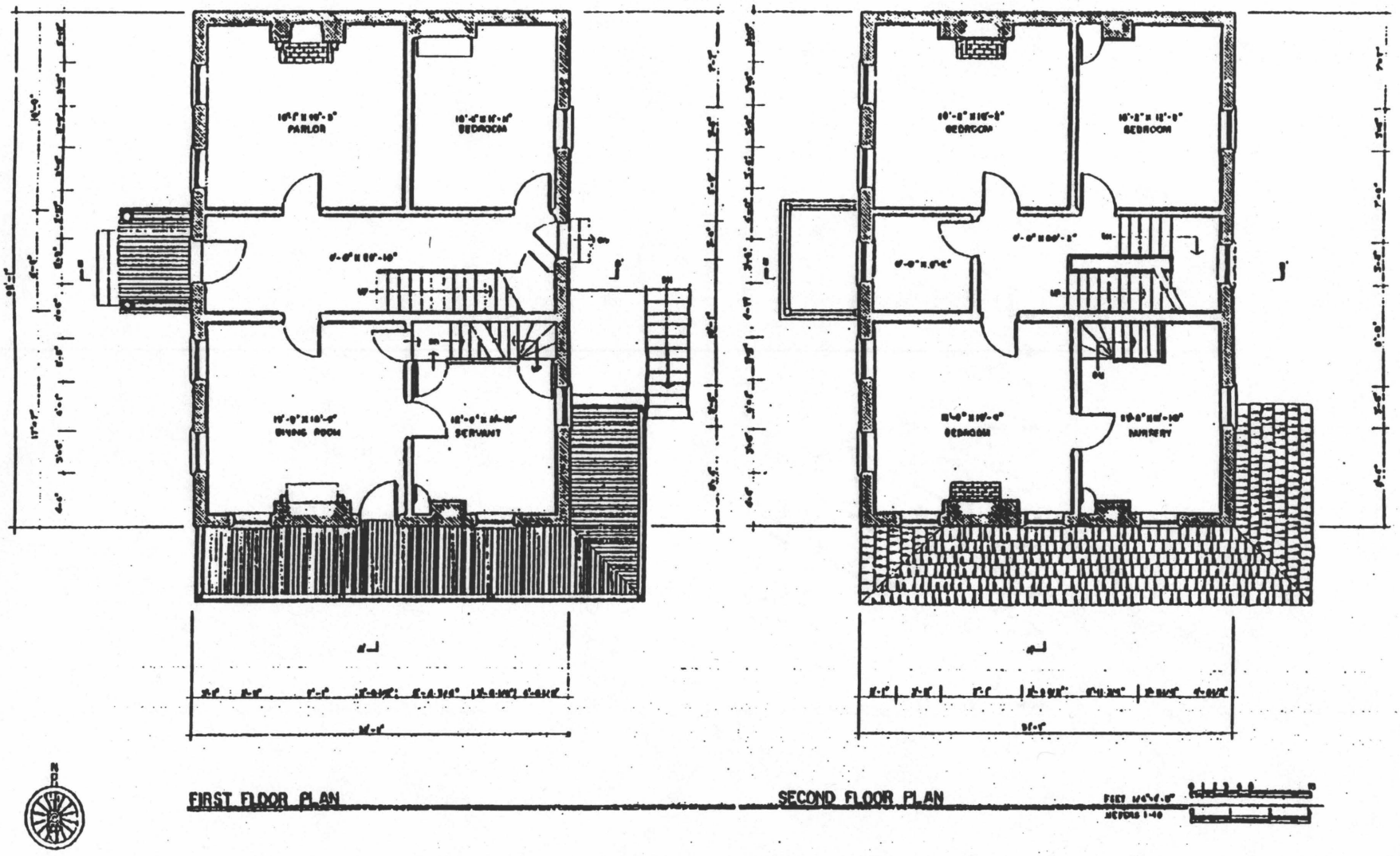
DIAGRAMMATIC SITE AXONOMETRIC



SPRING ROOM PLAN

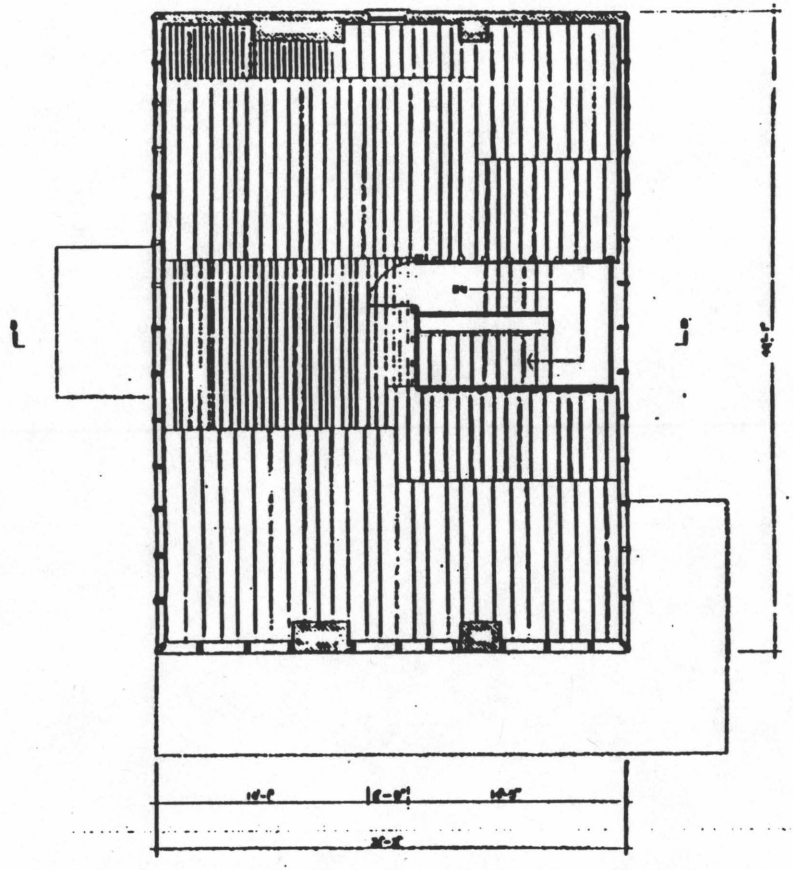


BASEMENT PLAN

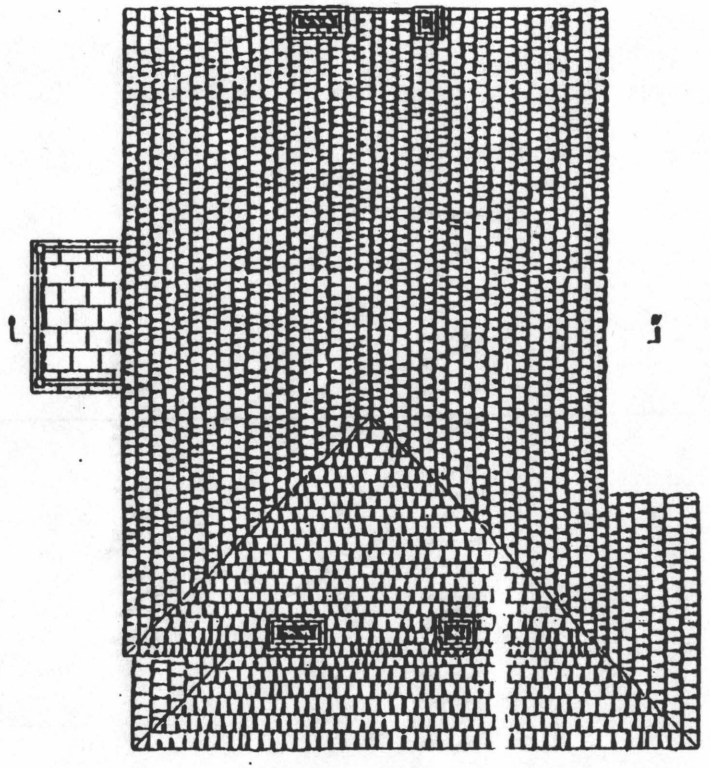


FIRST FLOOR PLAN

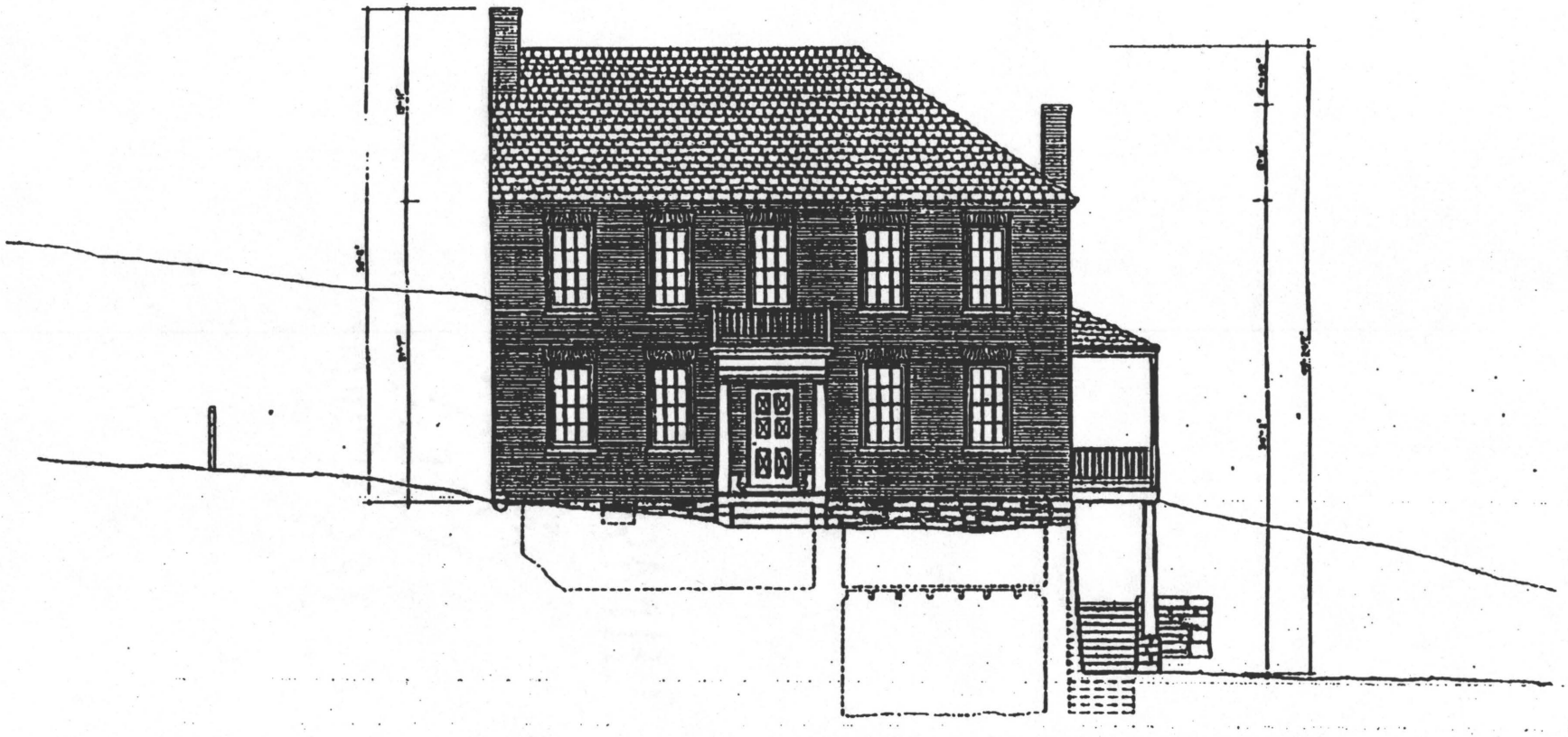
SECOND FLOOR PLAN



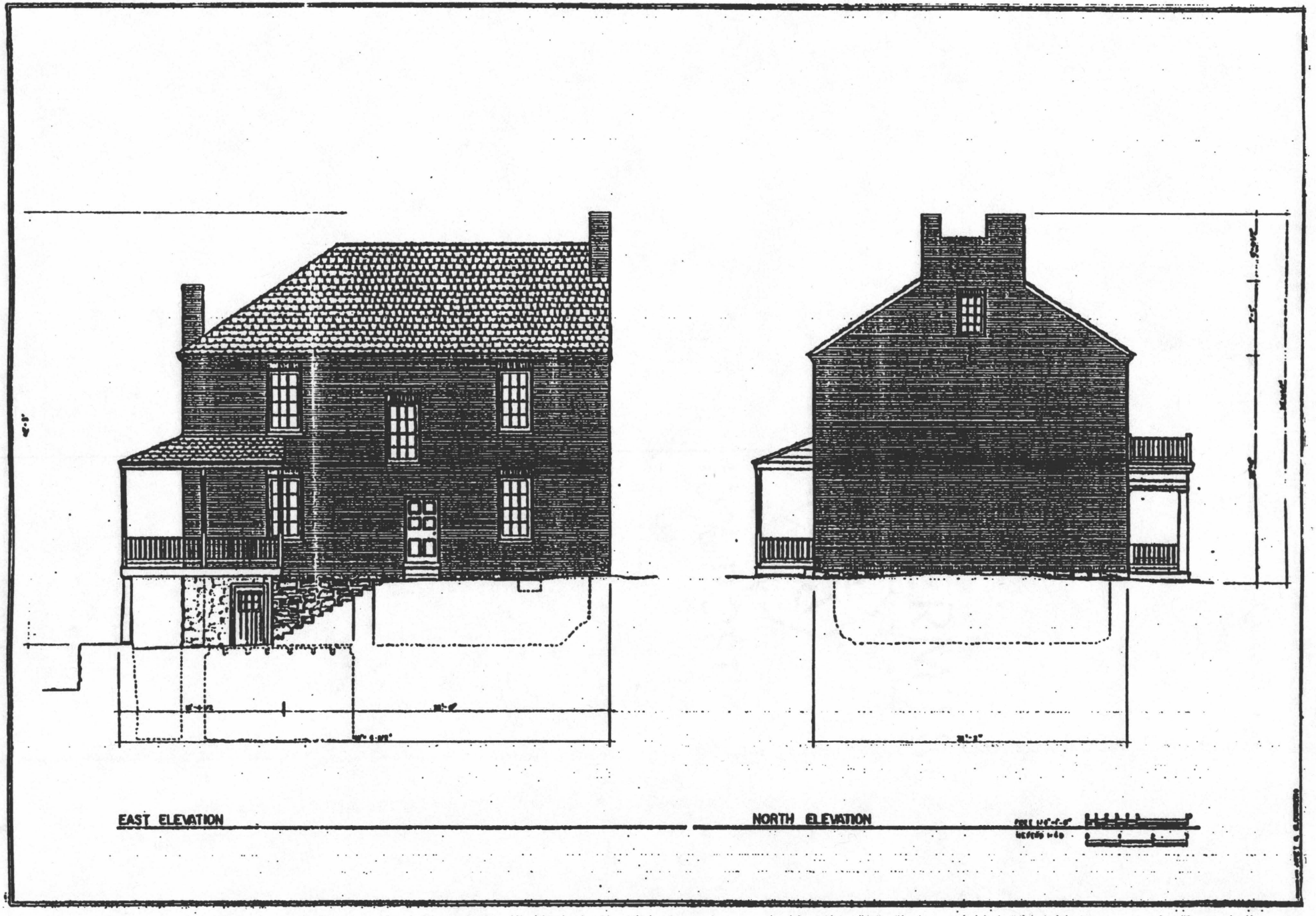
ATTIC FLOOR PLAN



ROOF PLAN

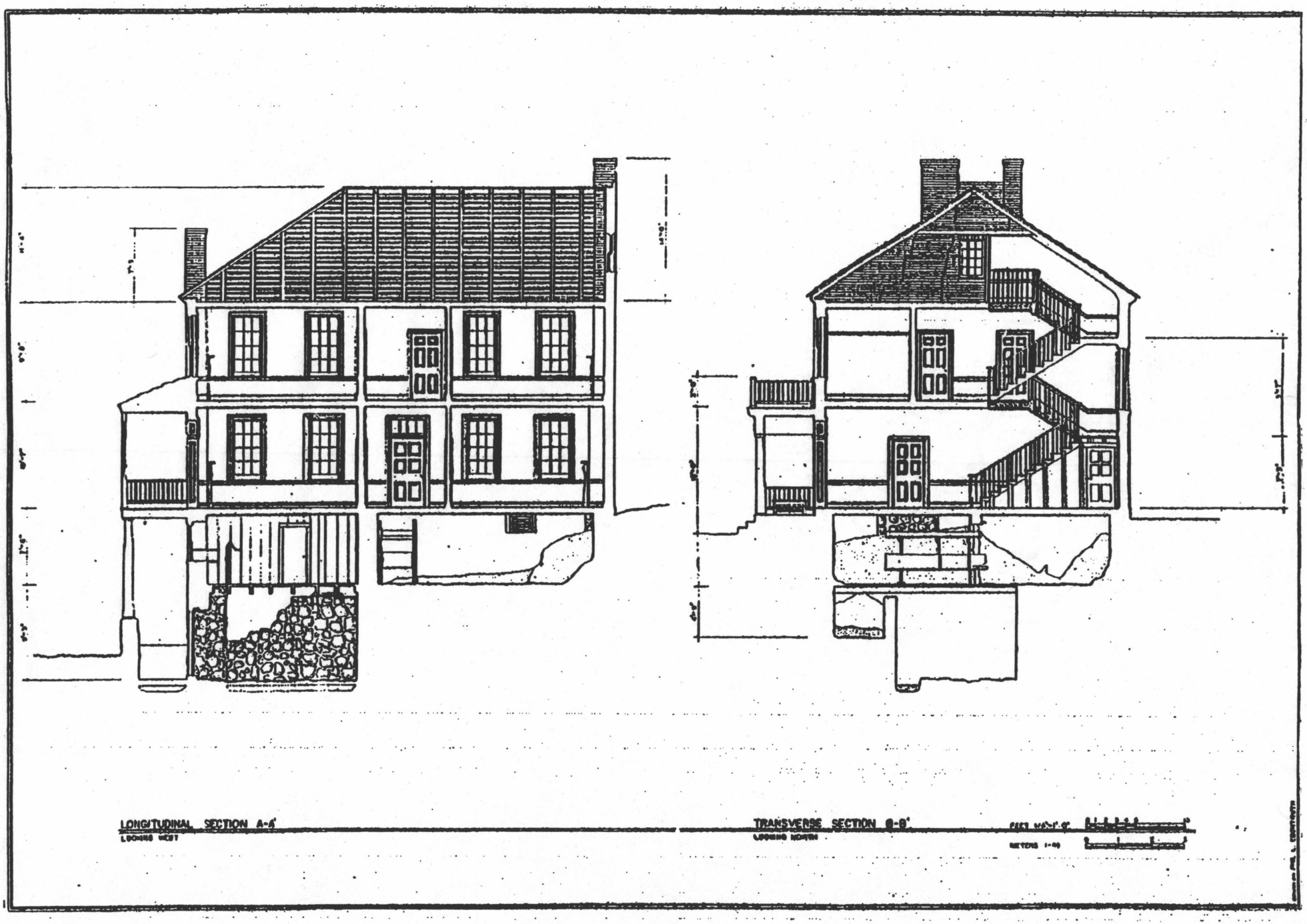


WEST ELEVATION



EAST ELEVATION

NORTH ELEVATION

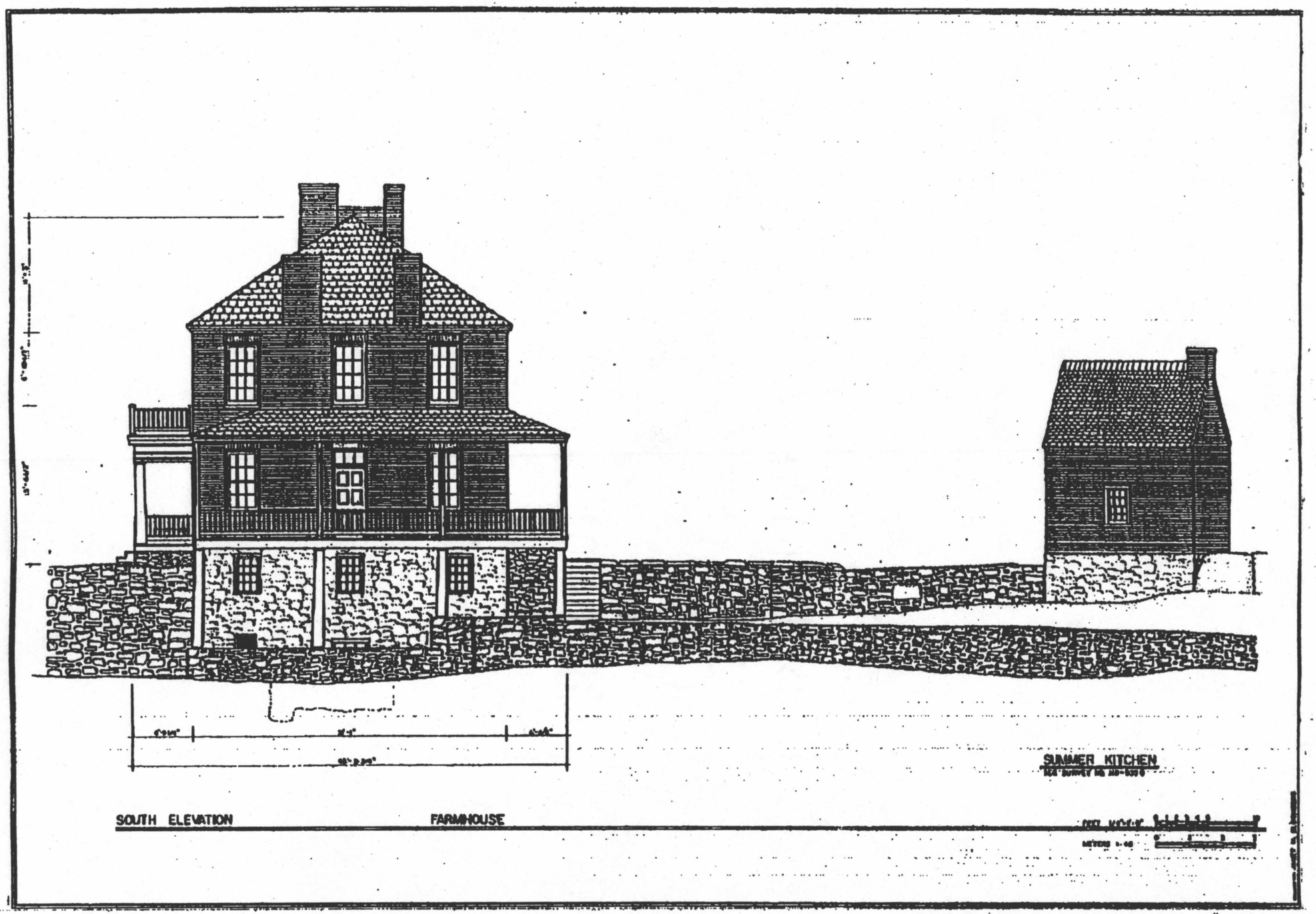


LONGITUDINAL SECTION A-A'

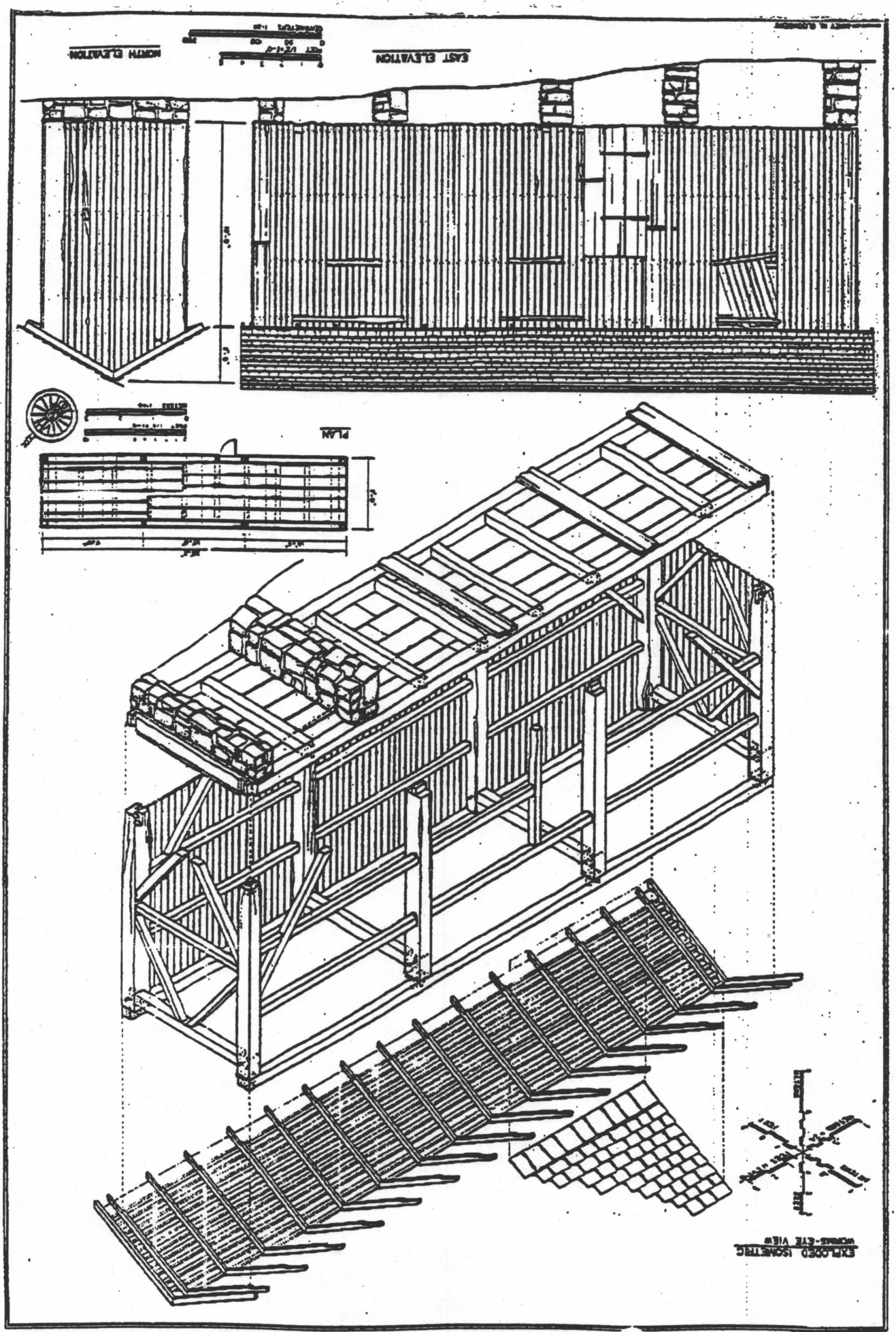
LOOKING WEST

TRANSVERSE SECTION B-B'

LOOKING NORTH



SOUTH ELEVATION FARMHOUSE

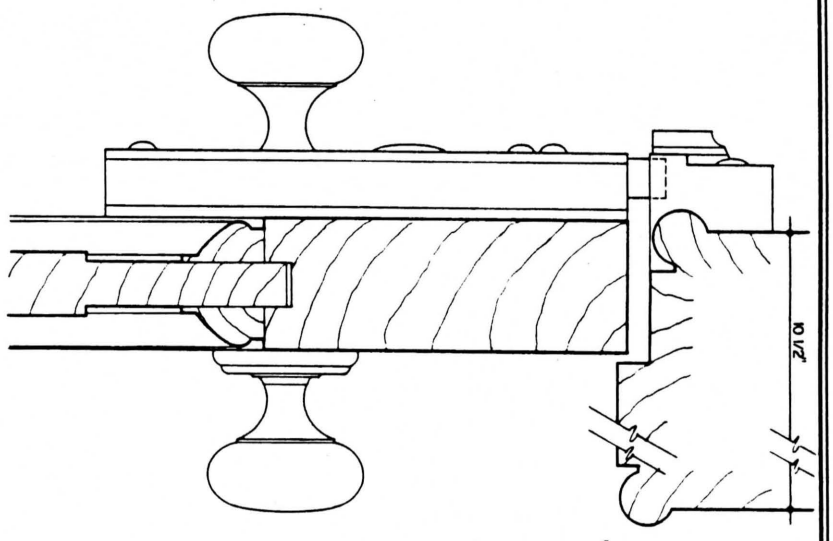

EAST ELEVATION
NORTH ELEVATION
PLAN
EXPLODED ISOMETRIC
WORKS-EYE VIEW

DOOR DETAIL-RAISED PANELS WITH APPLIED MOULDINGS AND CARPENTER LATCH

FULL SCALE

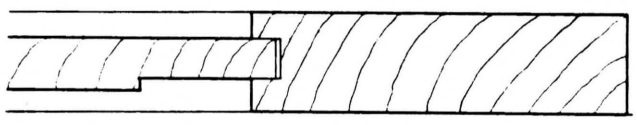
SCALE OF INCHES 0 1 2 3 4 5 6

SCALE OF CENTIMETERS 0 5 10 15



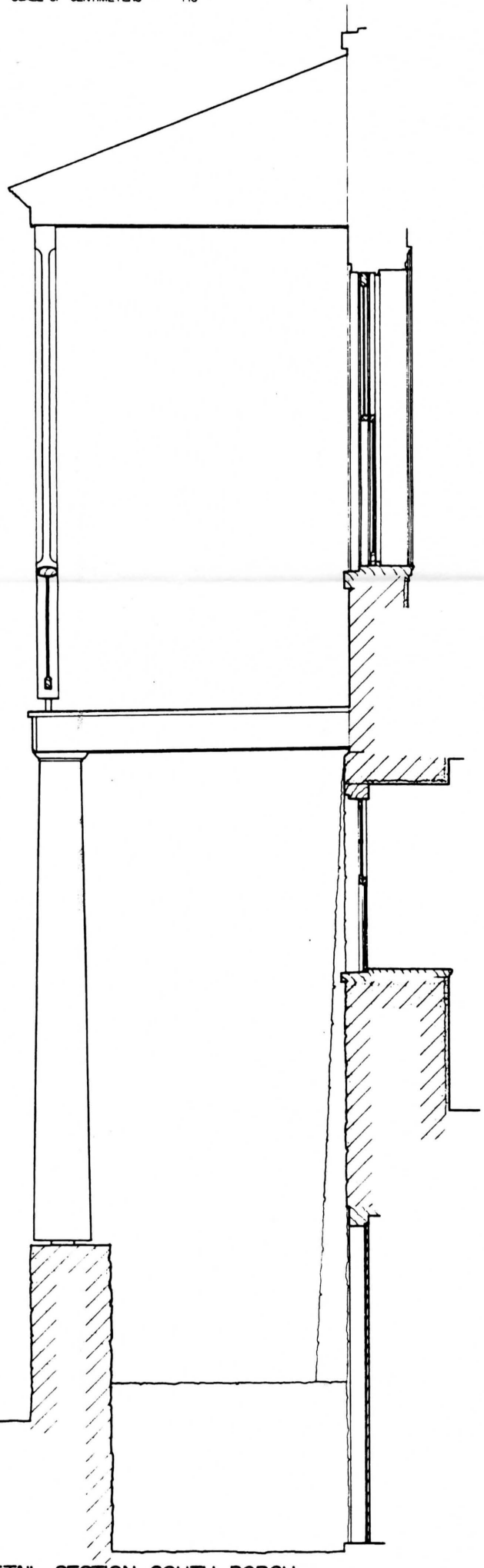
DOOR DETAIL-FLAT PANEL/ RAISED PANEL

FULL SCALE



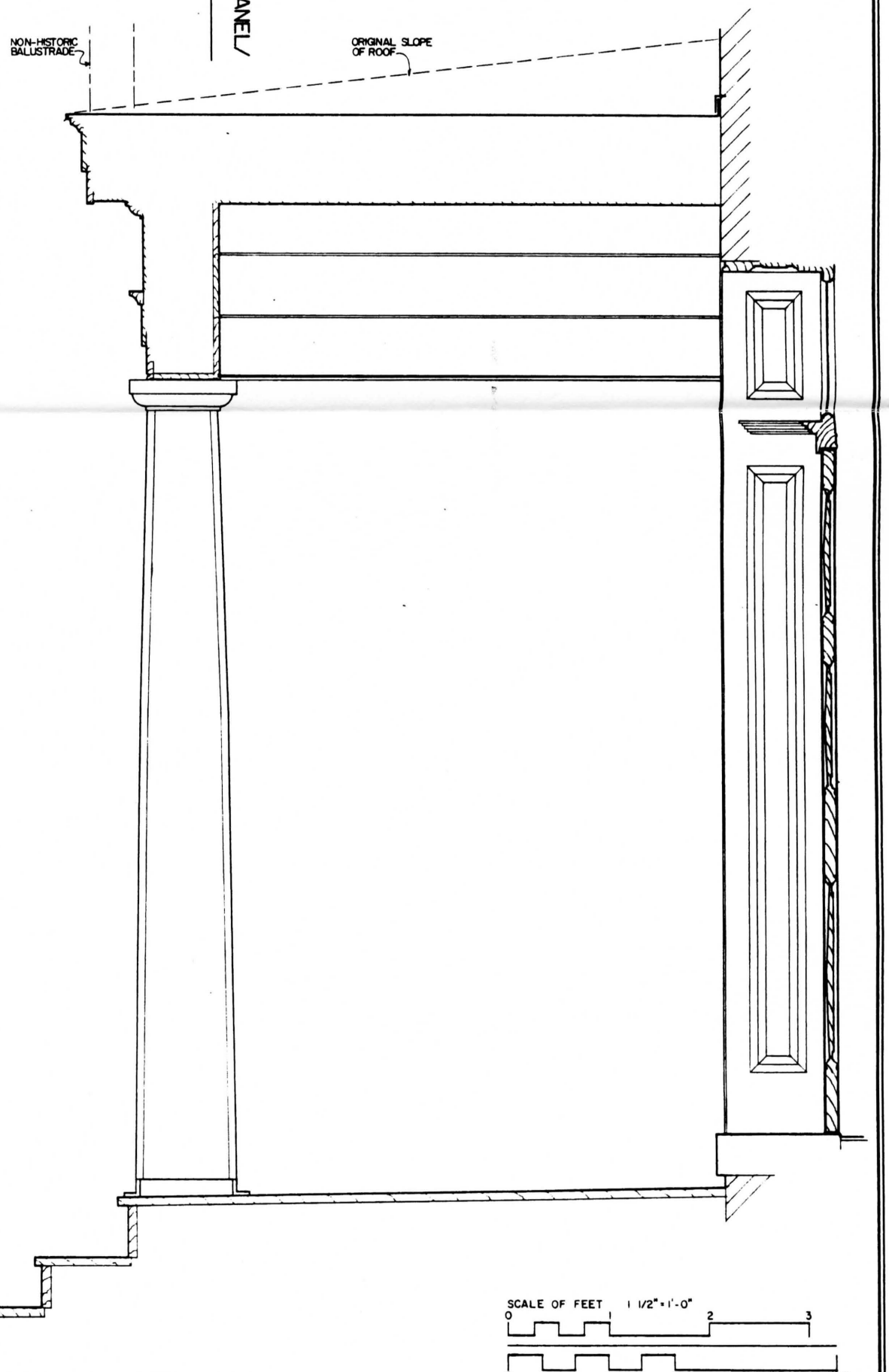
SCALE OF FEET 3/4" = 1'-0"
0 1 2 4 6

0 50 100 150 200
SCALE OF CENTIMETERS 1:16



DETAIL SECTION-SOUTH PORCH

SCALE 3/4" = 1'-0"



DETAIL SECTION-ENTRY PORCH

SCALE 1 1/2" = 1'-0"

SCALE OF FEET 1 1/2" = 1'-0"
0 1 2 3

0 50 100
SCALE OF CENTIMETERS 1:8

DRAWN BY DAVID AMUNDSON AND MELISSA COHEN, 1995

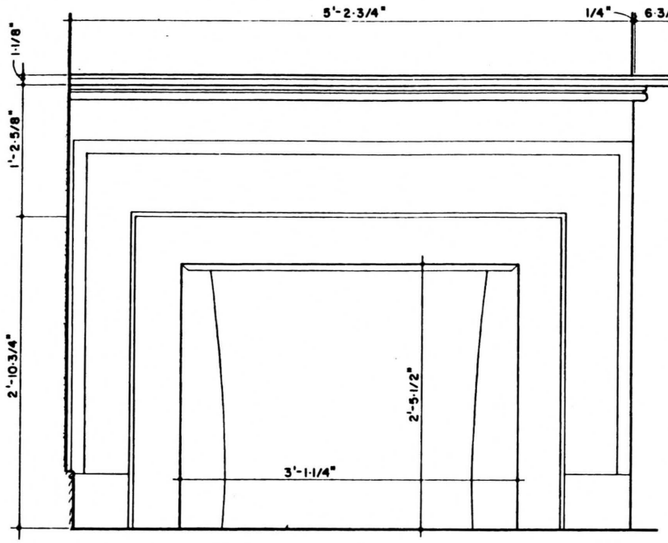
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

NAME AND LOCATION OF STRUCTURE
JOSEPH SHERRICK FARM
BURNSIDE BRIDGE ROAD (RURAL ROUTE ONE) SHARPSBURG VICINITY WASHINGTON COUNTY MARYLAND

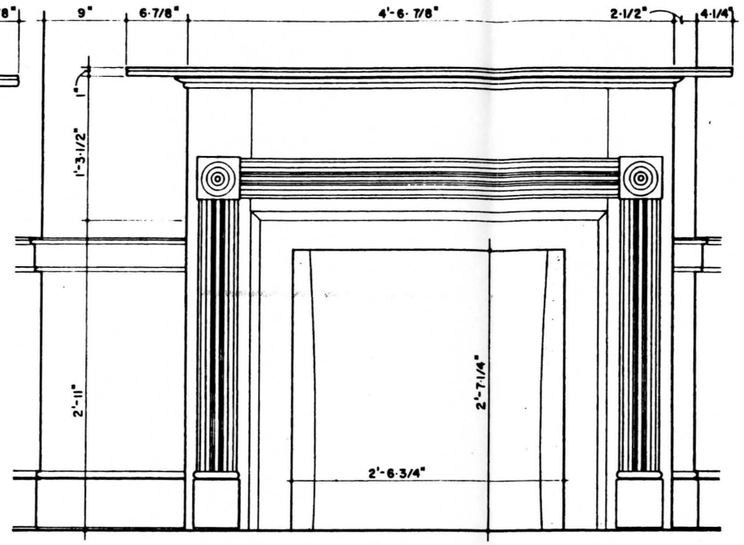
SURVEY NO.

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 1 OF 3 SHEETS

IF REPRODUCED, PLEASE CREDIT HISTORIC AMERICAN BUILDINGS SURVEY, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING



FIREPLACE IN NE. BEDROOM 1st FLOOR



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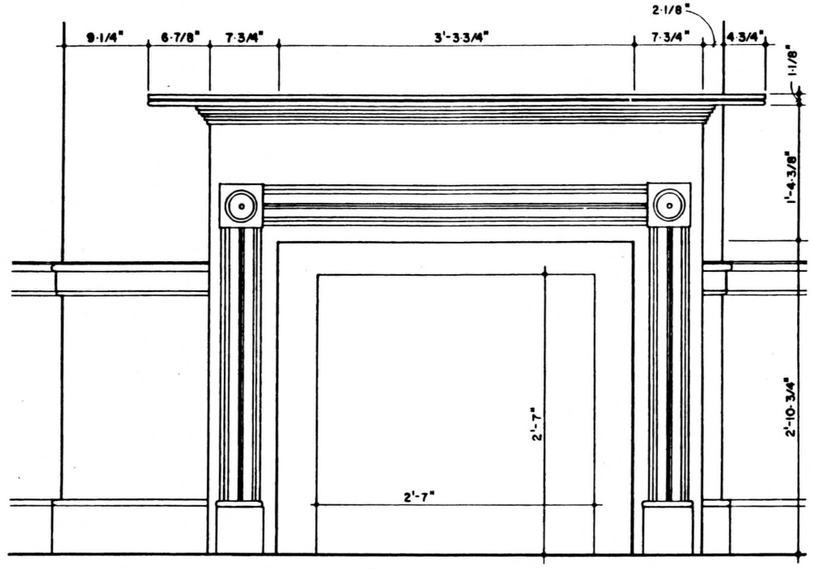
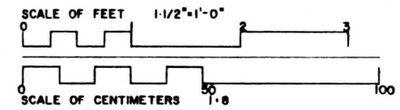
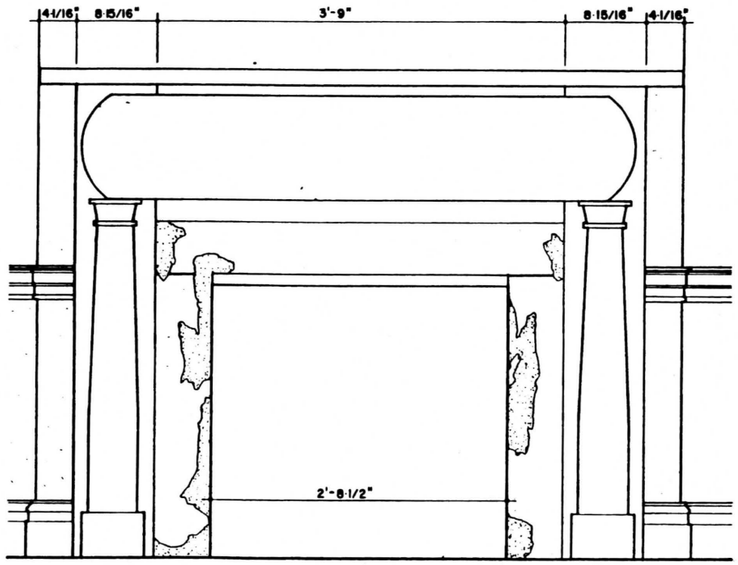


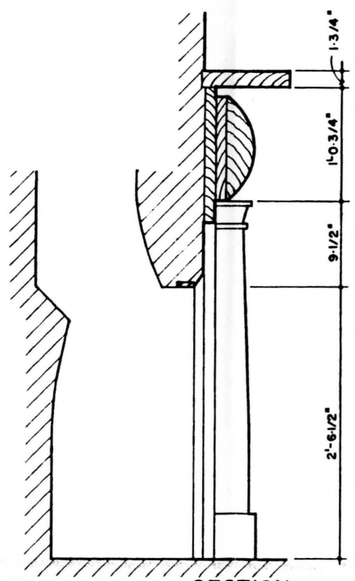
FIREPLACE IN N.W. BEDROOM 2nd FLOOR

FIREPLACE MATERIALS
WALLS, FIREBOXES, FIREPLACE SURROUNDS - PLASTER ON BRICK
MANTELS, CHAIR RAILS, BASES - WOOD
HEARTHS - BRICK

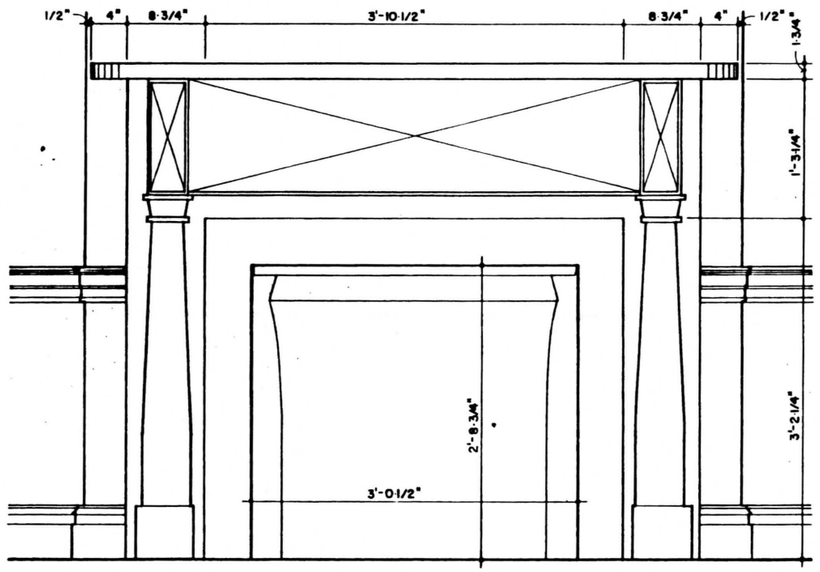




FIREPLACE IN PARLOR - ELEVATION



SECTION



FIREPLACE IN DINING ROOM - ELEVATION

Drawn by DAVID AMUNDSON AND CRAIG ACKERMAN 1995

NAME AND LOCATION OF STRUCTURE
JOSEPH SHERRICK FARM
SHARPSBURG VICINITY WASHINGTON COUNTY MARYLAND

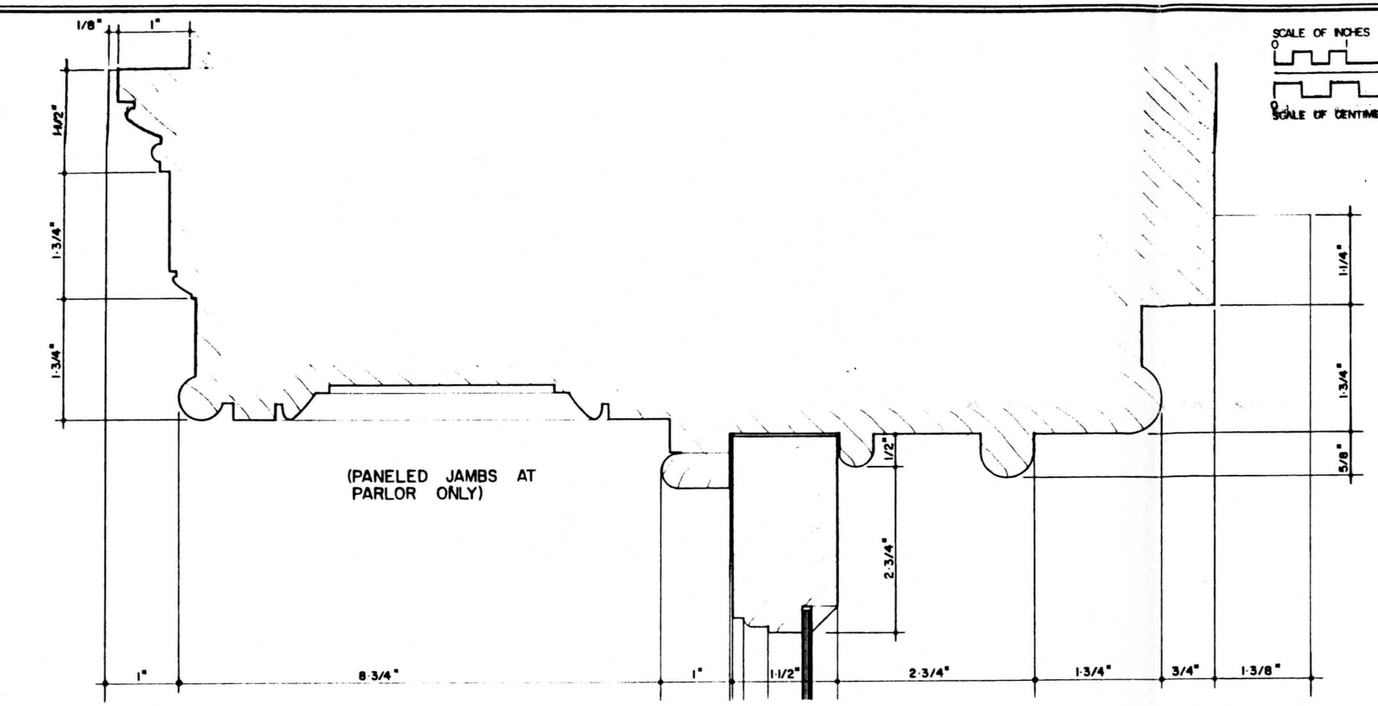
SURVEY NO.

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 2 OF 3 SHEETS

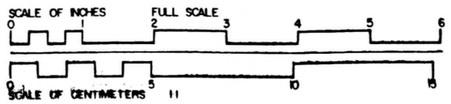
BURNSIDE BRIDGE ROAD (RURAL ROUTE ONE)

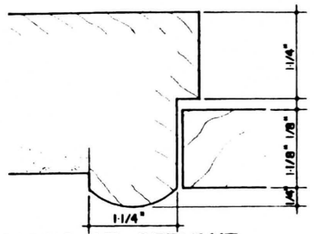
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

1" REPRODUCED PLEASE CREDIT HISTORIC AMERICAN BUILDINGS SURVEY - NATIONAL PARK SERVICE - NAME OF DELINEATOR - DATE OF THE DRAWING

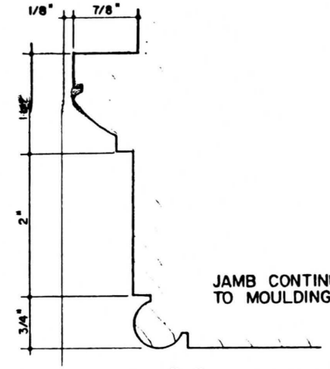


MOULDING SET "A" WINDOW JAMB AND CASING
(DOOR CASING SIMILAR)



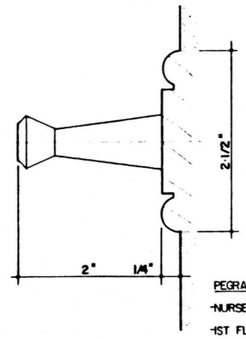


DOOR CASING AT SERVANT STAIR AND ATTIC DOORS



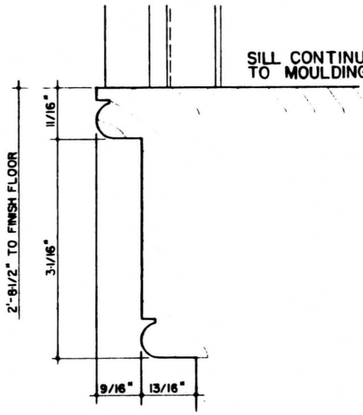
JAMB CONTINUES SIM. TO MOULDING SET "A"

MOULDING SET "B" WINDOW AND DOOR JAMB AND CASING

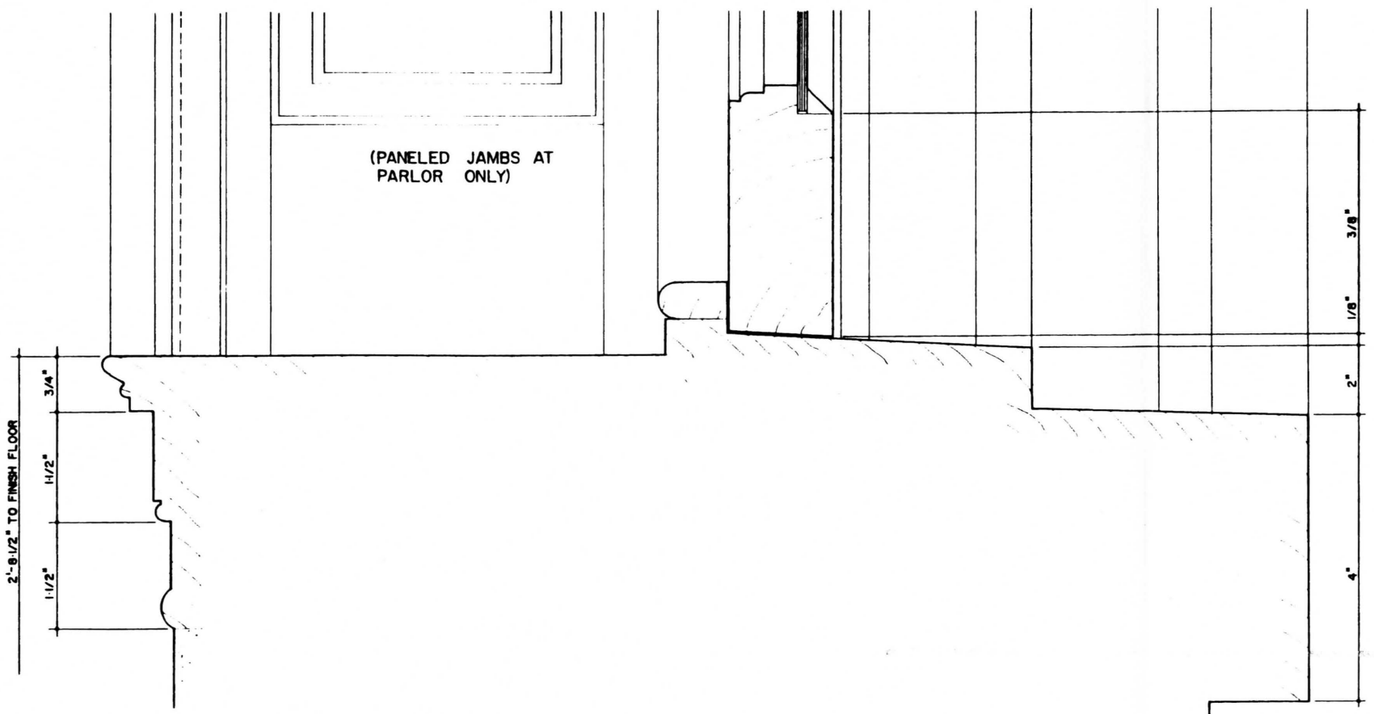


PEGRAIL IS FOUND IN:
- NURSERY
- 1ST FLOOR BEDROOM
- 2ND FLOOR NE BEDROOM

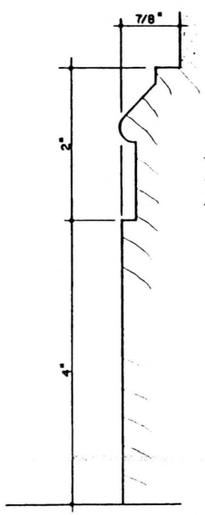
PEG RAIL



MOULDING SET "B" CHAIR RAIL AND WINDOW SILL

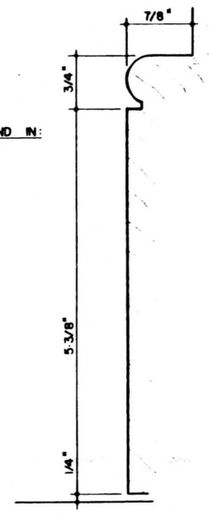


MOULDING SET "A" CHAIR RAIL AND WINDOW



MOULDING SET "A" IS FOUND IN:
- 1ST FLOOR ENTRY HALL
- PARLOR
- DINING ROOM

MOULDING SET "A" BASE



MOULDING SET "B" IS FOUND IN:
- SERVANT ROOM
- 1ST & 2ND FLOOR BEDROOMS
- 2ND FLOOR STAIR HALL
- NURSERY (NO CHAIR RAIL)
- SERVANT STAIR (BASE ONLY)

MOULDING SET "B" BASE

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 3 OF 3 SHEETS

SURVEY NO.

JOSEPH SHERRICK FARM
BURNSIDE BRIDGE ROAD (RURAL ROUTE ONE)
SHARPSBURG VICINITY
WASHINGTON COUNTY MARYLAND

NAME AND LOCATION OF STRUCTURE

DRAWN BY DAVID JAMESON, 1985

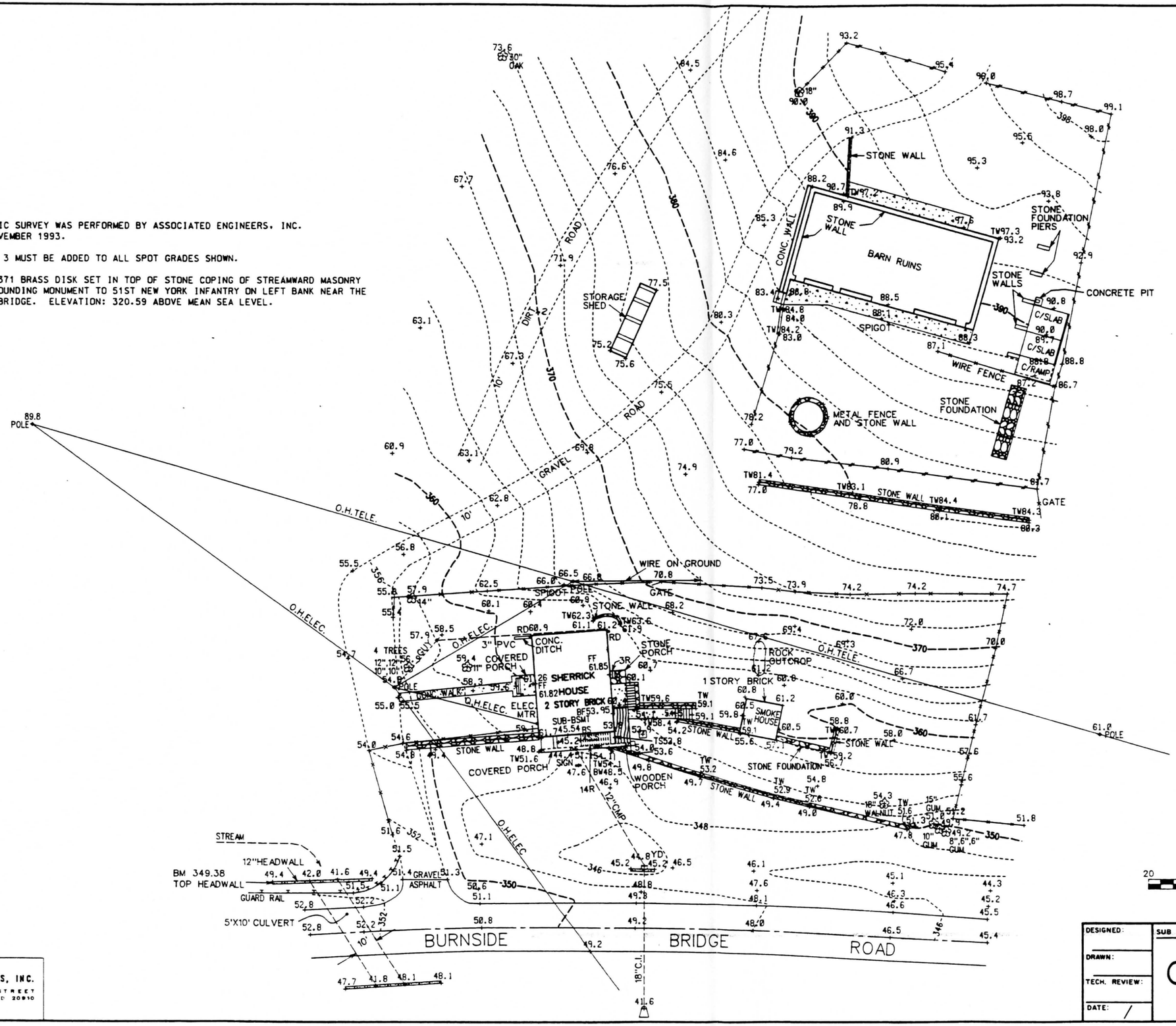
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

HISTORIC AMERICAN BUILDINGS SURVEY - NATIONAL PARK SERVICE - NAME OF DELINEATOR - DATE OF THE DRAWING

IF REPRODUCED, PLEASE CREDIT HISTORIC AMERICAN BUILDINGS SURVEY

NOTES

1. TOPOGRAPHIC SURVEY WAS PERFORMED BY ASSOCIATED ENGINEERS, INC. DURING NOVEMBER 1993.
2. PREFIX OF 3 MUST BE ADDED TO ALL SPOT GRADES SHOWN.
3. BM USED #371 BRASS DISK SET IN TOP OF STONE COPING OF STREAMWARD MASONRY WALL SURROUNDING MONUMENT TO 51ST NEW YORK INFANTRY ON LEFT BANK NEAR THE BURNSIDE BRIDGE. ELEVATION: 320.59 ABOVE MEAN SEA LEVEL.

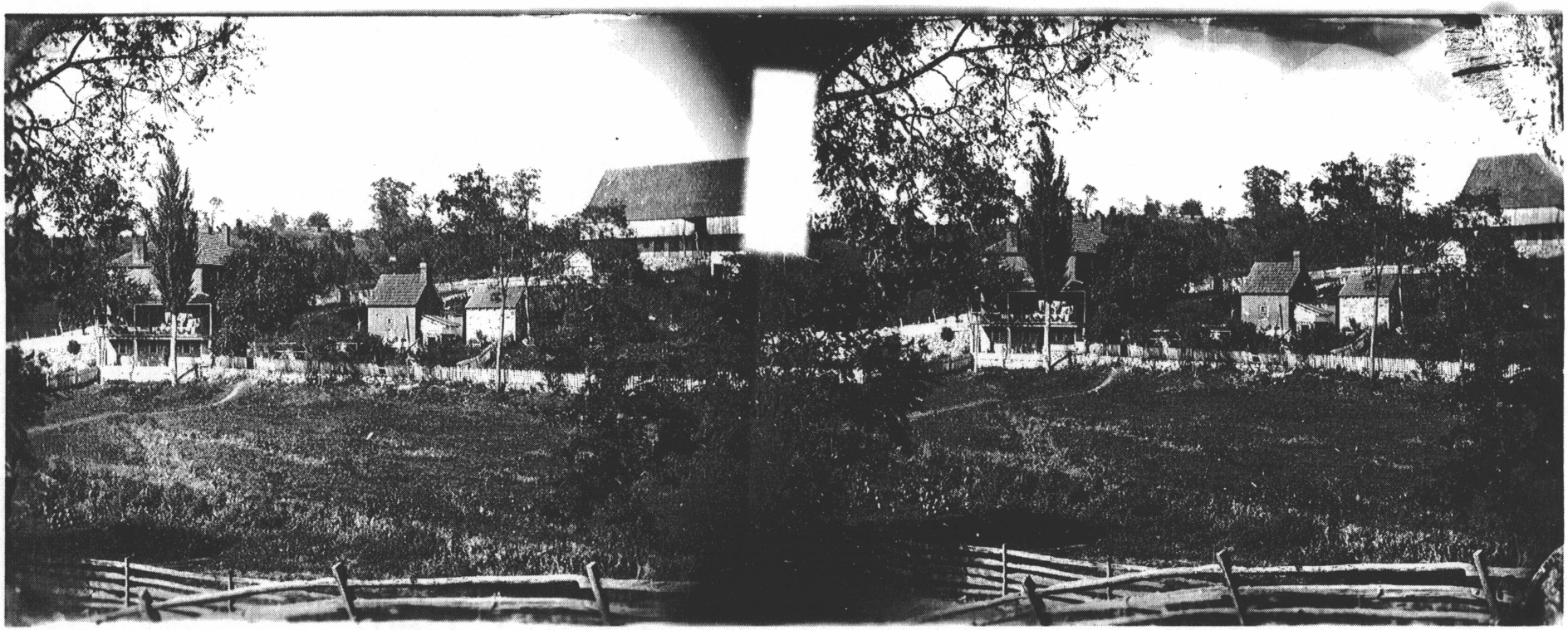


20 0 20 40
SCALE: 1"-20'

ASSOCIATED ENGINEERS, INC.
6555 SIXTEENTH STREET
SILVER SPRING, MARYLAND 20910
TEL: 301-588-7311

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN:	C1	JOSEPH SHERRICK FARM SITE PLAN	
TECH. REVIEW:			PKG. NO. / SHEET
DATE: /		ANTIETAM NATIONAL BATTLEFIELD	OF

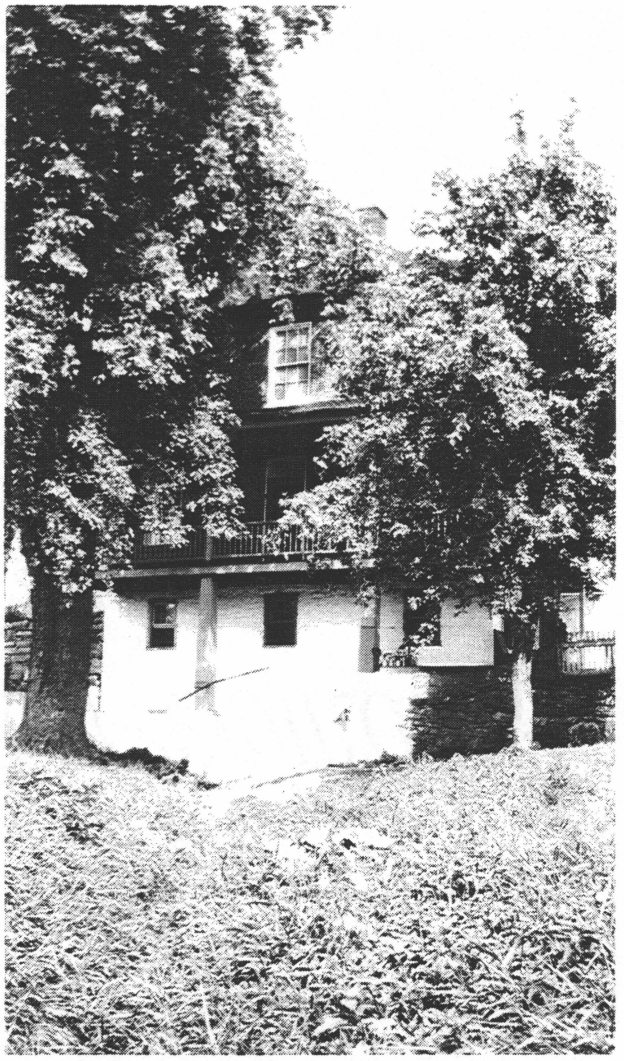
APPENDIX B:
HISTORIC PHOTOS AND MAPS



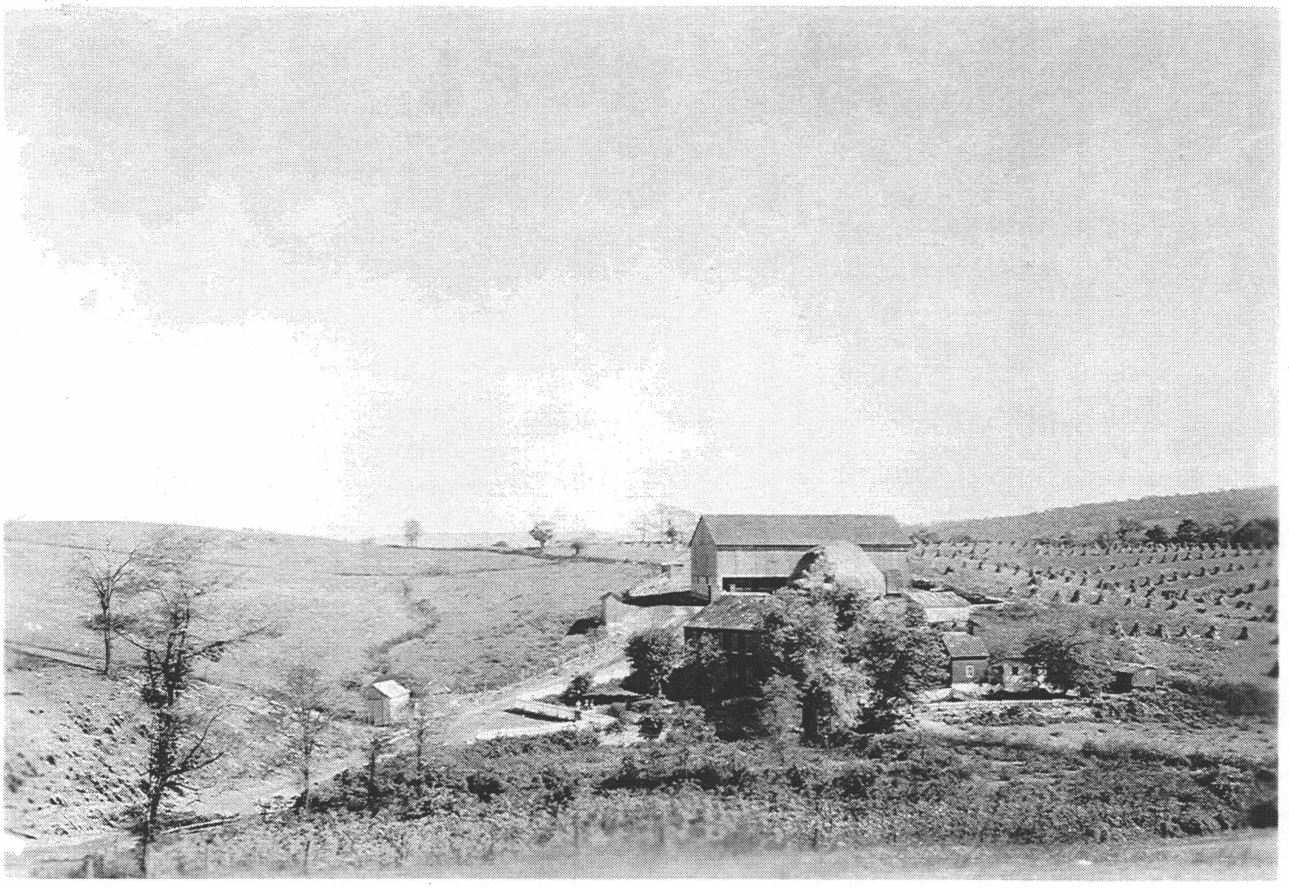
Historic Photo 1
Sherrick Farmstead
By Alexander Gardner
Taken September 21, 1862
Glass plate stereo pair.
Library of Congress, Washington, D.C.
LC-B815-598



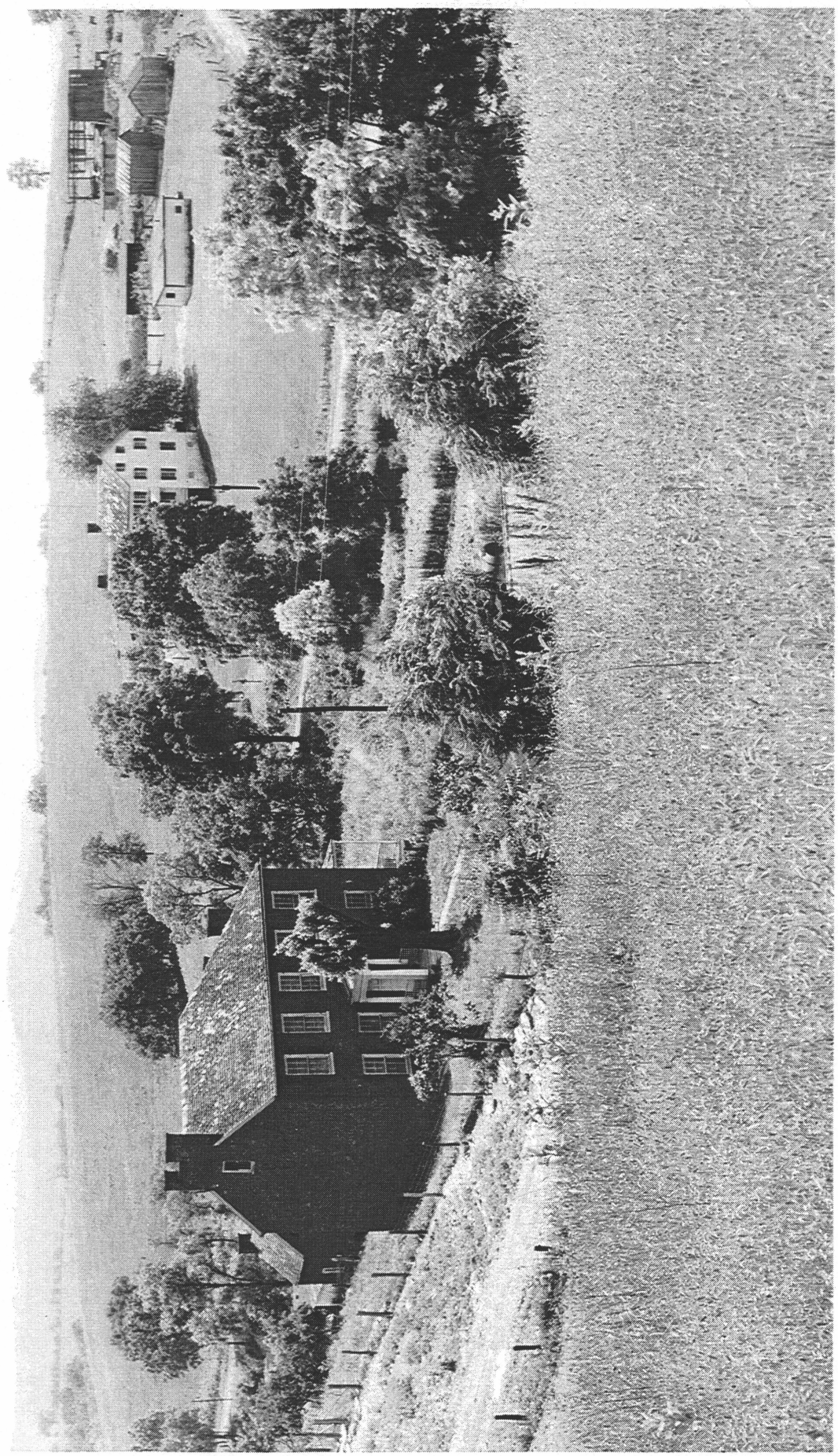
Historic Photo 2
West elevation.
ANTI (P) 07A281 (1922)



Historic Photo 3
South elevation.
ANTI (P) 07A282 (1922)



Historic Photo 4
View from southwest.
ANTI (P) 07A283 (1940)



Historic Photo 5
View from northwest.
ANTI (P) 07A284 (1958)

Historic Photo 6
View from southwest.
ANTI (P) 07A285 (1958)

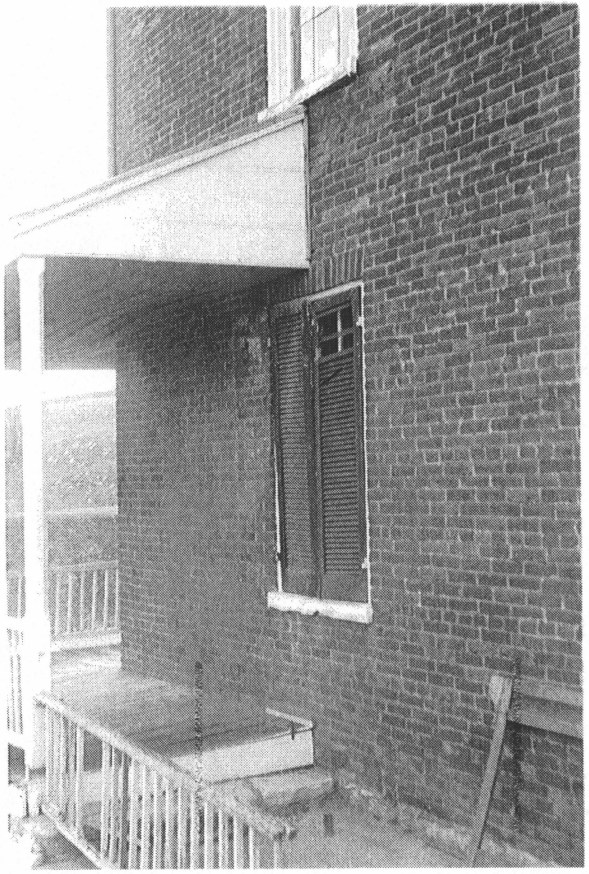


Historic Photo 7
West elevation.
ANTI (P) 07A290 (1965)

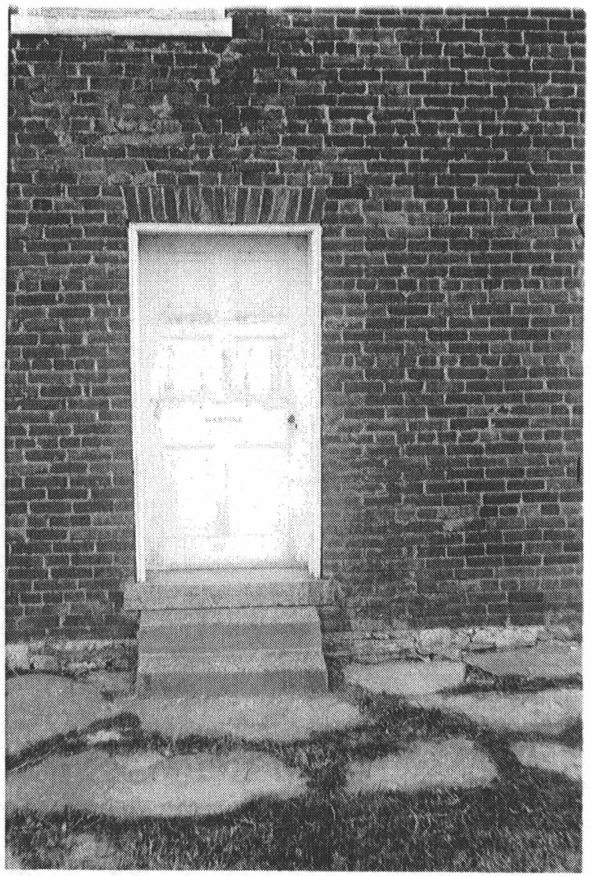


Historic Photo 8
Southwest corner of house from the west.
ANTI (P) 07A293 (1965)

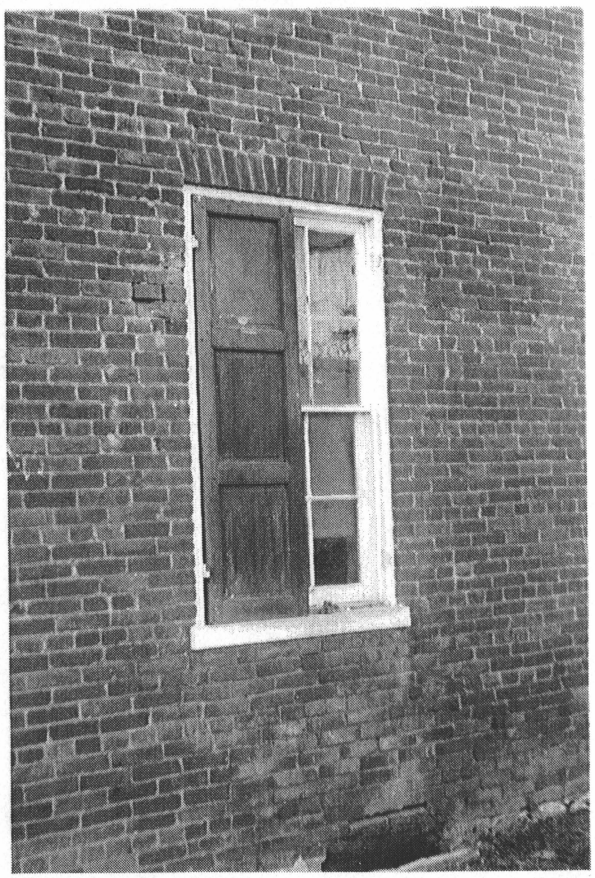
Bumblife
25% COCOA CONTENT



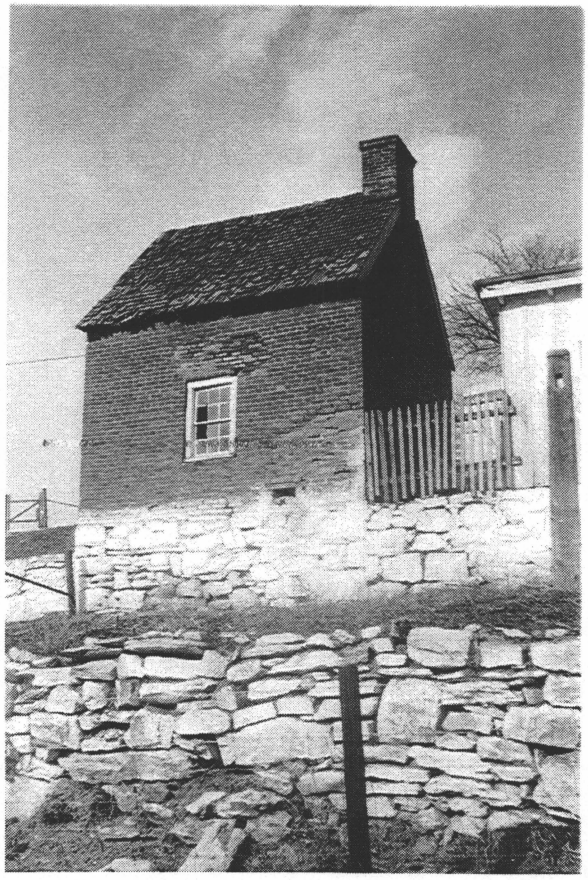
Historic Photo 9
Southeast corner of house from the northeast.
ANTI (P) 07A295 (1965)



Historic Photo 10
East entry door.
ANTI (P) 07A296 (1965)



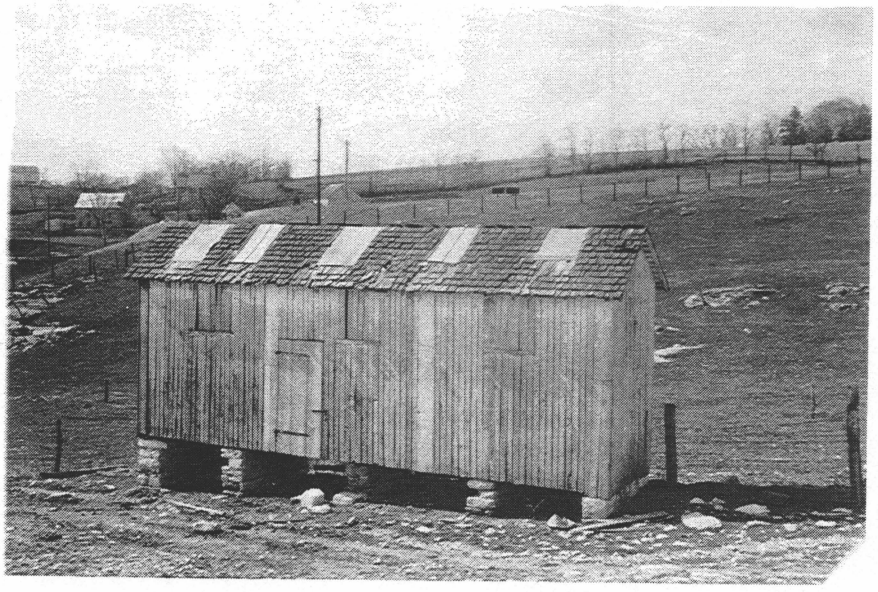
Historic Photo 11
East window.
ANTI (P) 07A297 (1965)



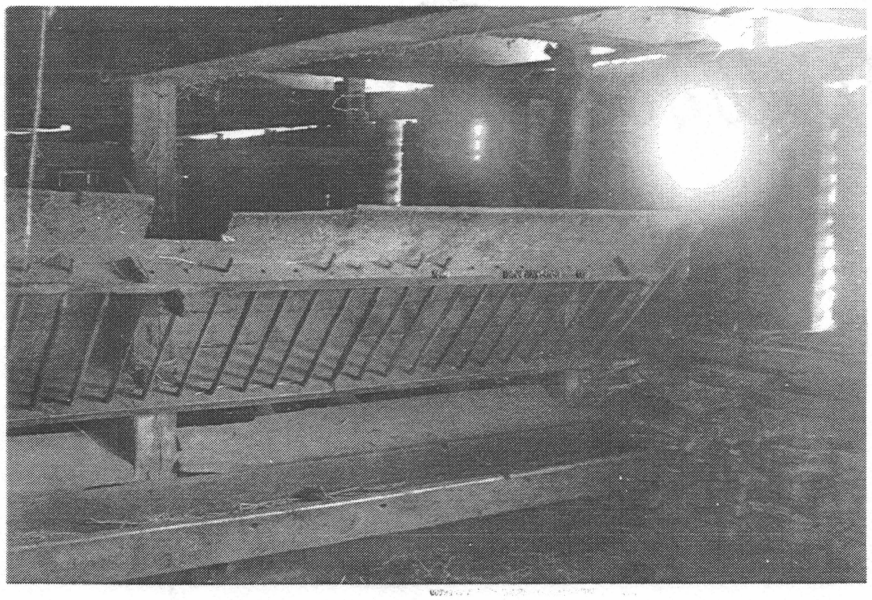
Historic Photo 12
Summer kitchen from the south.
ANTI (P) 07A302 (1965)



Historic Photo 13
Summer kitchen and shed from the south.
ANTI (P) 07A303 (1965)



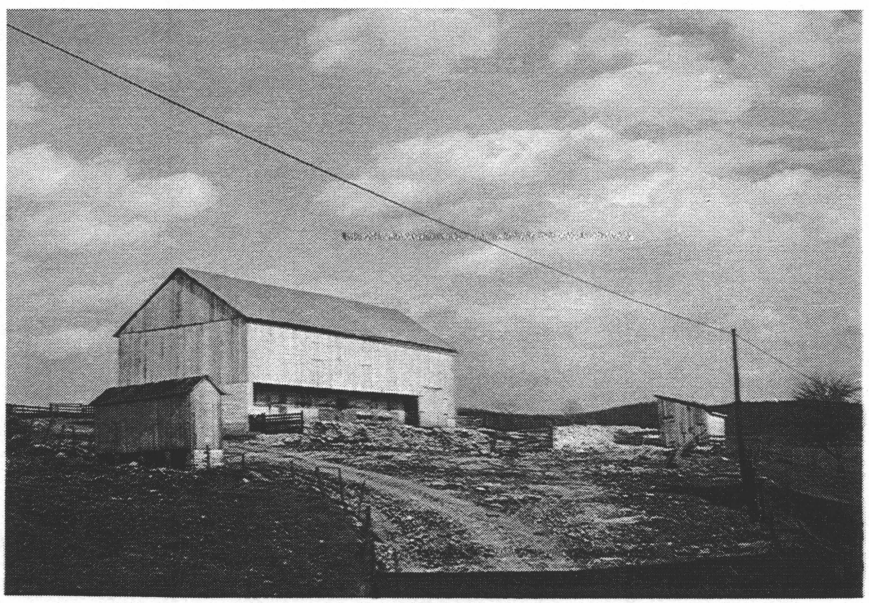
Historic Photo 14
Corn crib from the east.
ANTI (P) 07A304 (1965)



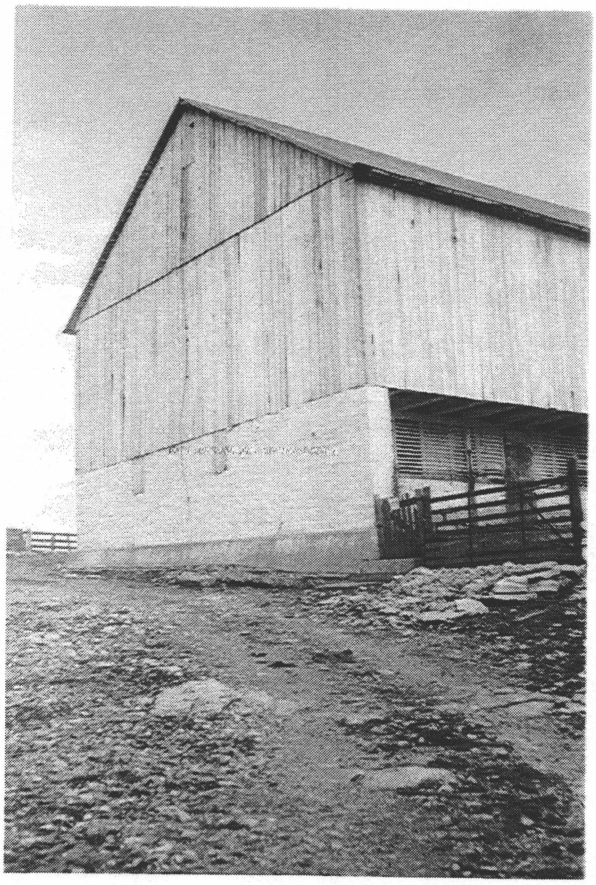
Historic Photo 15
Interior of barn.
ANTI (P) 07A310 (1965)



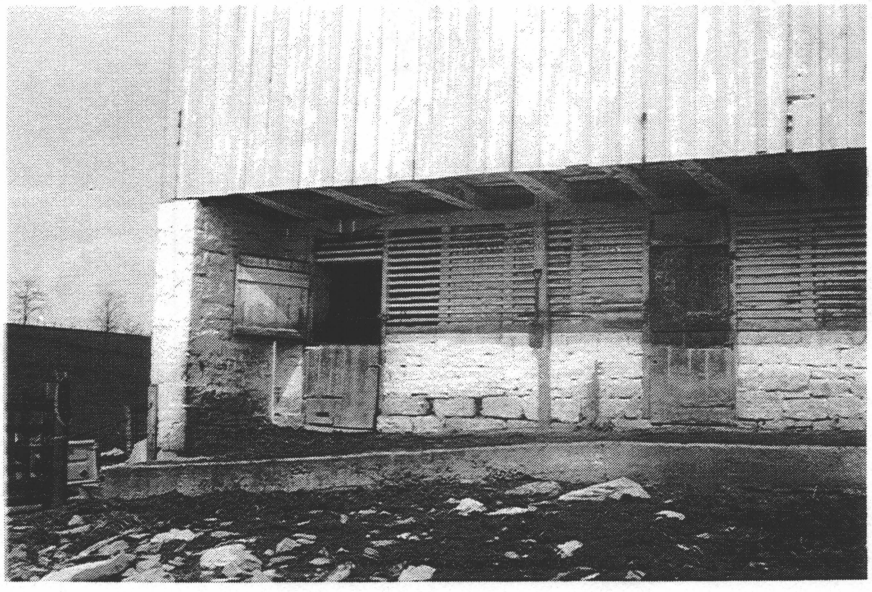
Historic Photo 16
Corn crib and barn from the south.
ANTI (P) 07A311 (1965)



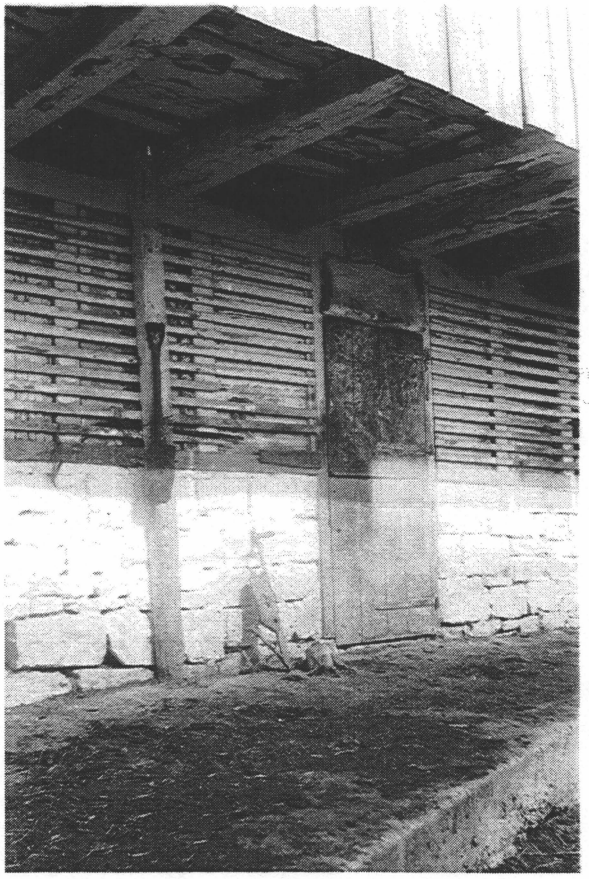
Historic Photo 17
Corn crib and barn from the southwest.
ANTI (P) 07A312 (1965)



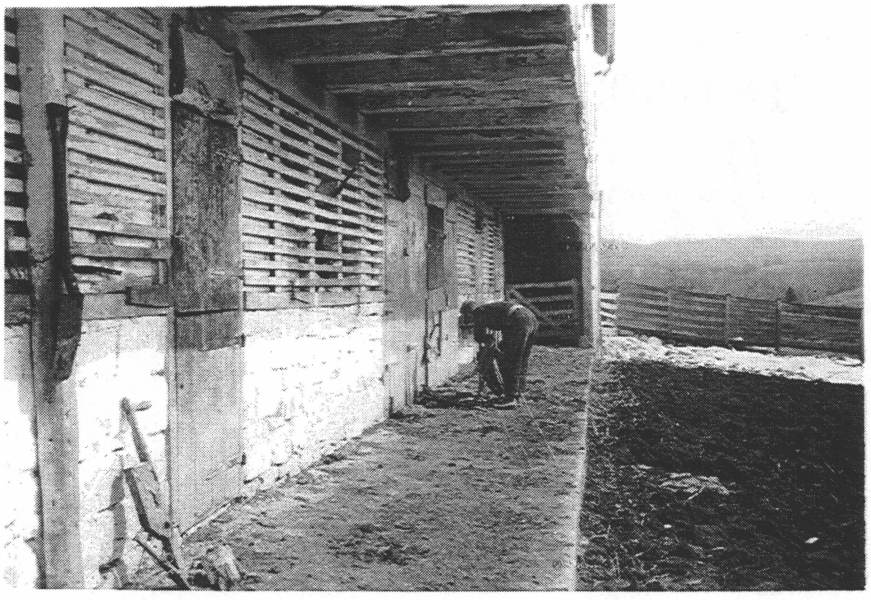
Historic Photo 18
Barn from southwest.
ANTI (P) 07A313 (1965)



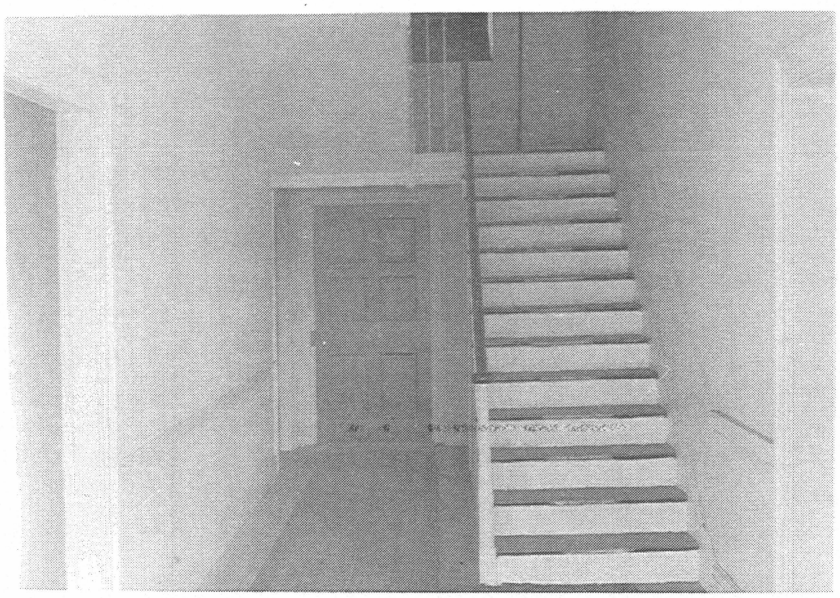
Historic Photo 19
Barn from the south.
ANTI (P) 07A314 (1965)



Historic Photo 20
Barn from the south.
ANTI (P) 07A315 (1965)



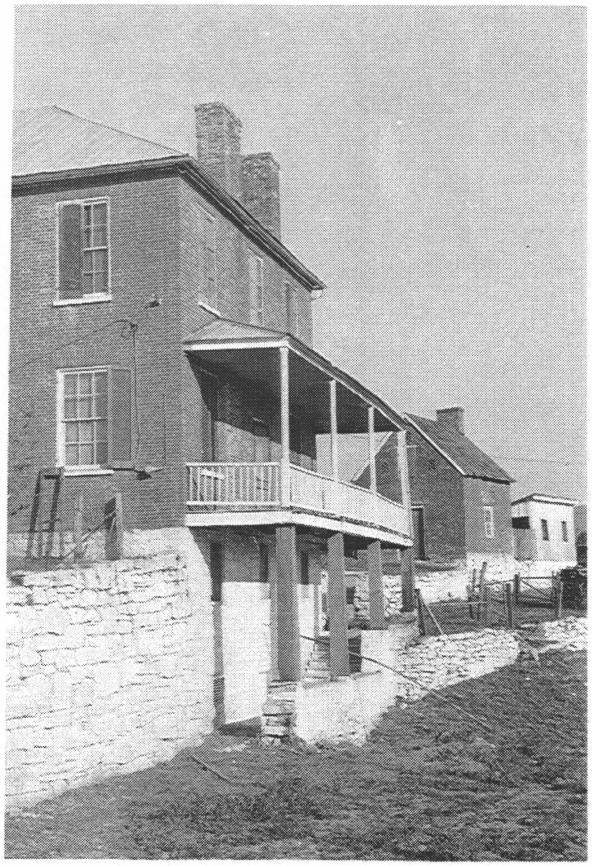
Historic Photo 21
Barn from the south.
ANTI (P) 07A316 (1965)



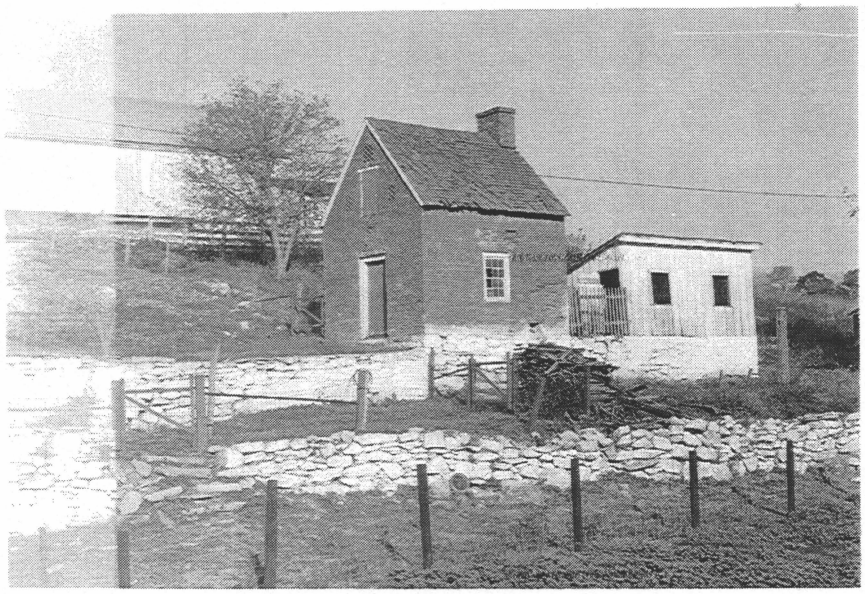
Historic Photo 22
Stair hall looking east.
ANTI (P) 07A317 (1965)



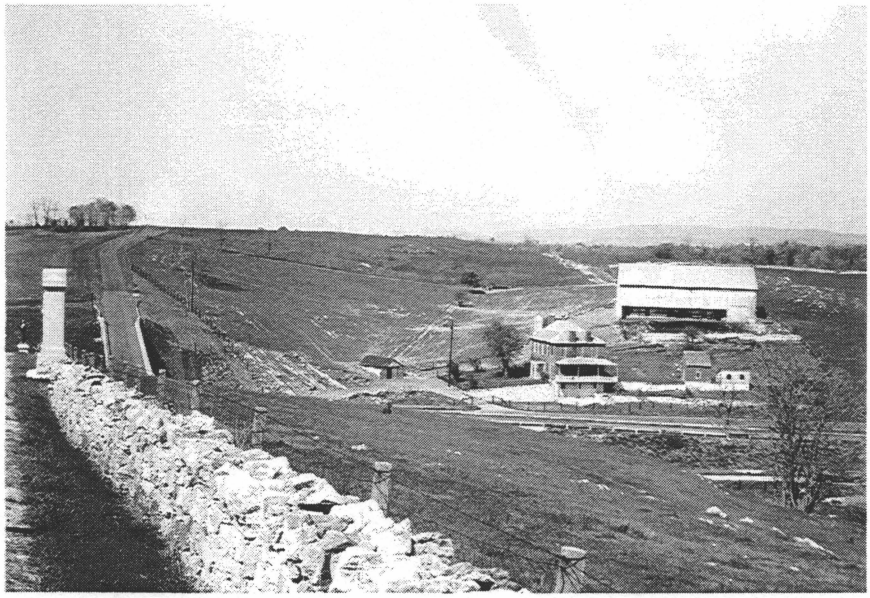
Historic Photo 23
West elevation.
ANTI (P) 07A318 (1965)



Historic Photo 24
South elevation from the southwest.
ANTI (P) 07A319 (1965)



Historic Photo 25
Summer kitchen, barn and shed.
ANTI (P) 07A320 (1965)



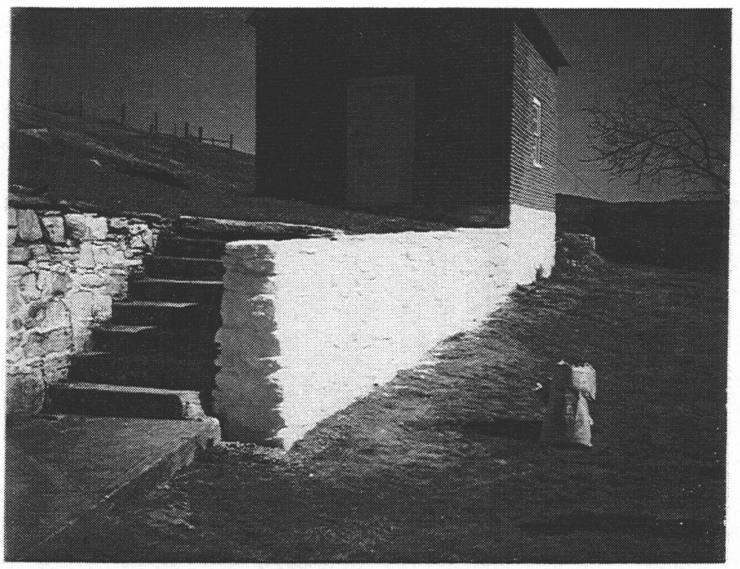
Historic Photo 26
View of farmstead from the southwest.
ANTI (P) 07A321 (1967)



Historic Photo 27
Rubble stone retaining wall being rebuilt.
ANTI (P) 07C02 (1974)



Historic Photo 28
Rubble stone retaining wall being rebuilt.
ANTI (P) 07C03 (1974)



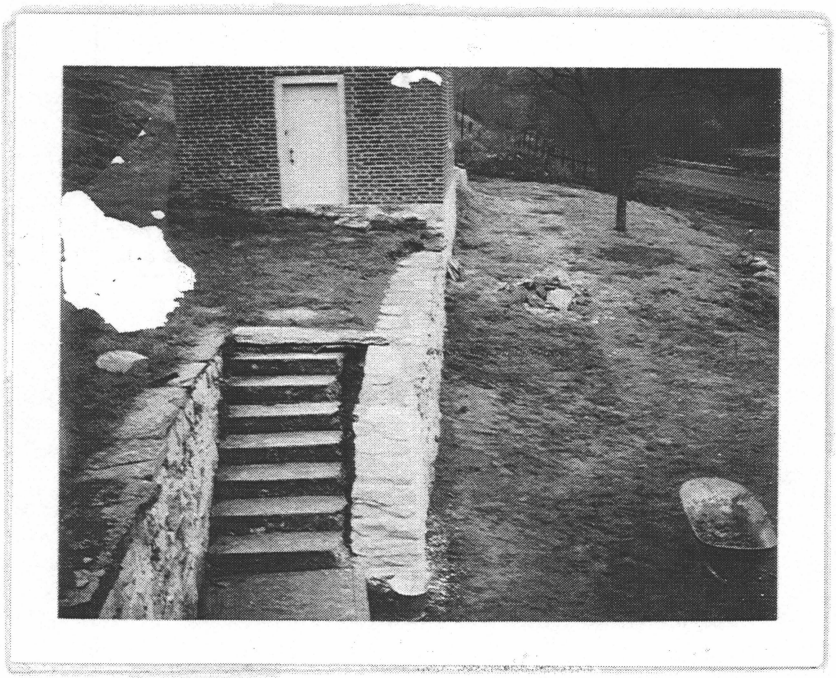
Historic Photo 29
Rebuilt rubble stone retaining wall.
ANTI (P) 07C05 (1974)



Historic Photo 30
Rubble stone retaining wall being rebuilt.
ANTI (P) 07C06 (1974)



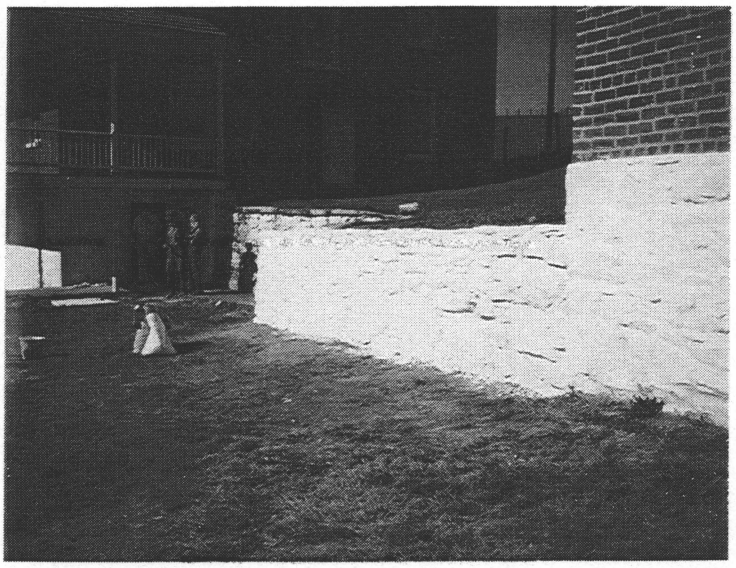
Historic Photo 31
Rubble stone retaining wall being rebuilt.
ANTI (P) 07C10 (1974)



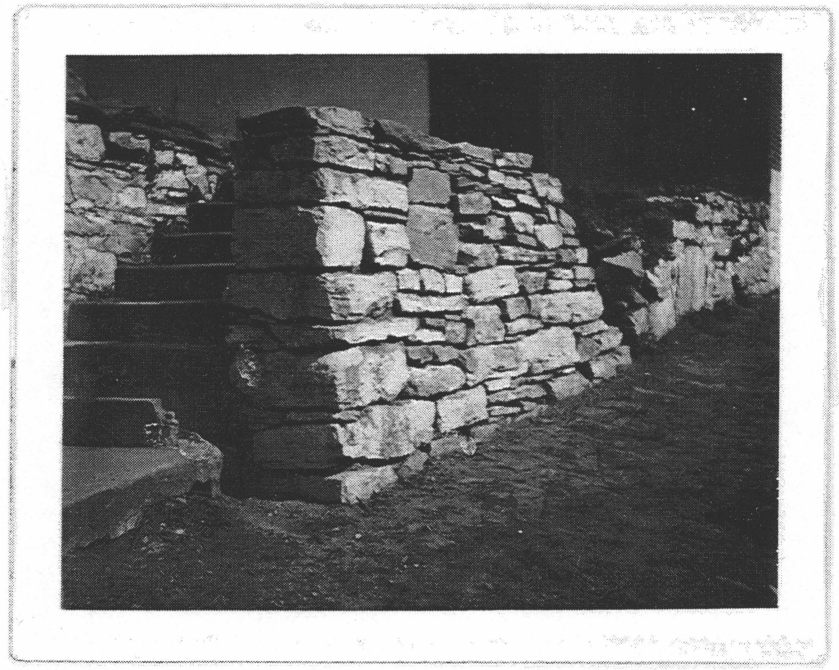
Historic Photo 32
Rebuilt rubble stone retaining wall.
ANTI (P) 07C11 (1974)



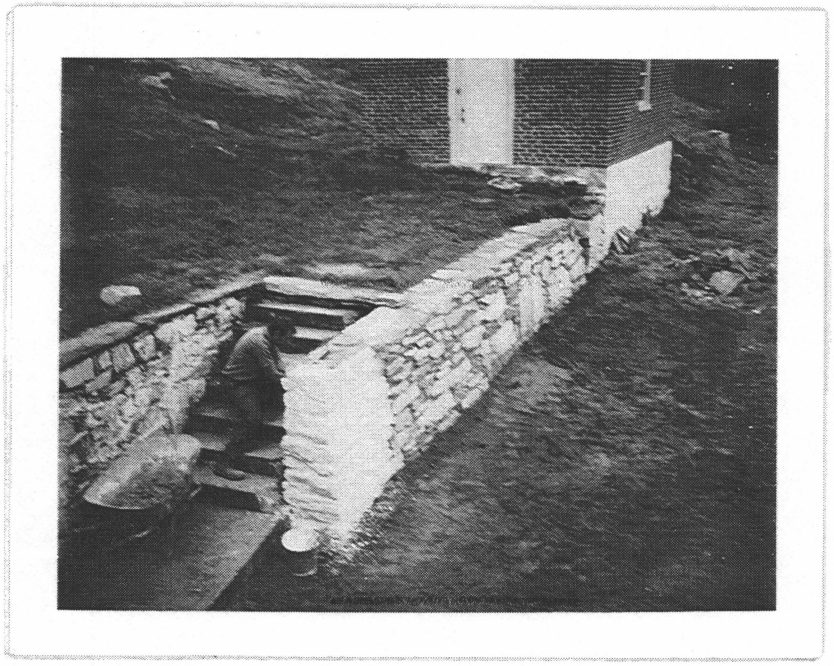
Historic Photo 33
Rubble stone retaining wall being rebuilt.
ANTI (P) 07C12 (1974)



Historic Photo 34
Rebuilt rubble stone retaining wall.
ANTI (P) 07C13 (1974)



Historic Photo 35
Rubble stone retaining wall being rebuilt.
ANTI (P) 07C14 (1974)



Historic Photo 36
Rebuilt rubble stone retaining wall.
ANTI (P) 07C15 (1974)



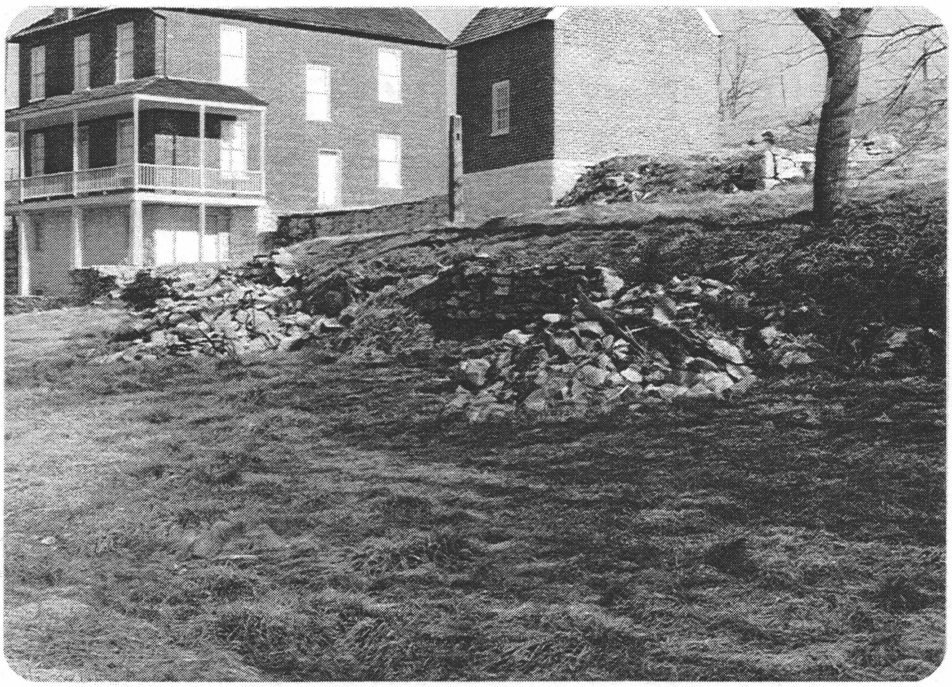
Historic Photo 37
South elevation.
ANTI (P) 07C17 (1980)



Historic Photo 38
Summer kitchen and retaining wall from the east.
ANTI (P) 07C19 (1980)



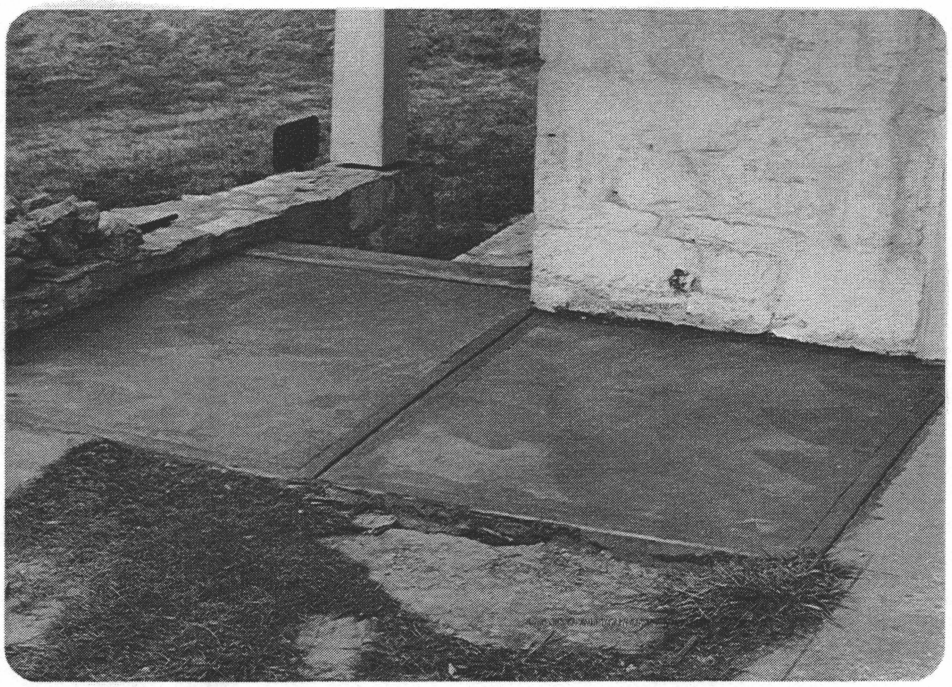
Historic Photo 39
Rubble stone retaining wall.
ANTI (P) 07C20 (1980)



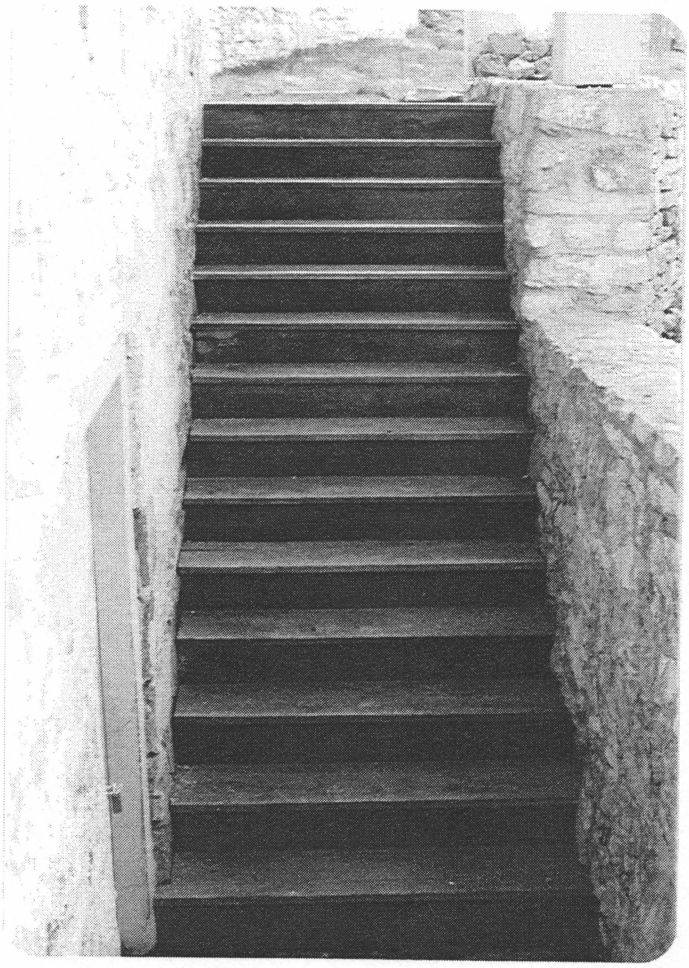
Historic Photo 40
Demolished retaining walls from the southeast.
ANTI (P) 07C21 (1980)



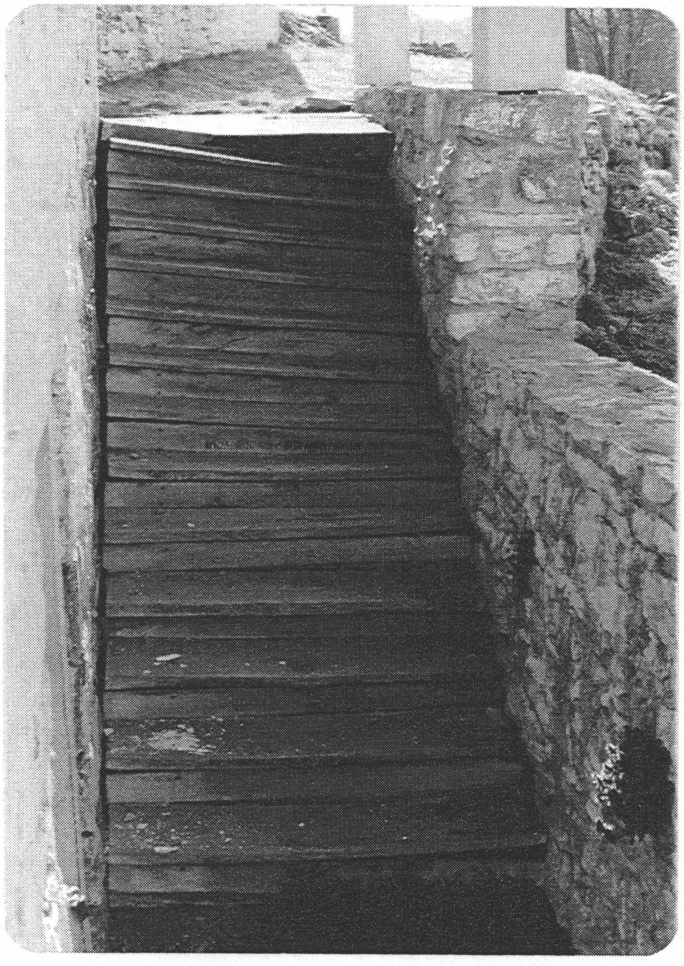
Historic Photo 41
Wood stairs to sub-basement being rebuilt.
ANTI (P) 07C22 (1980)



Historic Photo 42
Concrete slab at top of stairs to sub-basement.
ANTI (P) 07C23 (1980)



Historic Photo 43
Rebuilt stair to sub-basement.
ANTI (P) 07C24 (1980)



Historic Photo 44
Stair to sub-basement before rebuilding.
ANTI (P) 07C25 (1980)



Charles Ourand, "Map of the Battlefield of Antietam," 1904, detail showing Sherrick Farm.

North

Ourand Map 10, 12:00-12:15 pm.



division started from Harper's Ferry on
f the Potomac for Sharpsburg.

extended from the right of Walker's
Antietam about one mile and a third
es from Pleasant Valley and Harper's



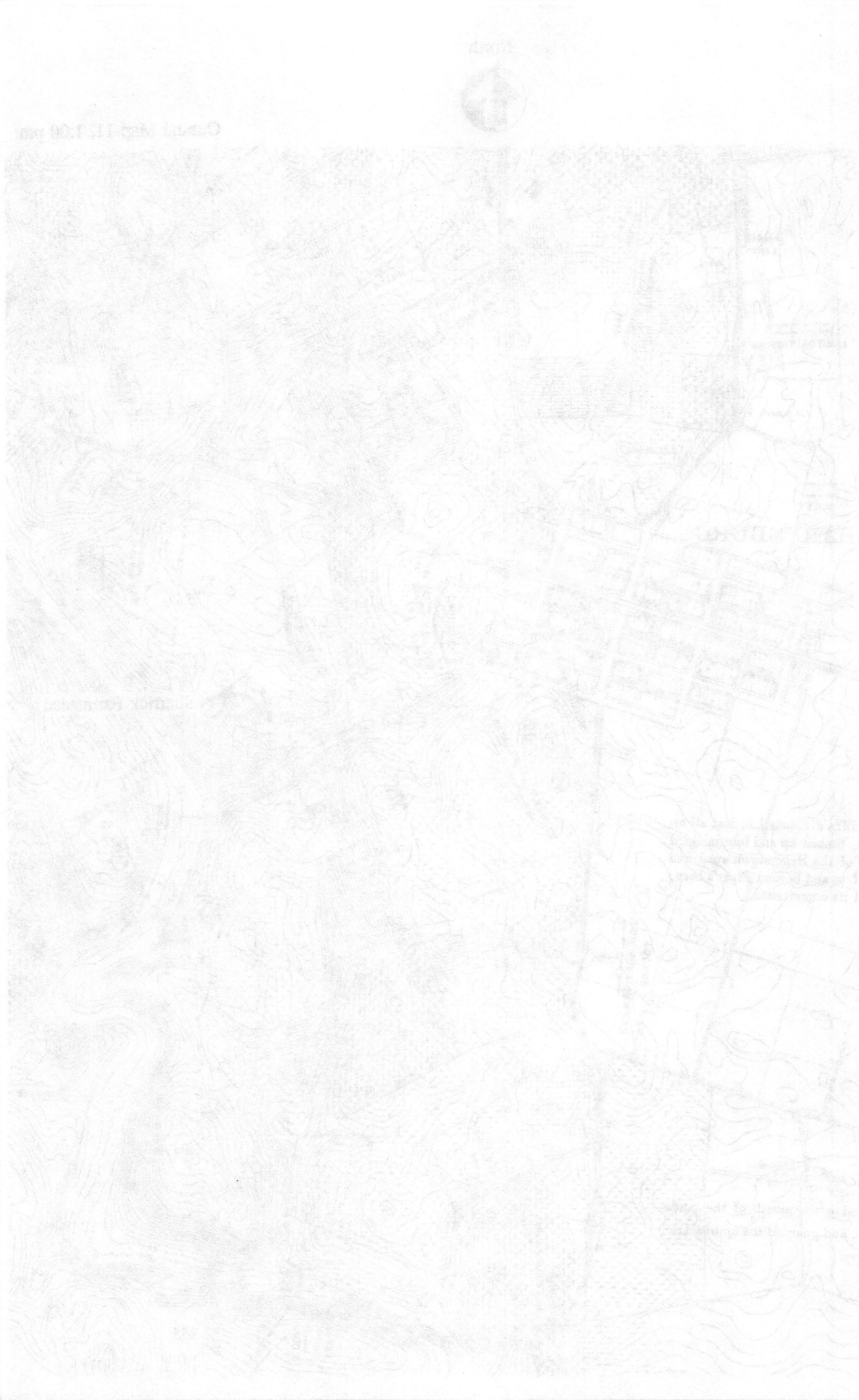
North

Ourand Map 11, 1:00 pm.



...ith's divisions had lost all or-
...g broken up and intermingled
...of the Hagerstown road and
...l to and beyond Piper's barn,
...l its organization.

...ed to the mouth of the Antie-
..., and guarded the approaches
...try.



North

Ourand Map 12, 3:30-3:45 pm.



North

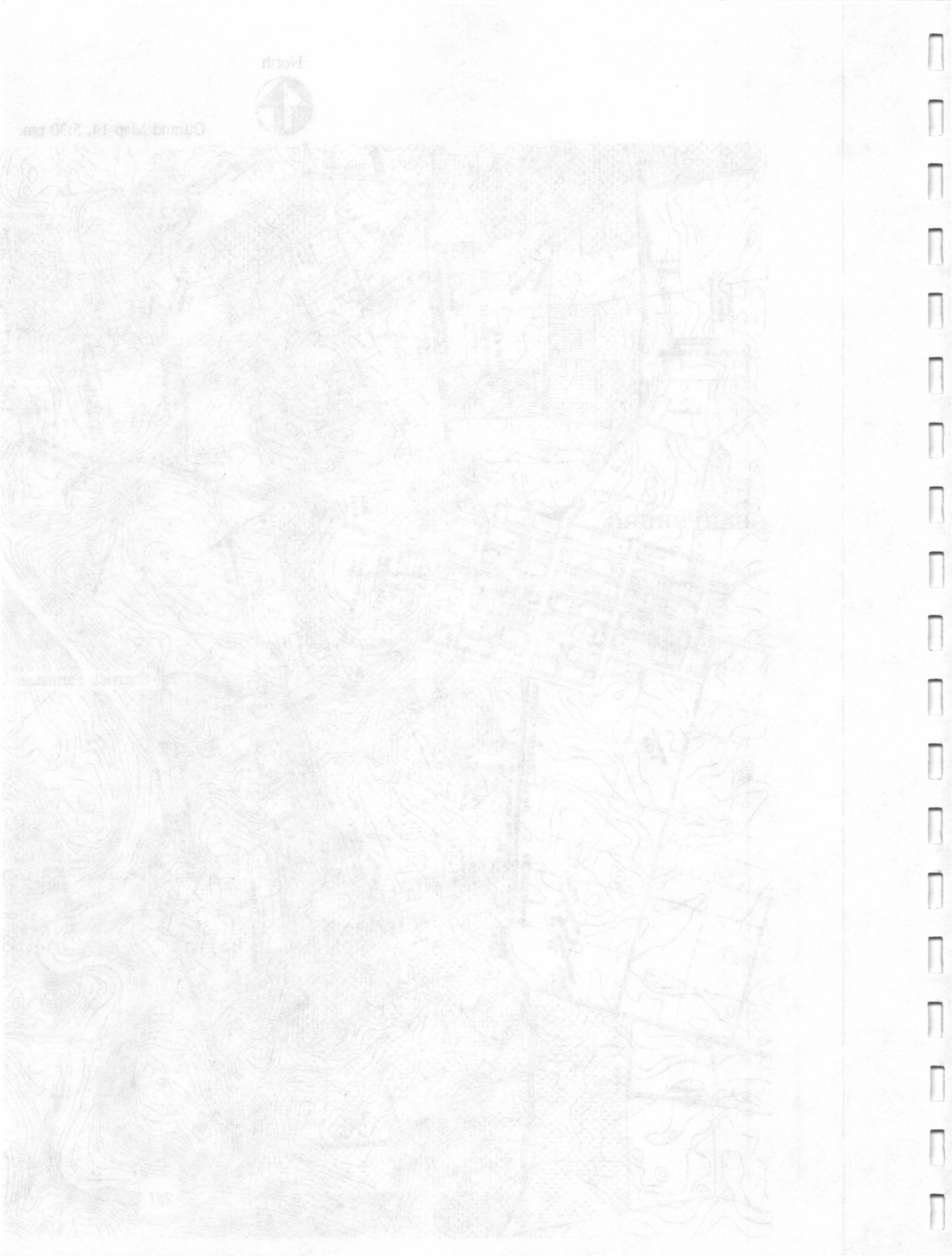
Ourand Map 13, 4:20 pm.

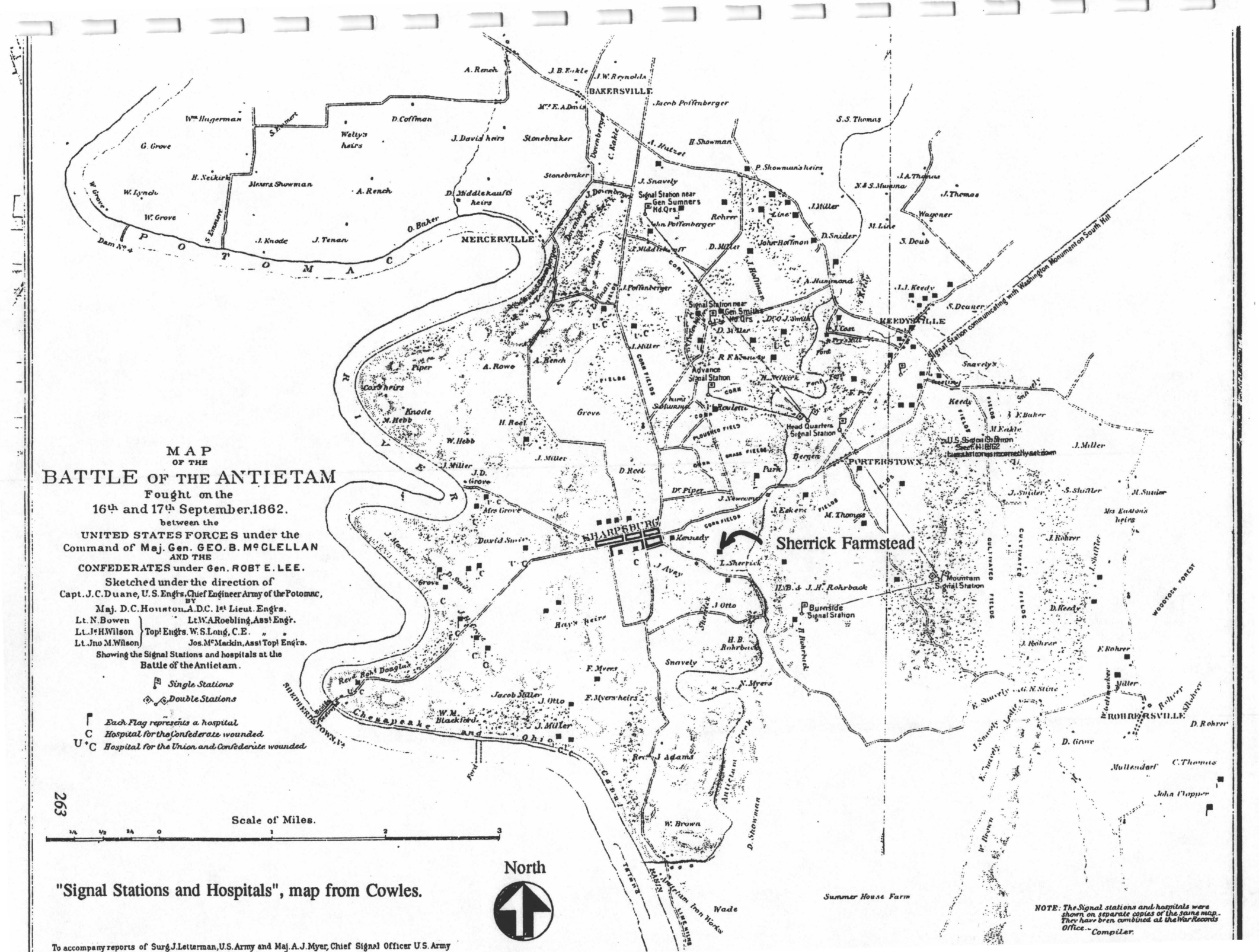


North

Ourand Map 14, 5:30 pm.







"Signal Stations and Hospitals", map from Cowles.

To accompany reports of Surg. J. Letterman, U.S. Army and Maj. A.J. Myer, Chief Signal Officer U.S. Army

APPENDIX C:
INVENTORY OF SIGNIFICANT MATERIALS

INTRODUCTION

So little of the Sherrick House has changed since the Civil War that almost all of the existing fabric is historically significant. This section inventories, room by room, all of the materials which are and are not significant, and summarizes the condition of the plaster and finishes in each room. To summarize the content of the inventory, the following materials are not significant:

- Electrical wiring, meters, boxes, switches, outlets, and light fixtures.
- Insulation on the basement ceiling and attic floor.
- Pump, tank, and piping for water from the spring.
- Replacement wood window sash.
- Replacement wood window exterior sills.
- Interior storm sash.
- Replacement components of wood doors (exterior doors at 1st floor).
- Rail, metal roof, wood framing, and sheathing above the west entry porch.
- Wood wainscot in the basement.
- Wood shingles on the roof.
- Plywood fireplace covers.

INVENTORY OF SIGNIFICANT MATERIALS

EXTERIOR

WEST ELEVATION

WINDOWS:	Six-over-six double-hung wood windows and frames, wood sills; four on first floor, five on second floor. Four light fixed transom window over entry door.
	Basement window, with wood bars in well.
DOOR:	1 1/2" six panel wood door, 4 light transom window, paneled jambs and head; stone threshold.
MASONRY:	Rubble stone foundation; red Flemish bond brick walls at first and second floors; flat arches over windows and door; corbelled brick cornice.
PORCH:	Wood columns, pilasters, cornice; 1" thick tongue-and-groove deck, wood deck framing, two steps.

WEST ELEVATION (CONT'D)

ALTERATIONS: Electric meter and service head added. Cedar shingle roof, metal gutters and downspout added. Roof of entry porch replaced and lowered. Railing above entry porch added. Benches at entry porch added. Components of wood door replaced. Steps and decking at entry porch replaced. Masonry pointed. Rubble stone foundation walls painted.

NORTH ELEVATION

WINDOWS: One six-over-six double-hung wood window and frame, at attic level.

MASONRY: Rubble stone foundation; red common bond brick walls at first floor, second floor and gable (header course every sixth course); flat arch over window. Two brick chimneys flush with face of wall.

MISCELLANEOUS: Wrought iron masonry wall tie (backward "S" shape) below window. Wood rake boards with beaded bottom edge.

ALTERATIONS: Wood window sill replaced. Masonry repointed.

EAST ELEVATION

WINDOWS: Six-over-six double-hung wood windows and frames, wood sills; two on first floor, two on second floor, one at stair landing. Basement window opening with horizontal bars.

DOOR: 1 1/2" six panel wood door to first floor, paneled jambs. Stone threshold. Beaded board door to basement, with six light fixed window.

MASONRY: Rubble stone foundation walls, retaining walls and steps; red common bond brick walls at first and second floors; flat arches over windows; corbelled brick cornice; wood lintel over door opening at basement.

ALTERATIONS: Masonry repointed. Concrete steps to 1st floor door added. Concrete landing at 1st floor door and basement door added. Concrete steps to basement added (at two locations between 1st floor and basement through the rubble stone retaining walls). Wood sills at windows replaced.

SOUTH ELEVATION

WINDOWS:	Six-over-six double-hung wood windows and frames, wood sills; three at basement, two at 1st floor, three at 2nd floor. Four light fixed transom window over entry door. Window opening at sub-basement, with wood bars.
DOORS:	At sub-basement, beaded board door with wrought iron strap hinges, wrought iron suffolk latch with bean ends, wood latch bar. At 1st floor, 1 1/2" six panel wood door, 3 light transom window, paneled jambs and head; stone threshold.
MASONRY:	Rubble stone foundation; red Flemish bond brick walls at first and second floors; flat arches over windows and door; corbelled brick cornice.
PORCH:	Wood columns at basement and 1st floor, wood railing, wood cornice; 1" thick tongue-and-groove deck, wood deck framing.
ALTERATIONS:	Cedar shingle roof, metal gutters and downspout added. Masonry repointed. Rubble stone foundation walls painted. Red paint and penciling on brick added.

INTERIOR

SUB-BASEMENT

SPRING ROOM

FLOOR:	Stone pavers on grade.
WALLS:	Rubble stone masonry with limewash finish on thin plaster.
CEILING:	Exposed floor joists and wood flooring; remnants of limewash finish.
DOORS:	Beaded board wood door, stone threshold.
HARDWARE:	Door: Hand-wrought suffolk latch with bean ends and wood latch bar; one pair hand-wrought strap hinges with bean ends.

SPRING ROOM (CONT'D)

MISCELLANEOUS:	Spring flowing from north wall and running through channel in floor.
ALTERATIONS:	Batt insulation and plywood added over window opening. Modern pump, expansion tank and piping installed at spring. Chain and padlock added to door. Original finishes on door and frame covered with paint.
PLASTER CONDITION:	Deterioration at doorway, on east and west walls.
FINISHES CONDITION:	Limewash deteriorated due to high moisture. "M.D. 1931 F.M." signed on joist in green paint.

COOL STORAGE

FLOOR:	Natural rock outcropping at north end; dirt.
WALLS:	Natural rock outcropping and unfinished rubble stone masonry.
CEILING:	Exposed wood joists and flooring, remnants of limewash finish.
WINDOWS:	Wood bars in wood frame.
MISCELLANEOUS:	Natural stone outcropping at north end.
ALTERATIONS:	Original finish on window bars and frame covered with paint.
FINISHES CONDITION:	Limewash deteriorated due to high moisture.

BASEMENT

KITCHEN

FLOOR:	3/4" thick, 2 1/2" wide pine tongue and groove.
WALLS:	Plaster on rubble stone (north, south, east); beaded board (west, around stair at northeast corner).
CEILING:	Remnants of removed lath and plaster ceiling.
FIREPLACE:	Plastered brick and stone fireplace and wood mantel on south wall; Wood lintel at opening.

KITCHEN (CONT'D)

DOORS:	1" beaded board door with six light window, to exterior (east wall), 1 1/8" beaded board door to storage room (north wall); 1" beaded board door to pantry (west wall); 3/4" beaded board door to closet under stair.
WINDOWS:	Six-over-six double-hung wood windows in wood frame; two at south wall.
HARDWARE:	Door to exterior: one pair Clark hinges; box lock.
	Door to closet below stair: one pair hand-wrought strap hinges; one pair HL hinges; wood turn block. Door to storage room: one pair Clark "Best" hinges; Norfolk hinges; box lock.
	Door to pantry: one pair 8" strap hinges; Norfolk latch.
MISCELLANEOUS:	Wood stair to 2nd floor, enclosed with beaded board walls.
ALTERATIONS:	Wood wainscot added to walls on south, east, north. Lath and plaster ceiling removed, batt insulation installed between joists. Wood cover installed over fireplace. Thimble installed in chimney over fireplace. Interior storm sash on windows. Original finishes covered by paint on wood mantel, wood walls, and plaster. Wood tongue-and-groove flooring may be a replacement floor. Sheet linoleum installed on top of wood floor.
PLASTER CONDITION:	Severe deterioration of plaster on all walls due to moisture on north, south. Plaster falling off masonry on east wall. Wood wainscot added to walls to cover deteriorated plaster. At ceiling, plaster and almost all of wood lath missing.
FINISHES CONDITION:	Limewash in poor condition on deteriorated plaster, typical.

PANTRY

FLOOR:	1" pine tongue-and-groove.
WALLS:	Plaster on rubble stone (north, south, west); beaded board with lime wash finish (east).
CEILING:	Exposed wood floor joists and wood flooring; limewash finish.

PANTRY (CONT'D)

DOORS:	1" beaded board door.
WINDOWS:	Six-over-six double-hung wood window with wood frame; one at south wall.
HARDWARE:	One pair 8" strap hinges; Norfolk latch.
ALTERATIONS:	Main electrical panel installed at southwest corner. Interior storm sash installed on window. Plaster walls covered with gypsum board. Ceiling insulated with 6" batt insulation. Floor sagging due to deterioration of framing.
PLASTER CONDITION:	Plaster deteriorated due to moisture on north, south and west walls, has been covered over with drywall, which is also deteriorated.
FINISHES CONDITION:	Limewash on ceiling and east wood wall peeling, loose.

STORAGE ROOM

FLOOR:	Stone pavers; natural rock outcropping; dirt.
WALLS:	Rubble stone masonry with limewash finish; natural rock outcropping.
CEILING:	Exposed wood floor joists, beams, and beaded board flooring, unfinished.
DOORS:	1 1/8" beaded board door.
WINDOWS:	Barred openings on east and west.
HARDWARE:	one pair Clark "Best" hinges; Norfolk latch; box lock.
MISCELLANEOUS:	Wood post supporting beam; limewash finish on walls and wood; miscellaneous timbers and wood constructions.
ALTERATIONS:	Ceiling light, wiring and switch installed; insulated panels (winter) and screened panels (summer) installed over window openings.
FINISHES CONDITION:	Limewash deteriorated on wood surfaces.

FIRST FLOOR

STAIR HALL

FLOOR:	1" thick, 4 1/4" - 5 1/4" wide random width tongue-and-groove pine flooring, stained at perimeter.
WALLS:	Lath and plaster (north); plaster on brick masonry (south, east and west).
BASE:	6" high wood (moulding Set "A").
CHAIR RAIL:	3 3/4" high wood (moulding set "A").
CEILING:	Lath and plaster.
DOORS:	One 1 1/8" wood door to closet under stair: grained finish and six raised panels with applied mouldings on stair hall side; no finish and flat panels on closet side; wood threshold.
	Two 1 1/2" wood doors, to parlor and dining room: grained finish and six raised panel with applied mouldings both sides; wood casing; wood thresholds.
	Two 1 1/2" wood doors to exterior: six panel doors with applied mouldings both sides; wood casing and stone thresholds (parts of these doors have been replaced); panels on west entry prismatic on exterior.
	1 3/8" door to bedroom: six raised panels with mouldings on stair hall side; flat panels on bedroom side; grained hall side.
WINDOWS:	Fixed four-light transom window over entry door.
DOOR/WINDOW CASING:	5" wide wood (moulding set "A").
HARDWARE:	Doors to parlor, dining room, and exterior: one pair 4" cast iron Baldwin hinges; 6" x 4 1/2" Carpenter latches.
	Door to bedroom: One pair Clark "Best" hinges; 6" x 4 1/2" Carpenter latch.
	Door to closet under stair; One pair Clark "Best" hinges; Norfolk latch.
MISCELLANEOUS:	Wood stairs, balusters, handrails, and newel post.

STAIR HALL (CONT'D)

ALTERATIONS:	Parts replaced on doors to exterior at east and west. Ceiling light fixture, switches, electrical outlets and unit heater installed. Original finishes covered with paint on wood base, chair rail, mantel, sash, window frame, and casings, and on plaster walls and ceiling.
PLASTER CONDITION:	Minor cracks in north wall. Base separated from plaster at bottom of stairs. Switch and receptacle cut into north wall. Light fixture cut into ceiling.
FINISHES CONDITION:	Walls pink over white. Mouldings white over white. Ceiling cream over white. Masking tape over paint at cracks in entry door. Doors painted over graining.

DINING ROOM

FLOOR:	1" thick, 4" to 5" wide random width tongue-and-groove pine; approximately 2'-6" at perimeter stained dark brown, remainder unfinished.
WALLS:	Lath and plaster (east) plaster on brick masonry (north, south and west).
BASE:	6" high wood (moulding set "A").
CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "A").
CEILING:	Lath and plaster.
FIREPLACE:	Plaster on brick firebox; plastered brick fireplace surround with marbleized finish; wood mantel; mortar hearth.
DOORS:	One 1 1/2" door to stair hall: 6 raised panels with mouldings both sides; grained both sides; wood threshold. One 1 1/2" door to south porch: 6 raised panels with mouldings both sides; wood threshold. One 1 3/8" door to stair: 6 raised panels with mouldings and graining on dining room side; flat panels on stair side; wood threshold.

DINING ROOM (CONT'D)

DOORS (CONT'D):	One 1 3/8" door to servant room: 6 raised panels with applied mouldings on dining room side; raised panels without mouldings on servant room side; graining both sides; wood threshold.
WINDOWS:	Six-over-six double-hung wood windows, two on west side, one on south side.
DOOR/WINDOW CASING:	5" wide wood (moulding set "A").
HARDWARE:	Doors to stair hall, south porch, and servant room: 4" x 4" Baldwin cast iron hinges; Carpenter latches.
	Door to stair: 3 1/2" x 3" Clark hinge; elbow latch.
ALTERATIONS:	Rugs removed. Ceiling light, switches, electrical outlets and unit heater installed. Interior storm sash installed over windows. Wood cover installed over fireplace. Thimble installed in chimney over fireplace. Original finishes covered with paint on wood base, chair rail, mantel, sash, window frame, and casings, on stair side of door, and on plaster walls and ceiling.
PLASTER CONDITION:	At south wall, missing sections of plaster to east and west of wood mantel, exposing brick. At west wall, crack under both windows, from base to chair rail. At east wall, 3' long crack from upper corner of basement door. In ceiling, holes cut for stovepipe and light fixture. Two surface-mounted receptacles in baseboard. One flush-mounted receptacle and two switches cut in walls.
FINISHES CONDITION:	Walls light blue over white. Some peeling of paint over the mantel and under north west window from moisture infiltration. Ceiling cream over white. Wood white over cream. Walnut graining on doors in good condition, except overpainted in blue on stair side of door to basement.

PARLOR

FLOOR:	1" thick, 4" - 5 1/2" wide random width tongue-and-groove pine, stained at perimeter.
WALLS:	Lath and plaster (east and south); plaster on brick masonry (north and west).
BASE:	6" high wood (moulding set "A").

PARLOR (CONT'D)

CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "A").
CEILING:	Lath and plaster.
FIREPLACE:	Plastered brick firebox; marbleized plastered surround; wood mantel; brick hearth.
DOORS:	1 1/2" door to stair hall: raised panel with mouldings both sides; grained both sides; wood threshold.
WINDOWS:	Two six-over-six double-hung wood windows, panelled jambs and heads.
DOOR/WINDOW CASING:	5" wide wood (moulding set "A").
HARDWARE:	Door: one pair 4" x 4" Baldwin hinges; Carpenter latch.
ALTERATIONS:	Ceiling light fixture, switch, electrical outlets and unit heater installed. Original finishes covered with paint on wood base, chair rail, mantel, sash, window frame, and casings, and on plaster walls and ceiling. Interior storm sash installed on windows. Thimble installed in chimney over fireplace.
PLASTER CONDITION:	Minor cracks typical in walls. At south wall, hole cut in plaster for switch, in base for recessed receptacle, 2" by 4" hole in plaster in wall next to switch, exposing wood lath. At east wall, hole cut for recessed receptacle.
FINISHES CONDITION:	Walls blue paint over light green paint over white paint. Wood mouldings white. Mantel white over dark brown. Ceiling cream. Marbleized surround, with some peeling. Walnut graining on door in good condition.

SERVANT ROOM AND STAIR

FLOOR:	1" thick, 4" - 5 1/2" random width tongue-and-groove pine, perimeter stained dark brown, remainder unfinished.
WALLS:	Lath and plaster (west, north walls of room); plaster on brick masonry (south, east walls of room, north wall of stair); beaded board (south wall of stair).
BASE:	6 1/8" high wood (Moulding Set "B").
CHAIR RAIL/SILL:	3 3/4" high wood (Moulding Set "B").

SERVANT ROOM AND STAIR (CONT'D)

CEILING:	Lath and plaster.
DOORS:	One 1 3/8" door to dining room: 6 raised panels with applied mouldings on dining room side; raised panels without mouldings on servant room side; graining both sides; wood threshold. Two 1 1/8" doors to stairs: six raised panels without mouldings, grained on servant room side; flat panels on stair side; wood thresholds. Two 1 1/8" doors to closet in southwest corner: four raised panels without mouldings above, one raised panel without mouldings below, grained on servant room side; unfinished flat panels on closet side.
WINDOWS:	Six-over-six double-hung wood windows; wood frame; one each on east and south.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B") at door to dining room, 1 1/4" wide wood (moulding set "B") at doors to closets, stairs.
HARDWARE:	Door to dining room: one pair 4" x 4" Baldwin hinges; Carpenter latch. Two doors to stairs: one pair 3 1/2" x 3" Clark hinges; Norfolk latches. Two doors to closet: one pair 2" x 3" Clark hinges; keyed lock.
MISCELLANEOUS:	Wood stairs.
ALTERATIONS:	Closet used as electrical chase. Rugs removed. Ceiling light and switches, electrical outlets and unit heater installed. Interior storm sash installed on windows. Metal thimble installed at face of chimney. Original finishes covered with paint on wood base, chair rail, peg rail, stair sides of doors, sash, window frame, and casings, and on plaster walls and ceiling.

SERVANT ROOM AND STAIR (CONT'D)

PLASTER CONDITION:	At west wall, patched hole in plaster at north end, one receptacle recessed in plaster, two receptacles surface-mounted on base. At north wall, 3' long crack from upper left corner of 2nd floor door. At east wall, base has separated from plaster, 4" long by 1/2" high hole in plaster above base, both north and south ends, minor cracks under window. At south wall, stovepipe hole, patched plaster under stovepipe hole, minor cracks under window. At ceiling, hole cut for light fixture.
FINISHES CONDITION:	Walls pink over white. Damage from moisture infiltration at south east corner. Ceiling cream over white. Doors grained, good condition except room side of door to 2nd floor has sun damage, and blue overpaint on stair side of door to basement.

1ST FLOOR BEDROOM

FLOOR:	1" thick, 4" - 5 1/2" wide random width tongue-and-groove pine.
WALLS:	Lath and plaster (west and south); plaster on brick masonry (east and north).
BASE:	6 1/8" high wood (moulding set "B").
CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "B").
PEG RAIL:	2 1/2" wide wood moulding and 2" pegs (south and west walls).
CEILING:	Lath and plaster.
FIREPLACE:	Plastered brick firebox, plaster surround, wood mantel, mortar hearth.
DOORS:	1 3/8" door to hall: six raised panels with mouldings on hall side; flat panels on bedroom side; grained both sides.
WINDOWS:	Six-over-six double-hung wood windows; wood frame; one on east.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B").
HARDWARE:	Door to hall: One pair 4" x 4" Baldwin hinges; Carpenter latch.

1ST FLOOR BEDROOM (CONT'D)

ALTERATIONS:	Rugs removed. Ceiling light and switches, electrical outlets and unit heater installed. Interior storm sash installed on windows. Metal thimble installed at chimney. Original finishes covered with paint on wood base, chair rail, peg rail, sash, window frame and casings, and on plaster walls and ceiling.
PLASTER CONDITION:	At west wall, wide, 2' long vertical crack above peg rail, wide crack between chair rail and peg rail, surface-mounted receptacle on wall, recessed receptacle cut in base. At north wall, crack at joint with west wall, hole for stovepipe. At east wall, crack at joint with south wall, crack from corner of window to ceiling, surface-mounted receptacle. At south wall, three cracks above pegrail and door to ceiling, switch recessed in wall. At ceiling, hole cut for light fixture.
FINISHES CONDITION:	Walls and ceilings white on white. Wallpaper fallen from walls except at east wall below chair rail north of window, north wall above chair rail 2/3 remains, miscellaneous small patches and narrow strip at ceiling. Miscellaneous pencil graffiti on plaster. Base dark greenish brown. Fireplace black with light colored spattered finish, over cream paint. Other mouldings light olive color. Door painted light olive over cream on room side.

SECOND FLOOR

STAIR HALL

FLOOR:	1" thick, 3 1/2" - 5 1/2" wide random width tongue-and-groove pine, with dark brown stain at perimeter.
WALLS:	Lath and plaster (north, west); plaster on brick masonry (south and east).
BASE:	6 1/8" high wood (moulding set "B").
CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "B").
CEILING:	Lath and plaster.
DOORS:	(See doors to bedrooms and dressing room).

STAIR HALL (CONT'D)

WINDOWS:	Six-over-six double-hung wood window; wood frame; one on east at stair landing.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B").
HARDWARE:	(See doors to bedrooms and dressing room).
MISCELLANEOUS:	Wood stair, balusters, handrail.
ALTERATIONS:	Rugs removed. Ceiling light and switches, electrical outlets and unit heater installed. Interior storm sash installed on window. Original finishes covered with paint on wood base, chair rail, peg rail, sash, window frame, casings, stairs, handrails and balusters, and on plaster walls and ceiling. Floor boards removed and reinstalled for wiring.
PLASTER CONDITION:	At west wall, long diagonal crack, roughly patched, recessed receptacle with rough patches, switch. At north wall, long roughly patched diagonal crack, many minor cracks from upper part of doors, hole for switch cut in plaster. At east wall, water damage to plaster between window and stair landing, four roughly patched diagonal cracks, cracks from upper corners of door casings. At ceiling, hole cut for light fixture, minor cracks.
FINISHES CONDITION:	Walls pink over white, with pink over the plaster patches. Mouldings white over white, typical. Doors facing stair hall walnut grained in good condition.

NORTHWEST BEDROOM

FLOOR:	1" thick, 4" - 6 1/2" thick random width tongue-and-groove pine.
WALLS:	Lath and plaster (south and east walls); plaster on brick masonry (north and west walls).
BASE:	6 1/8" high wood (moulding set "B").
CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "B").
CEILING:	Lath and plaster.
FIREPLACE:	Plastered brick fireplace, plaster surround, wood mantel, brick hearth.

NORTHWEST BEDROOM (CONT'D)

DOORS:	One 1 3/8" doors to stair hall: six raised panels with integral mouldings on stair hall sides; flat panels on bedroom sides; grained both sides.
WINDOWS:	Six-over-six double-hung wood windows; wood frame; two on west wall.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B").
HARDWARE:	Door to hall: One pair 4" x 4" Baldwin hinges; Carpenter latch.
ALTERATIONS:	Rugs removed. Ceiling light, switches, electrical outlets and unit heater installed. Interior storm sash installed on windows. Metal thimble at chimney. Original finishes covered with paint on wood base, chair rail, mantel, sash, window frame and casings, and on plaster walls and ceiling. Floor boards removed and replaced for wiring.
PLASTER CONDITION:	At west wall, cracks from upper right of north window to ceiling and from lower left of window to base. At north wall, hole for stovepipe, 3" by 3" patch of plaster missing, exposing brick, base and edge of mantel separated from plaster. At east wall, minor diagonal cracks up from the base, recessed receptacles in wall and base. On south wall, long diagonal crack from chair rail to ceiling with rough patches, chair rail and base separated, divot in wall from door knob, switch in wall and receptacle in base. Moisture damage at ceiling, cracks from north to south at center and east, miscellaneous cracks, 2' by 1' patch of plaster missing, exposing lath, hole cut for light fixture.
FINISHES CONDITION:	Walls pale greenish blue over white. Ceiling white over cream. Mouldings and mantels mustard over brick red over cream. Paint damaged in areas of plaster water damage. Door walnut grained in good condition.

NORTHEAST BEDROOM

FLOOR:	1" thick, 4" - 6" wide random width tongue-and-groove pine.
WALLS:	Lath and plaster (east and south); plaster on brick masonry (north and east).
BASE:	6 1/8" high wood (moulding set "B").

NORTHEAST BEDROOM (CONT'D)

CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "B").
PEG RAIL:	2 1/2" wide wood with 2" pegs (south and west walls).
CEILING:	Lath and plaster.
DOORS:	One 1 3/8" door,to stair hall: six raised panels with integral mouldings on stair hall sides; flat panels on bedroom sides; grained both sides. One 1 1/8" door to closet: six raised panels without mouldings, grained on bedroom side; unfinished flat panels on closet side.
WINDOWS:	Six-over-six double-hung wood windows; wood frame; one on east wall.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B").
HARDWARE:	Door to hall: One pair 4" x 4" Baldwin hinges; Carpenter latch. Closet door: Keyed latch, one pair hinges.
ALTERATIONS:	Rugs removed. Ceiling light and switches, electrical outlets and unit heater installed. Interior storm sash installed on windows. Metal thimble at chimney. Original finishes covered with paint on wood base, chair rail, peg rail, sash, window frame and casings, and on plaster walls and ceiling. Floor board removed and replaced for wiring.
PLASTER CONDITION:	At west wall, five minor cracks, receptacle recessed in wall with rough patches, receptacle recessed in base. At north wall, cracks up from both corners of closet doors, hole for stovepipe. At east wall, crack under window, 2" by 1 1/2" hole below sill, exposing brick, baseboard separated from wall. At south wall, six diagonal cracks at the east end, receptacle recessed in base. At ceiling, hole for light fixture.
FINISHES CONDITION:	Walls and mouldings light green over white. Ceiling peeling cream over white on south half, white on north half. Doors grained, except back of closet door unfinished. Back of closet white, edges of shelves green.

SOUTHWEST BEDROOM

FLOOR:	1" thick, 4" - 5 3/4" wide random width tongue-and-groove pine.
WALLS:	Lath and plaster (east wall); plaster on brick masonry (north, west and south walls).
BASE:	6 1/8" high wood (moulding set "B").
CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "B").
CEILING:	Lath and plaster.
FIREPLACE:	Plastered brick fireplace; wood mantel; brick hearth.
DOORS:	One 1 3/8" door to stair hall: six raised panels with integral mouldings on stair hall side; raised panels without mouldings on bedroom side; grained both sides. One 1 3/8"" door to nursery: six raised panels without mouldings on bedroom side, flat panels on nursery side; grained on bedroom side.
WINDOWS:	Six-over-six double-hung wood windows; wood frame; two on south wall, two on west wall.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B").
HARDWARE:	Doors: One pair Clark hinges each door; Carpenter latches
ALTERATIONS:	Rugs removed. Ceiling light, switches, electrical outlets and unit heater installed. Interior storm sash installed on windows. Metal thimble at chimney. Original finishes covered with paint on wood base, chair rail, peg rail, mantel, window frame, sash and casings, nursery side of door, and on plaster walls and ceiling. Floor boards removed and replaced for wiring.
PLASTER CONDITION:	At west wall, two cracks below south window, one crack above and below north window, receptacle recessed in base. North wall in good condition. At east wall, switch and receptacle recessed in wall, receptacle recessed in base. At south wall, water damage in upper left of chimney breast, hole for stovepipe, crack below west window, base separated from plaster east of the fireplace. At ceiling, water damage at south east corner, long but minor crack.

SOUTHWEST BEDROOM (CONT'D)

FINISHES CONDITION:	Walls light blue over white. Mouldings and fireplace mantel mustard over cream.

DRESSING ROOM

FLOOR:	1" thick, 4 1/4" - 6 1/4" wide random width tongue-and-groove pine, dark brown stain at perimeter.
WALLS:	Lath and plaster (north, south and east); plaster on brick masonry (west).
BASE:	6 1/8" high wood (moulding set "B").
SILL:	3 3/4" high wood (moulding set "B") (no chair rail).
PEG RAIL:	2 1/2" wide wood with 2" pegs (north, south, east and west walls).
CEILING:	Lath and plaster.
DOORS:	One 1 3/8" door to hall: six raised panels with integral mouldings on hall sides; flat panels on dressing room side; grained both sides.
WINDOWS:	Six-over-six double-hung wood window; wood frame; one on east wall.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B").
HARDWARE:	Door to hall: One pair Clark hinges; Carpenter latch.
ALTERATIONS:	Ceiling light, switch and electrical outlet installed. Interior storm sash installed on window. Original finishes covered with paint on wood base, peg rail, window frame, sash and casings, and on plaster walls and ceiling. Stovepipe hole cut in floor, patched with plywood. Floor board removed and replaced for wiring.
PLASTER CONDITION:	At west wall, cracks above and below window, base separated from plaster. At north wall, miscellaneous diagonal cracks, roughly patched, crack at joint with west wall. At east wall, long diagonal crack, roughly patched, crack at joint with north wall. South wall in good condition.
FINISHES CONDITION:	Walls and ceiling pink over white. Mouldings white over pink over cream.

NURSERY

FLOOR:	1" thick, 3 3/4" - 5 1/2" wide random width tongue-and-groove pine (verify widths, etc.).
WALLS:	Lath and plaster (east wall); plaster on brick masonry (north, south and west walls).
BASE:	6 1/8" high wood (moulding set "B").
CHAIR RAIL/SILL:	3 3/4" high wood (moulding set "B").
CEILING:	Lath and plaster.
DOORS:	One 1 3/8" door, to southwest bedroom: six raised panels without mouldings on bedroom side, flat panels on nursery side; grained on bedroom side, painted on nursery side. One 1 1/8" door, to closet: three raised panels without mouldings, grained on bedroom side; flat panels unfinished on closet side.
WINDOWS:	Six-over-six double-hung wood windows; wood frame; one on east wall, one on south wall.
DOOR/WINDOW CASING:	4 1/4" wide wood (moulding set "B").
HARDWARE:	Door to bedroom: Carpenter latch; one pair 4" x 4" Clark hinges. Closet door: keyed lock; one pair 3" x 3" hinges.
MISCELLANEOUS:	Wood stairs down, guardrail, balusters.
ALTERATIONS:	Rugs removed. Ceiling light and switches, electrical outlets and unit heater installed. Interior storm sash installed on windows. Metal thimble at chimney. Original finishes covered with paint on wood base, chair rail, window frame, sash and casings, nursery side of door, and on plaster walls and ceiling. Floor boards removed for running electrical wiring, one not replaced.

NURSERY (CONT'D)

PLASTER CONDITION:	At west wall, diagonal crack at north end roughly patched, minor cracks from upper left of door, divot from door knob, roughly patched, switch and receptacle recessed in plaster. North wall in good condition. At east wall, cracks and loose plaster below window, water damage at top of chair rail at south, base separated at south, receptacle recessed in base. At south wall, water damage at lower east end of the wall, base loose, especially in water damaged areas at east end, crack above closet door 1 1/2' long with loose plaster surrounding crack, hole for stovepipe and cracks between hole and ceiling. At ceiling, hole for light fixture.
FINISHES CONDITION:	Walls light blue over white. Ceiling white over white. Mouldings white over orange brown. Nursery side of door painted white over cream. Closet door white over graining, back unpainted.

ATTIC LEVEL

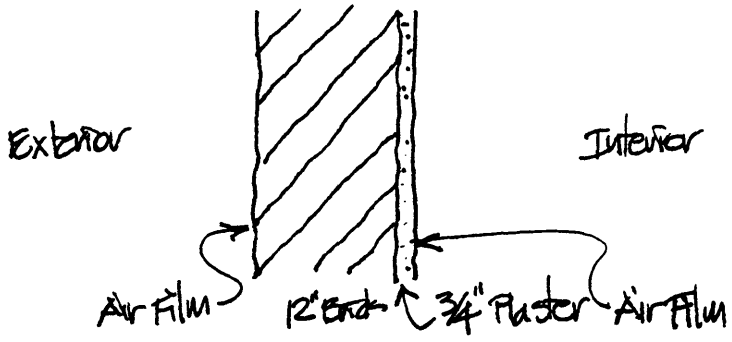
STORAGE

FLOOR:	Random width tongue-and-groove pine.
WALLS:	Exposed brick masonry at north; exposed wood framing and back of lath and plaster at stair hall.
CEILING:	Exposed oak roof rafters and wood lath.
DOORS:	One 1" beaded board door.
WINDOWS:	Six-over-six double-hung wood window with wood frame in north wall.
HARDWARE:	One pair hinges on door; outline of 3 1/2" x 4 1/2" box lock on door.
ALTERATIONS:	Wood shingle roof. Rigid insulation laid on floor. Some roof lath replaced. Some bracing of roof rafters.

APPENDIX D:
THERMAL CALCULATIONS

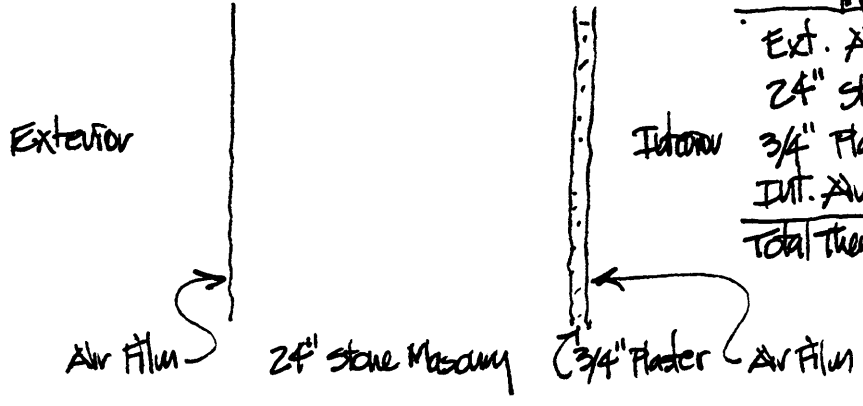
SHERRICK HOUSE
ANTIETAM N.B.S.
THERMAL CALCULATIONS

12" Brick Walls at 1st & 2nd Floors:



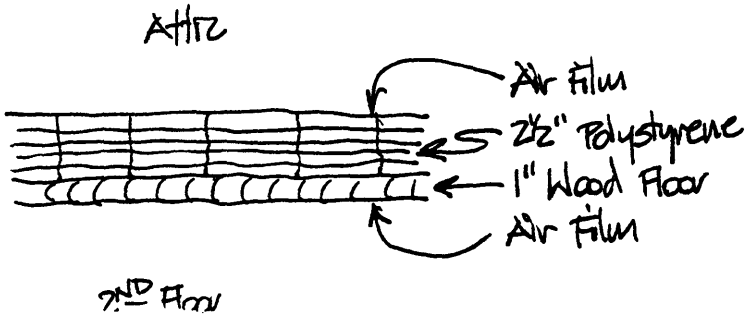
Material	"R" Value
Ext. Air Film	.17
12" Brick Masonry	2.4
3/4" Plaster	.15
Int. Air Film	.68
Total Thermal Resistance	3.4

24" Stone Walls at Basement:



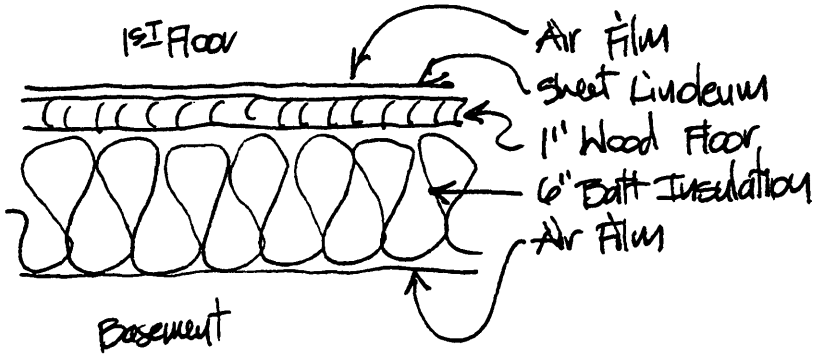
Material	"R" Value
Ext. Air Film	.17
24" Stone Masonry	1.92
3/4" Plaster	.15
Int. Air Film	.68
Total Thermal Resistance	2.92

Attic Floor



Material	"R" Value
Ext. Air Film	.61
2½" Polystyrene	8.9
1" Wood Floor	1.25
Int. Air Film	.61
Total thermal Resistance	11.37

1ST Floor



Material	"R" Value
Ext. Air Film	.61
sheet Linoleum	.05
1" Wood Floor	1.25
6" Batt Insulation	23.1
Int. Air Film	.61
Total thermal Resistance	25.62

APPENDIX E:
STRUCTURAL CALCULATIONS

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JOB SHERRICK FARM HOUSE.
SHEET NO. 1 OF
CALCULATED BY DATE
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1. THE DESIGN VALUES ARE DETERMINED BASED ON OAK & PINE SPECIES PER NDS – A SUPPLEMENT TO THE 1991 EDITION: DESIGN VALUES FOR WOOD CONSTRUCTION, PAGE 23, TABLE 4A. PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.

OAK

a: BENDING: F_b = 1200 PSI

b: SHEAR: F_v = 110 PSI

c: COMP. PARALLEL TO GRAIN: F_c = 1100 PSI

d: MOD. OF ELASTICITY: E = 1100 KSI

DESIGNED VALUES ASSUMED ABOVE ARE SIMILAR TO WHITE OAK.

2. LOADING CRITERIA: [SINGLE FAMILY RESIDENCE]

a. FLOOR LIVE LOAD: 40 PSF & 30 PSF (BED-ROOM)

b. ROOF LIVE LOAD: 30 PSF (GROUND SNOW)

c. ATTIC LIVE LOAD: 20 PSF

d. DEAD LOAD: VARIES, SEE ATTACHED CALCULATIONS.

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SHERRICK FARMHOUSE.

JOB

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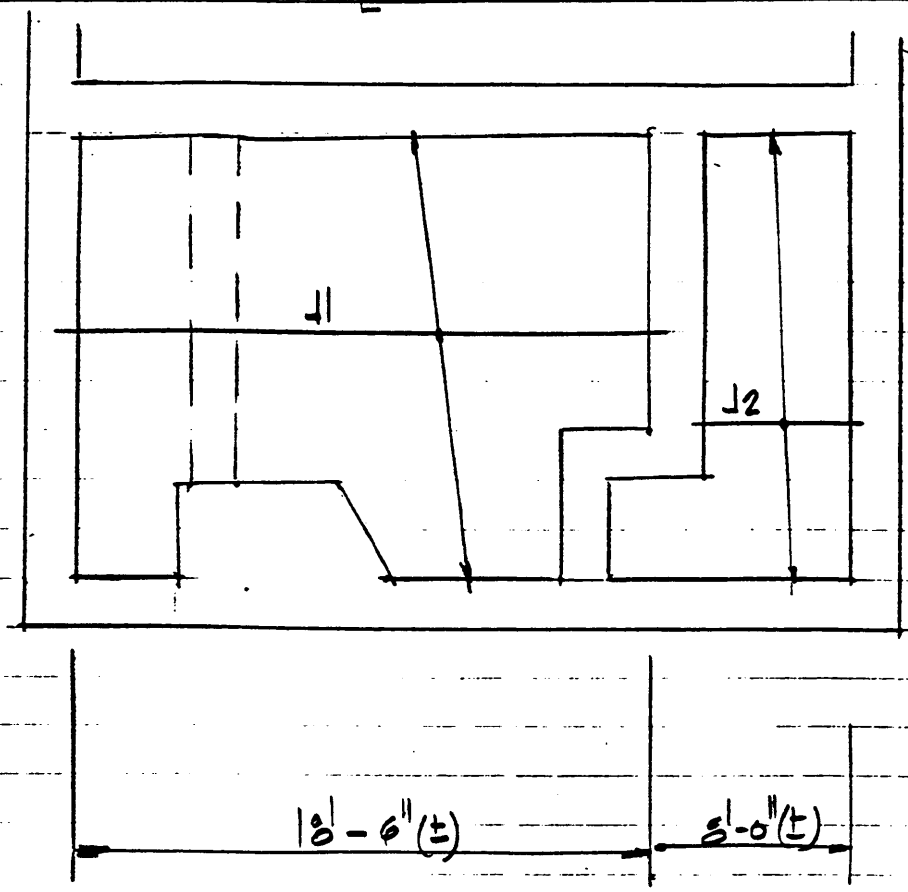
CHECKED BY DATE

BASEMENT FLOOR ANALYSIS [FRAMED FLOORS PANTRY & KITCHEN AREA]



PART PLAN

DEAD LOAD:

3"+7/4" @ 24" O.C	:	10 PSF	(J1 & J2)
3/4" PLANKS + CARDBOARD LINING	:	3 PSF	
MISC	:	2 PSF	
		TOTAL: 15 PSF	

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LIVE LOAD CAPACITY OF J1 [3" x 7¼" c, 24" o.c]

BENDING:

$$\frac{1200 \times 1.15 \times 26.3}{12} = \frac{\overbrace{(W_L + 15) \times 2}^{W_T} \times 18.5^2}{8}$$

$W_L = 35$ PSF.

DEFLECTION:

$$12 \times \frac{18.5}{360} = \frac{22.5 \times \left[\frac{(W_T - 15) \times 2}{1000}\right] \times 18.5^4}{95.2 \times 1100}$$

$$0.62 = 0.05(W_T - 15)$$

$$W_T = \frac{0.62}{0.05} + 15 = 27 \text{ PSF.} \qquad W_L = 12 \text{ PSF.}$$

SECTION MOD: $\frac{3 \times 7.25^2}{6}$

: 26.3 in^3.

MOM. OF INERTIA: $\frac{3 \times 7.25^3}{12}$

: 95.2 in^4

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JOB SHERLOCK EXEMHOUSE.
SHEET NO. 4 OF
CALCULATED BY DATE
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LIVE LOAD CAPACITY OF 12 [3x7 1/4 @ 24" O.C]

SECTION MOD: 26.3 in^3
MOMENT OF INERTIA: 95.2 in^4

BENDING:

$$\frac{1200 \times 1.15 \times 26.3}{12} = \frac{(W_L \times 15) \times 2 \times 8^2}{8}$$

$$W_L = 174.00 \text{ PSF}.$$

DEFLECTION:

$$\frac{12 \times 8}{360} = \frac{22.5 \times \left[\frac{(W_T - 15) \times 2}{1000}\right] \times 8^4}{95.2 \times 1100}$$

$$0.26 = 0.0017 [W_T - 15]$$

$$W_T = 163 \text{ PSF}.$$

SHEAR:

$$90 = \frac{1.5 \times \left[W \times 2 \times \frac{8}{2}\right]}{3 \times 7.25}$$

$$W = 163.0 \text{ PSF}.$$

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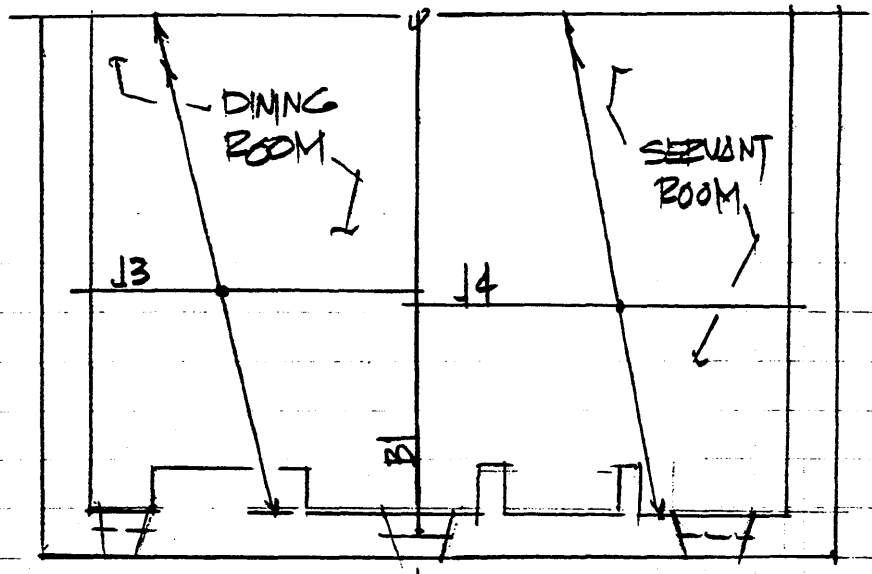
JOB SH :ECK FARMHOUSE.
SHEET NO. 5 OF
CALCULATED BY DATE
CHECKED BY DATE

FIRST FLOOR ANALYSIS DINING ROOM AND SERVANT'S ROOM.



PART PLAN

DEAD LOAD:

2x8/2 @ 19" O.C	12 PSF	[J3 & J4]
1½" FLOOR DECKING	6 PSF	
MISL:	2 PSF	
	20 PSF.	

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JOB SHEE :K FARMHOUSE
SHEET NO. 6 OF
CALCULATED BY DATE
CHECKED BY DATE

LNE LOAD CAPACITY OF J3 & J4 [2x8 @ 12" o.c]

BENDING:

$$\frac{200 \times 1.15 \times 24}{12} = \frac{(W_L + 20)\times\frac{19}{12} \times 14^2}{8}$$

$W_L = 71$ PSF.

SECTION MOD. $= \frac{2 \times 8.5^2}{6} = 24\ in^3$

MOM. OF INERTIA: $\frac{2 \times 8.5^3}{12} = 102\ in^4$

DEFLECTION:

$$\frac{\frac{14}{360}}{} = \frac{22.5\left(\frac{W_T - 20}{1000}\right)\frac{19}{12} \times 14^4}{102 \times 100}$$

$W_T = 58$ PSF $\quad W_L = 38$ PSF. * (GOVERNS)

SHEAR:

$$110 = \frac{1.5 \times (W_L + 20)\times\frac{14}{2} \times \frac{19}{12}}{2 \times 8.5}$$

$W_L = 92$ PSF.

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JOB SUE ZICK FARMHOUSE
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LIVE LOAD CAPACITY OF BM.1 (8" x 8")

SECTION MOD. $= \frac{8^3}{6} = 85.0\ in.^3$

MOMENT OF INERTIA $= \frac{8 \times 8^3}{12} = 341\ in.^4$

BENDING:

$$\frac{200 \times 1.15 \times 85}{12} = \frac{(W_L + 20) \times 7 \times 17^2}{8}$$

$W_L = 18.7$ PSF

DEFLECTION:

$$\frac{12 \times 7}{360} = \frac{22.5 \times \left(\frac{W_T - 20}{1000}\right) \times 17^4 \times 7}{1100 \times 341}$$

$W_T = 36$ PSF $\quad W_L = 16$ PSF. * GOVERNS.

SHEAR:

$$110 = \frac{1.5 \times (W_L + 20) \times 7 \times \frac{17}{2}}{8 \times 8}$$

$W_L = 58.3$ PSF.

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JOB SHIRLEY FARMHOUSE.
SHEET NO. 8 OF
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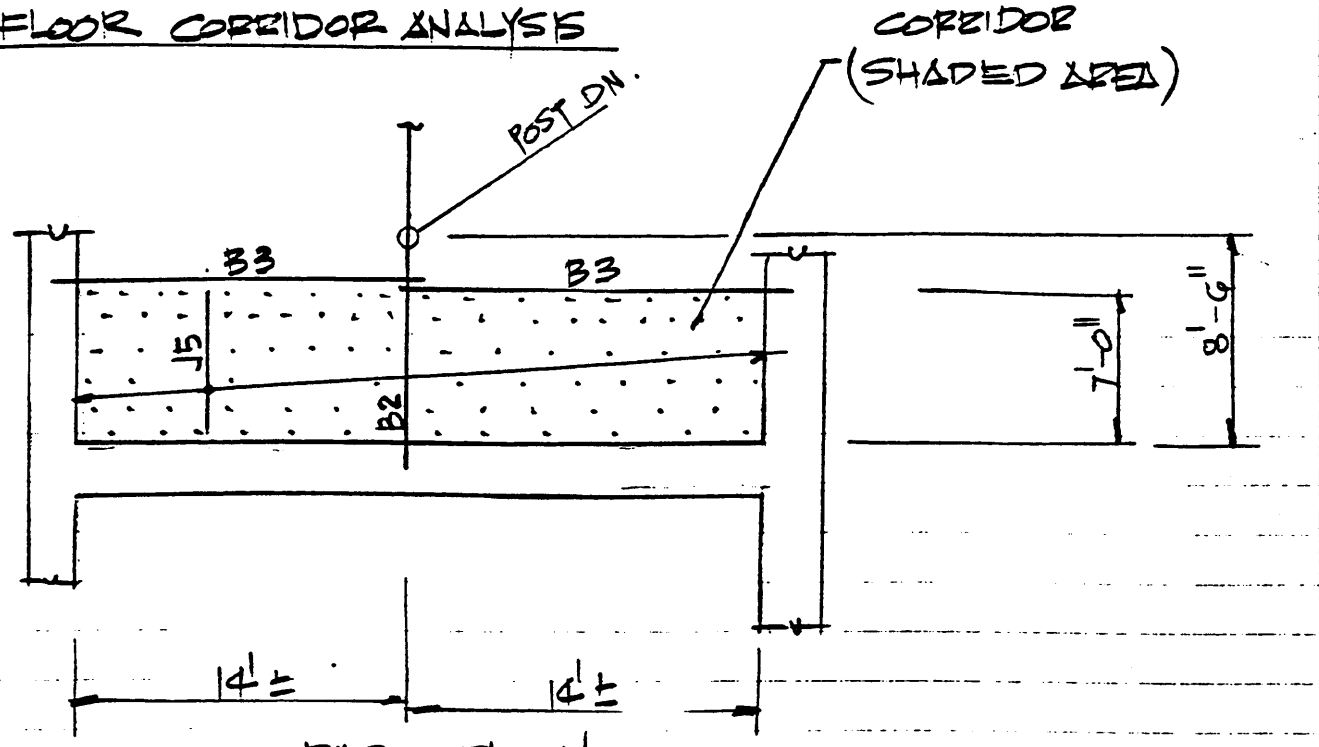
FIRST FLOOR CORRIDOR ANALYSIS



PART PLAN
N.T.S

DEAD LOAD:

2" x 8 1/2" @ 24" O.C	10 PSF (J5)
1 1/2" FLOOR DECKING	6 PSF
MISL:	2 PSF
	18 PSF

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JOB SHEEPCK FARMHOUSE
SHEET NO. 9 OF
CALCULATED BY DATE
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LIVE LOAD CAPACITY OF I5 (2" x 8 1/2" @ 24" o.c)

SECTION MOD = 24 in^3
MOM. INERTIA = 102 in^4

BENDING:

$$\frac{1200 \times 115 \times 24}{12} = \frac{(W_L + 18) \times 2 \times 7^2}{8}$$

$$2760 = (W_L + 18)\, 12.25$$

$$W_L = 206 \text{ PSF.}$$

DEFLECTION:

$$\frac{7 \times 12}{360} = \frac{22.5 \left(\frac{W_T - 18}{1000}\right) \times 2 \times 7^4}{102 \times 1106}$$

$W_T = 260$ PSF. $W_L = 242$ PSF.

SHEAR:

$$110 = \frac{1.5 \times [W_L + 18] \times 2 \times 7/2}{2 \times 8.5}$$

$W_L = 160$ PSF.

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JOB SHERWICK FARMHOUSE.
SHEET NO. 10 OF
CALCULATED BY DATE
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LIVE LOAD CAPACITY OF B3. [8 3/4" x 8 3/4"]

BENDING:

$$\frac{1200 \times 111.65}{12} = \frac{2(W_L + 18) \times 3.5 \times 14^2}{8}$$

(2 = TWO FLOORS.)

$W_L = 47$ PSF.

MOD OF SECTION: $\frac{8.75 \times 8.75^2}{6} = 111.65\ in^3$.

MOM. OF INERTIA: $\frac{8.75 \times 8.75^3}{12} = 488\ in^4$.

DEFLECTION:

$$\frac{14 \times 12}{360} = \frac{22.5 \times \left(\frac{W_T - 18}{1000}\right) \times 3.5 \times 14^4 \times 2}{488 \times 1150}$$

(2 = TWO FLOORS)

$W_T = 59.4$ $W_L = 42$ PSF. * GOVERNS.

SHEAR:

$$110 = \frac{\frac{3}{2} \times 3.5 \times (W_L + 18) \times \frac{14}{2} \times 2}{8.75 \times 8.75}$$

W_L: 96 PSF.

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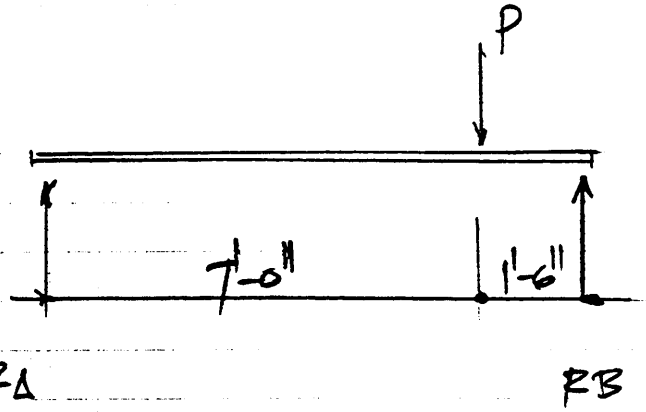
LIVE LOAD CAPACITY OF B2.



SECTION MOD: $\frac{10.25 \times 10.75^2}{6}$

$= 197.4\ in^3.$

MOM. OF INERTIA: $\frac{10.25 \times 10.75^3}{12}$

$= 920\ in^4$

SHEAR GOVERNS:

$f_v = \frac{3}{2} \times \frac{16632}{10.25 \times 10.75}$

$f_v = 226.42.$

$\frac{226.42}{110} \times 100 = 200\%$

[OVERSTRESSED]

* IF ASSUMED FRAMING IS CORRECT.

1ST FL.

$P = 3.5(40+8) \times 14 = 2842$

ATTIC → 5880
2ND FL. → 7910
16632

REFER TO CAL. SHEET NO: 20

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JOB SHERWICK FARMHOUSE.
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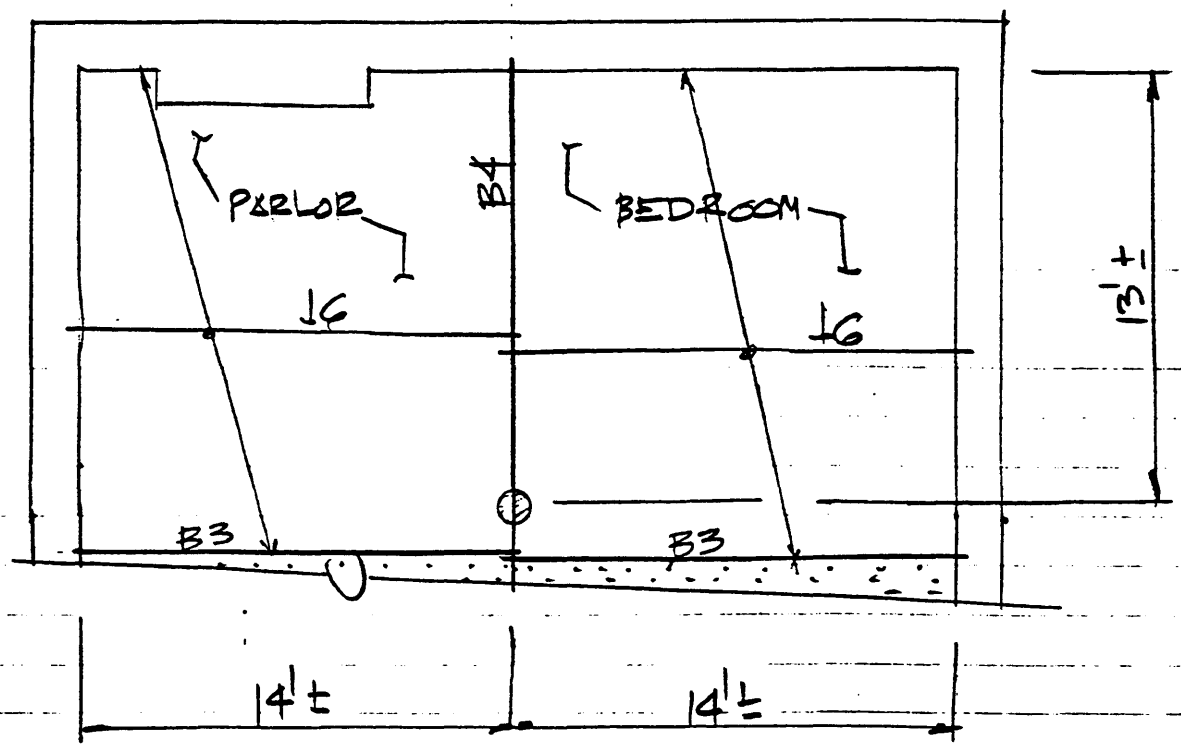
FIRST FLOOR ANALYSIS [AT PARLOR & BEDROOM]



PART PLAN
N.T.S

DEAD LOAD:

2"+8½" @ 22" o.c	10 PSF (J6)
½" FLOOR DECKING	6 PSF
MISC.	2 PSF
	18 PSF.

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JOB SHELOCK FARMHOUSE.
SHEET NO. 3 OF
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CHECKED BY DATE

LIVE LOAD CAPACITY OF I JOIST. (2"x8½" @ 22" o.c)

BENDING:

$$\frac{\frac{100 \times 1.15 \times 24}{12} = \frac{(W_L + 18) \times \frac{22}{12} \times 14^2}{8}}{}$$

$W_L = 43$ PSF.

SECTION MOD.: $\frac{2 \times 8.5^2}{6} = 24 \text{ in}^3$.

MOM. OF INERTIA: $\frac{2 \times 8.5^3}{12} = 102 \text{ in}^4$

DEFLECTION:

$$\frac{12 \times 14}{360} = \frac{22.5\left(\frac{WT - 18}{1000}\right) \times \frac{22}{12} \times 14^4}{102 \times 1100}$$

$WT = 51$ PSF $\quad W_L = 33$ PSF. [* GOVERNS]

SHEAR:

$$110 = \frac{1.5\left(W_L + 18\right) \times \frac{22}{12} \times \frac{14}{2}}{2 \times 8.5}$$

$W_L = 79$ PSF.

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JOB SHERICK FARMHOUSE
SHEET NO. 14 OF
CALCULATED BY DATE
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LIVE LOAD CAPACITY OF B4 [$10\frac{1}{4}" \times 16\frac{3}{4}"$]

SECTION MOD: $197.4\ in^3$

MOM. OF INERTIA: $920\ in^4$

BENDING:

$$\frac{1200 \times 197}{12} = \frac{(W_L + 18) \times 14 \times 13^2}{8}$$

$W_L = 49$ PSF.

DEFLECTION:

$$\frac{12 \times 14}{360} = \frac{22.5\left(\frac{W_T - 18}{1000}\right) \times 14 \times 13^4}{1100 \times 920}$$

$W_T = 70$ PSF $\quad W_L = 52$ PSF.

SHEAR:

$$116 = \frac{\frac{3}{2} \times (W_L + 18) \times 14 \times 7}{10.25 \times 10.75}$$

$W_L = 64$ PSF.

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JOB SHE ZICK FARMHOUSE.
SHEET NO. 5 OF
CALCULATED BY DATE
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ROOF ANALYSIS

DEAD LOADS:

PER ASCE 7-93 STD. (ADDITIONAL BASED ON SITE VISIT)

WOOD SHINGLES:	(3 PSF + 2 PSF) :	5 PSF
WOOD LATH :		2 PSF
2" WIDE (ACTUAL) TAPPERED RAFTERS :		6 PSF (ASCE 7-93 STD.)
MISL: (EG: COLLAR TIES, E.T.C)		2 PSF
		15 PSF (TOTAL)

REF: ASCE 7-93 STD: AMERICAN SOCIETY OF CIVIL ENGINEERS: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.

SNOW LOAD CALCULATION

$$P_f = C_e I P_g$$

$C_e = 0.7$ TABLE 1610.4.
$I = 1.0$ TABLE 1611.5.
$P_g = 30$ P.S.F FIGURE 1606.3(1)
- BOCA.

$$P_f = 0.7 \times 1 \times 30 = 21 \text{ PSF.}$$

SLOPED ROOF REDUCTION (1610.5 BOCA)

$$C_S = 1 - \frac{(36 - 30)}{40} = 0.85$$

$$P_S = 0.85 \times 21 = 17.8 \text{ PSF}$$

SAY: 20 PSF.

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JOB SH' BRICK FARMHOUSE
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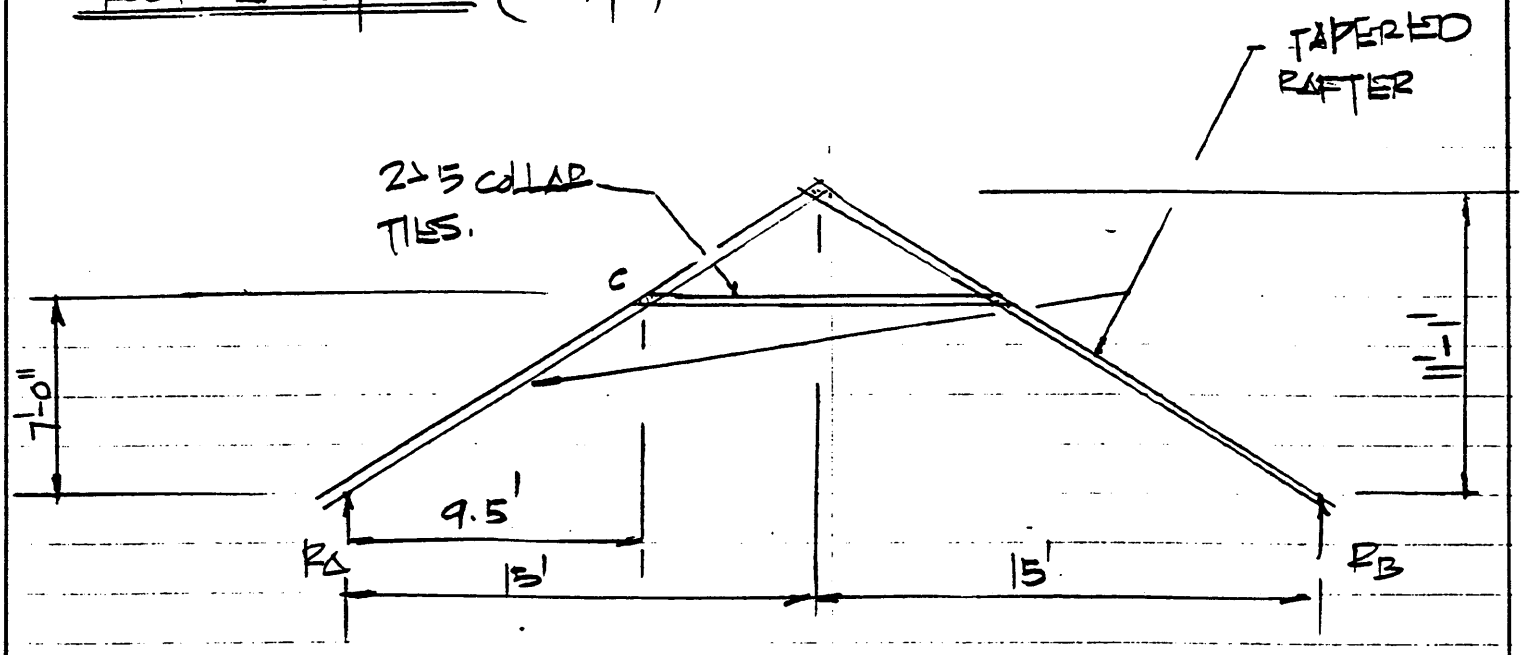
ROOF ANALYSIS. (CONT.)



$R_A = R_B = 3x(W_L + 15) \times 15$
$= 45(W_L + 15)$

$\frac{x}{7} = \frac{15}{11.08}$

$x = 9.5$ FT.

$M_{@C} = R_A \times 9.5 - \left[(W_L + 15)3 \times 9.5 + \frac{9.5}{2}\right]$

$= R_A \times 9.5 - [W_L + 15]\,135.4$

$= 9.5 \times 45(W_L + 15) - 135.4\,[W_L + 15]$

$= 292.1\,[W_L + 15]$

$397 = 292.1\,[W_L + 15]$

$W_L = -13.6$ PSF. [VERY LOW *]

[NO LIVE LOAD CAPACITY]

MOM. CAPACITY OF MEMBER:

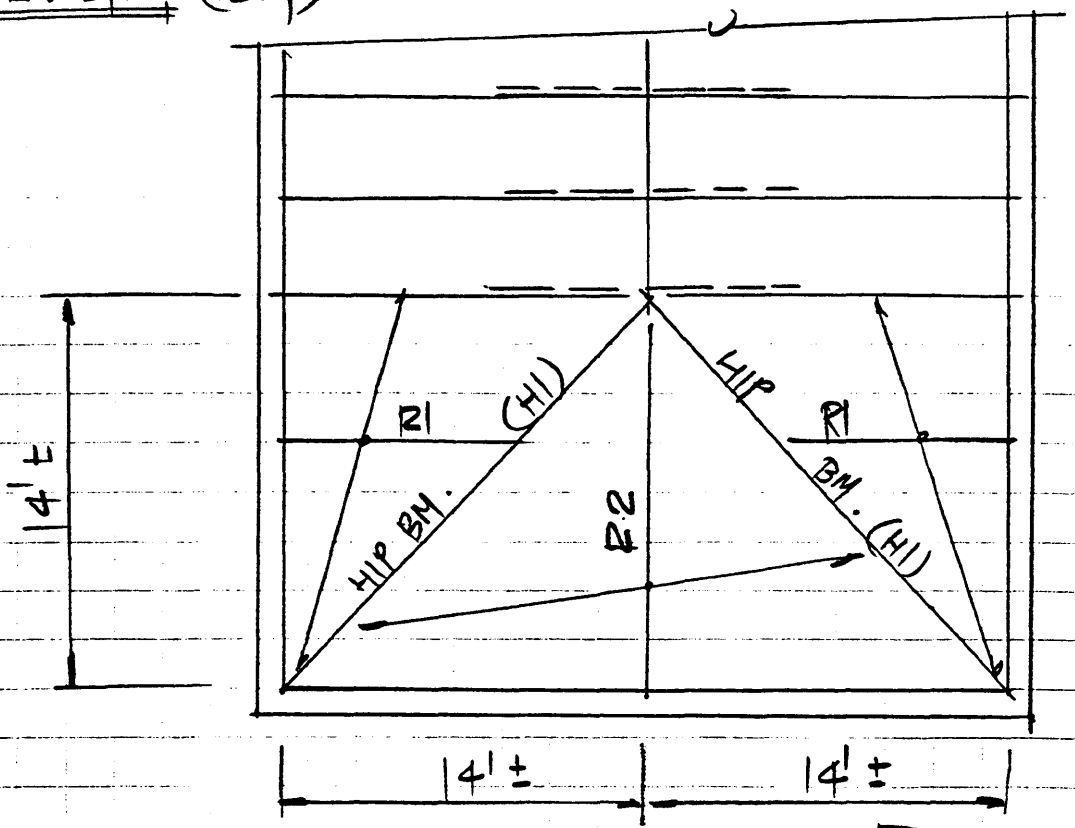
$: F_{DOG} \times \frac{2 \times 3^2}{6} \times 1.15 \times \frac{1}{12}$ KIPS

: 397 lbs FT.

McMulla. & Associates
Consulting Structural Engineers
8245 Boone Boulevard, Suite 290
Vienna, Virginia 22182-3828
Phone: (703) 556-0651

JOB SHE RICK FARMHOUSE.
SHEET NO. 17 OF
CALCULATED BY DATE
CHECKED BY DATE

ROOF ANALYSIS (CONT.)



ROOF PART PLAN [HIPPED END]

LIVE LOAD CAPACITY, R1 (WORST CASE)

$$\frac{1200 \times 1.15 \times 1.15 \times 3.75}{12} = \frac{3 \times (W_L + 15) \times 14^2}{8}$$

$W_L = -8.25$ psf. [VERY LOW *]

[NO LIVE LOAD CAPACITY]

$$S_x = \frac{2.5 \times 3^2}{6} = 3.75 \text{ in}^3$$

$$I_{xx} = \frac{2.5 \times 3^3}{12} = 5.62 \text{ in}^4$$

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* LIVE LOAD CAPACITY OF R2 SIMILAR TO R1.

LIVE LOAD CAPACITY OF HIP BM (H1) (3" W x 2¼" DEEP)

SPAN = 19.80 FT.

$$\frac{1200 \times 2.53}{12} = W \times 19.80 (0.1283) \quad (I)$$

$$W = \frac{14(W_L + 15) \times 19.80}{2} \quad (II)$$

$$= 138.6(W_L + 15)$$

$$253 = 352(W_L + 15)$$

$W_L = -14.3$ PSF [VERY LOW *]

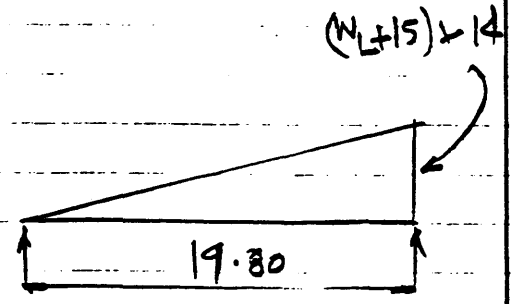
(NO LIVE LOAD CAPACITY)

$$S_{\perp} = \frac{3 \times 2.25^2}{6}$$

$$= 2.53 \text{ in}^3.$$

$$I_{\perp} = \frac{3 \times 2.25^3}{12}$$

$$= 2.85 \text{ in}^3.$$



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JOB SH BRICK FARMHOUSE
SHEET NO. 19 OF
CALCULATED BY DATE
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CAPACITY OF 6½" POST [LOCATION: BASEMENT STORAGE]

(HEIGHT 6 FT ±)

CAPACITY: [USING NDS 3.7, SOLID COLUMNS]

ROUND: 6½" ϕ AREA $= \pi\left(\frac{6.5}{2}\right)^2 = 33.18 \text{ in}^2$

ROUND ⇒ EQUIVALENT SQUARE COLUMN $= \sqrt{33.18} = 5.76''$ SQ.

$l_e = k_e(l) = 1 \times 6 \times 12 = 72$ in.

$\frac{l_e}{d} = \frac{72}{5.76} = 12.5 < 50$ [O.K] ✓

THE COLUMN STABILITY FACTOR:

$$c_p = \frac{1 + [F_{cE}/1100]}{2 \times 0.8} - \sqrt{\left[\frac{1 + F_{cE}/1100}{2 \times 0.8}\right]^2 - \frac{F_{cE}/1100}{0.8}}$$

$c_p = 1.83 - \sqrt{3.33 - 2.4}$

$c_p = 0.86$

COLUMN CAPACITY $= 0.86 \times 1100 \times 33.18$

$= 31$ KIPS.

$F_{cE} = \frac{0.3 \times 1100000}{(12.5)^2}$

$= 212$

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JOB SHIRLEY FARM HOUSE.
SHEET NO. 20 OF
CALCULATED BY DATE
CHECKED BY DATE

LOAD ACTING ON THIS $6\frac{1}{2}$" COLUMN IF USED FOR RESIDENTIAL REQ'D.

L.L. D.L T.L

$(20+20)\times 14\times \frac{13}{2} + 40\times 4\times 14 = 5880$ lbs (ATTIC)

L.L D.L T.L

$(30+20)\times 14\times \frac{13}{2} + (40+20)\times 4\times 14 = 7910$ lbs (2ND FL)

7910 lbs (1ST FL)

21700 lbs.

21.7 kips < 31 kips [O.K]

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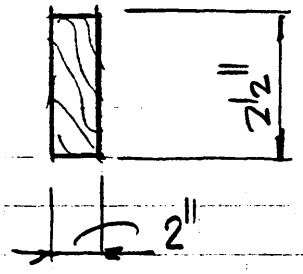
JOB SHI BRICK FARMHOUSE.
SHEET NO. 21 OF
CALCULATED BY DATE
CHECKED BY DATE

SHEAR CAPACITY OF TENON AT JOIST TO BM CONNECTION

[DETAIL 1/SK7]



$F_V = 110$ PSI

$$f_V = \frac{3}{2} \times \frac{\left(\frac{22}{12}\right)(40+20)\times 7}{2 \times 2.5} = 231 \text{ PSI}$$

OVER STRESSED BY $\frac{231}{110} \times 100 = 210\%$

* TENONS @ FLOOR JOISTS ARE OVER STRESSED.

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JOB SHERRICK FARM HOUSE
SHEET NO. 22 OF
CALCULATED BY DATE
CHECKED BY DATE

PRELIMINARY
CALCULATION TO VERIFY AS HOW MANY VISITORS CAN BE ALLOWED AT ONE TIME. IN TO THE FARMHOUSE:

1: ASSUMING THAT THE FARMHOUSE IS TO BE RENOVATED TO MEET THE PRESENT RESIDENTIAL CODE REQUIREMENT:

THEN:

AT THE SMALLEST ROOM (8' x 8'-2") AT 2ND FLOOR THE CAPACITY WOULD BE:

$$\frac{8 \times 8.16 \times 40}{160} = 16 \quad \text{SAY: 20 PERSONS}$$

(L. LOAD; AVERAGE WT. OF A PERSON)

2: ASSUMING THAT THE FLOORS ARE NOT TO BE STRENGTHENED:

LET'S CHECK FIRST FLOOR DINNING ROOM ARE:

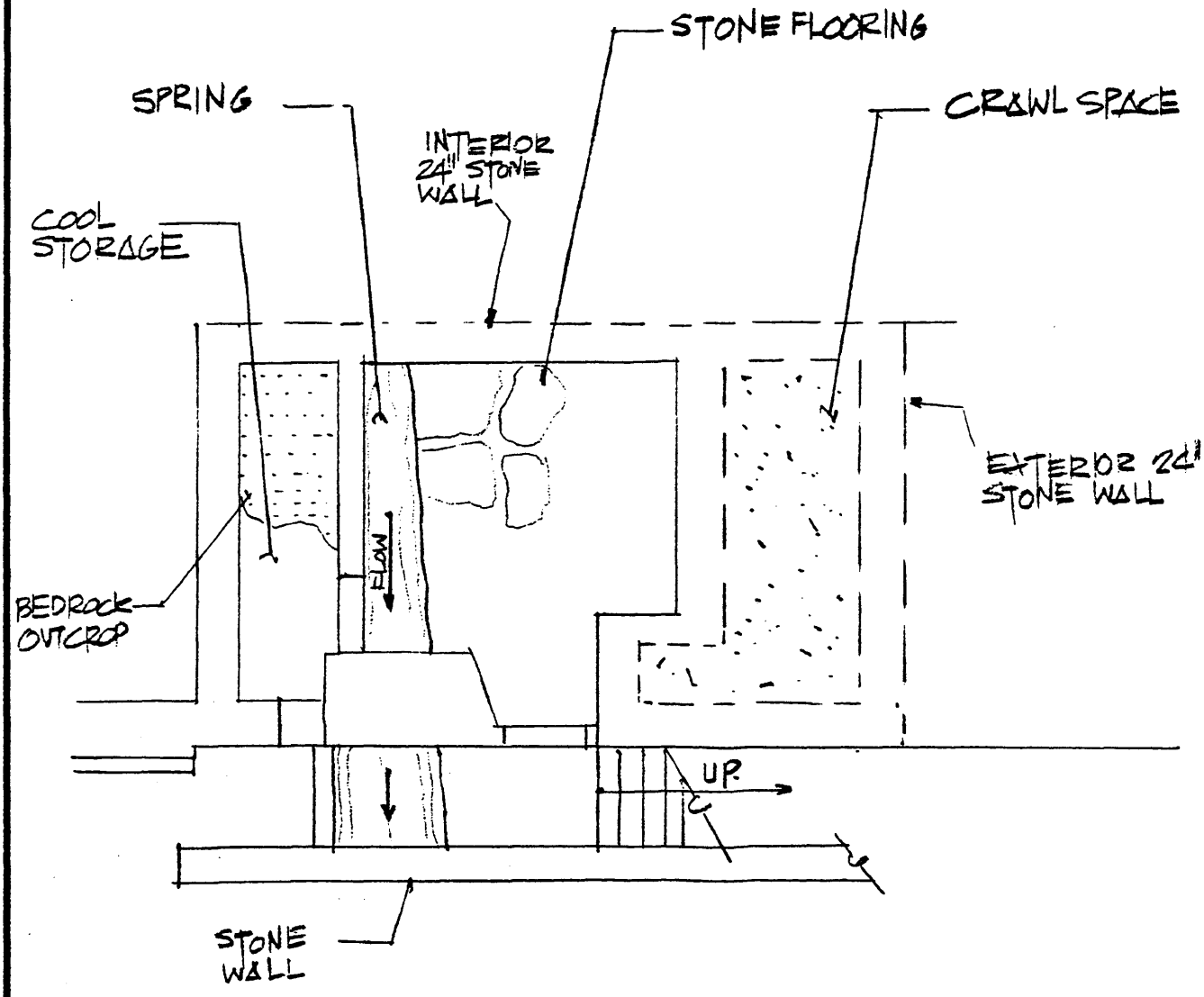
CALCULATED BM. CAPACITY: 16 PSF GOVERNS (CALS. SHEET #7)
(81)

AREA.

$$\frac{(15.75 \times 16.5) \times 16}{160} = 25 \quad \text{SAY: 20 PERSONS}$$

*. ALLOWED AT THIS AREA ONLY. (WITHOUT RENOVATION.)

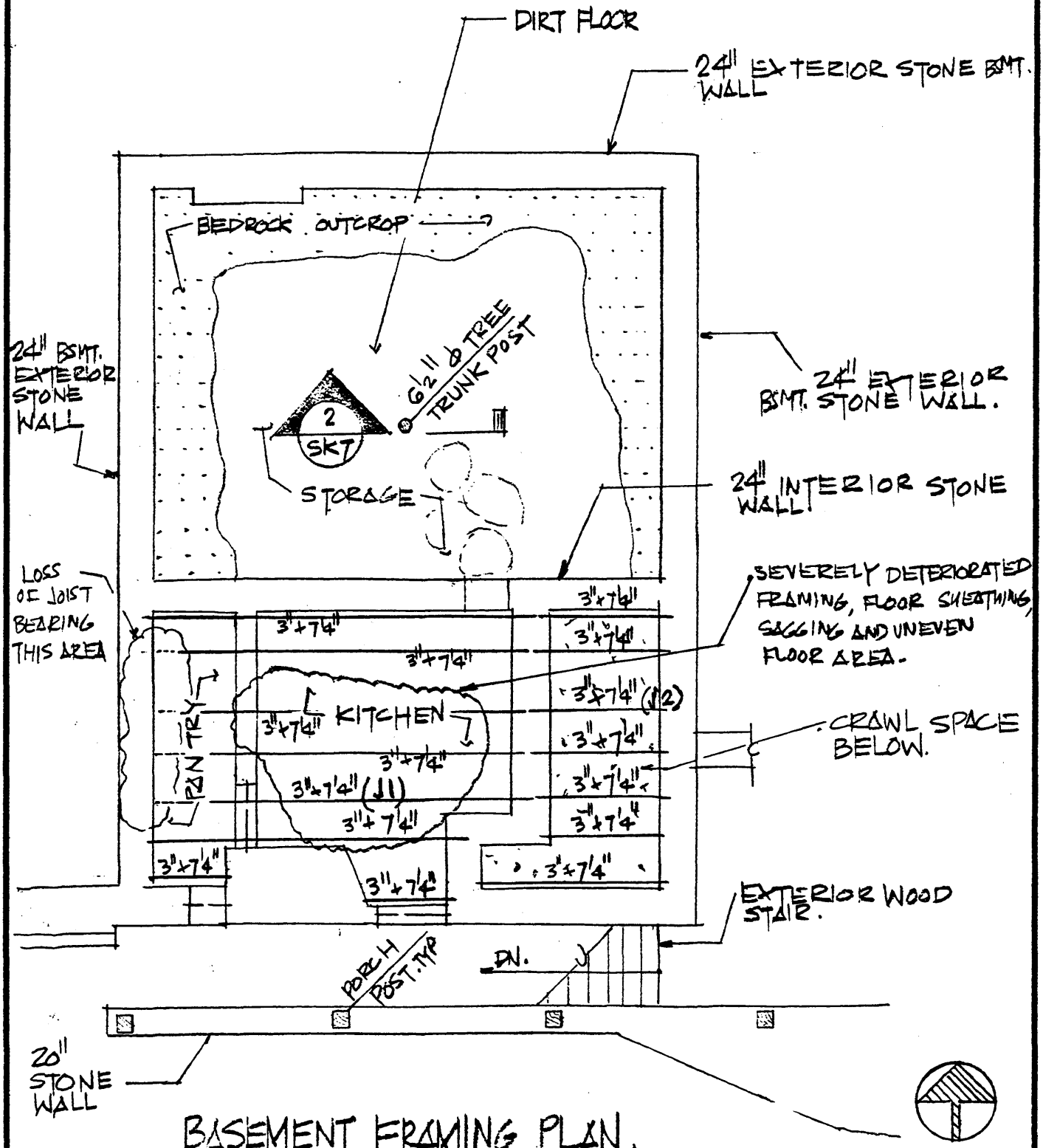
APPENDIX F:
STRUCTURAL DRAWINGS



SUB-BASEMENT PLAN
(SPRING ROOM)

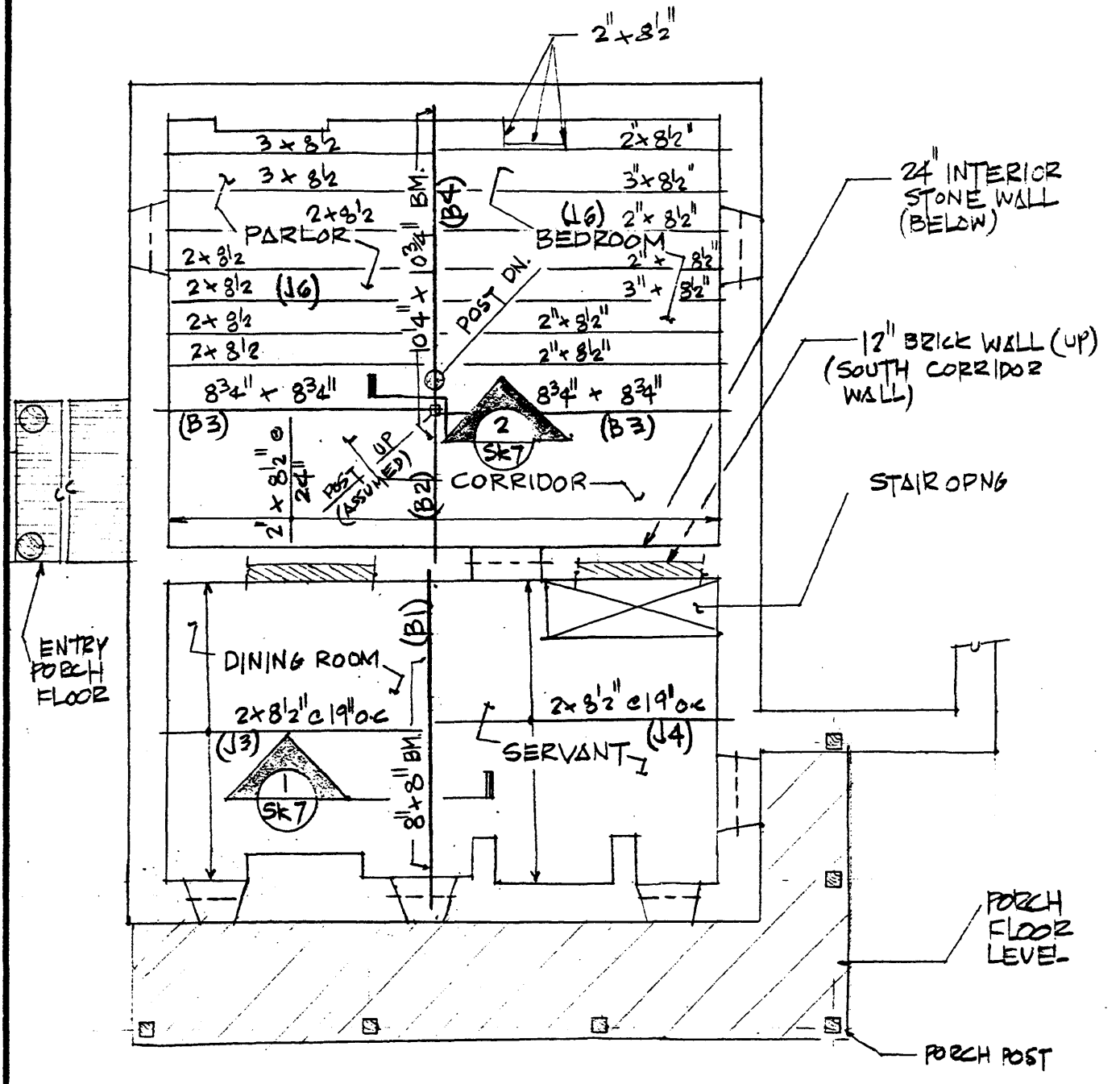
NORTH

PROJECT: SHERRICK FARMHOUSE	DATE:	DRAWING NO.
ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND	PROJECT NO. #1230 SCALE 3/8": 1'-0"	SK1 309



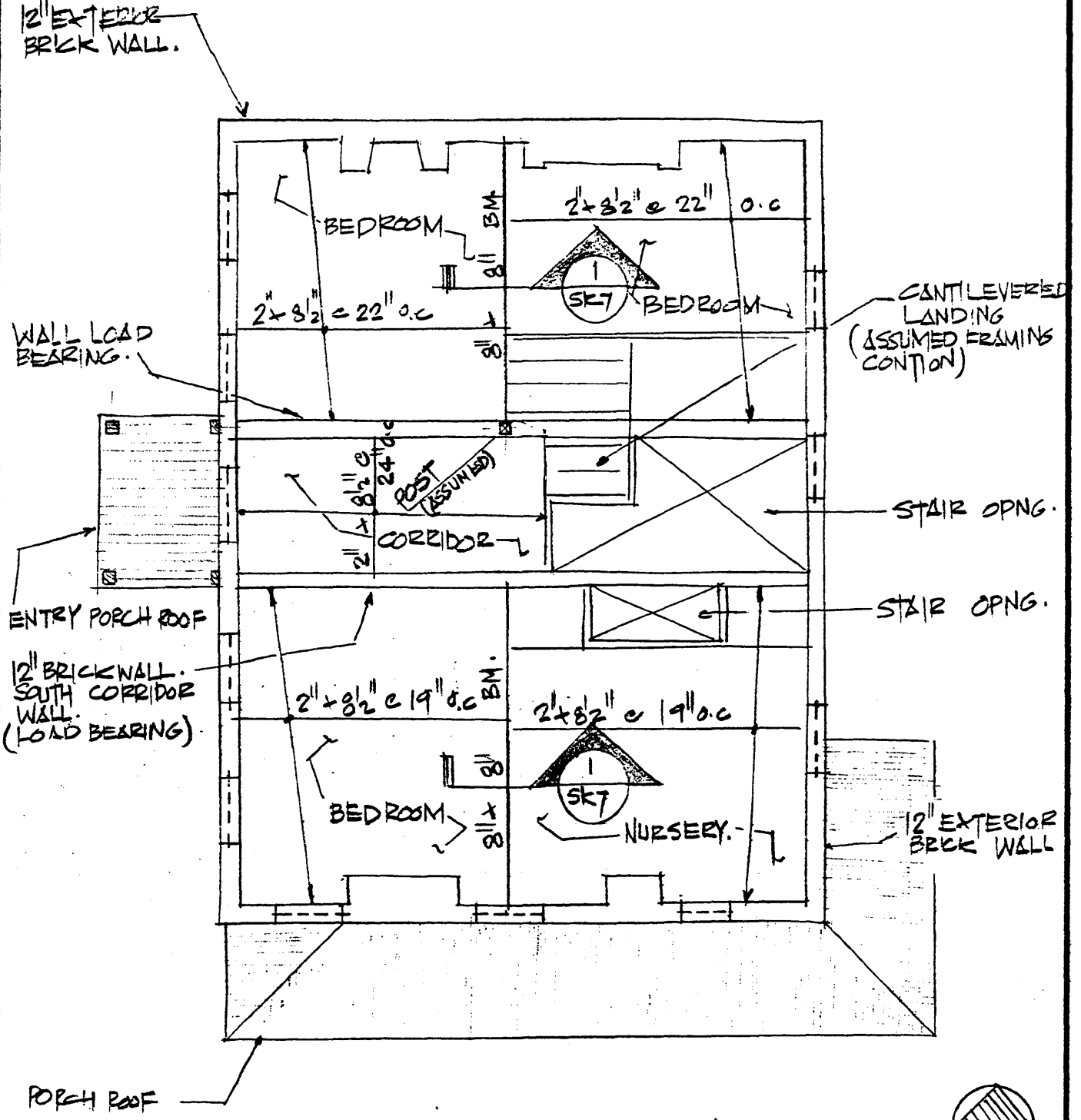
BASEMENT FRAMING PLAN.

PROJECT: SHERRICK FARMHOUSE	DATE:	DRAWING NO.
ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND	PROJECT NO. #1230 SCALE ¼" = 1'-0"	SK2 311



FIRST FLOOR FRAMING PLAN

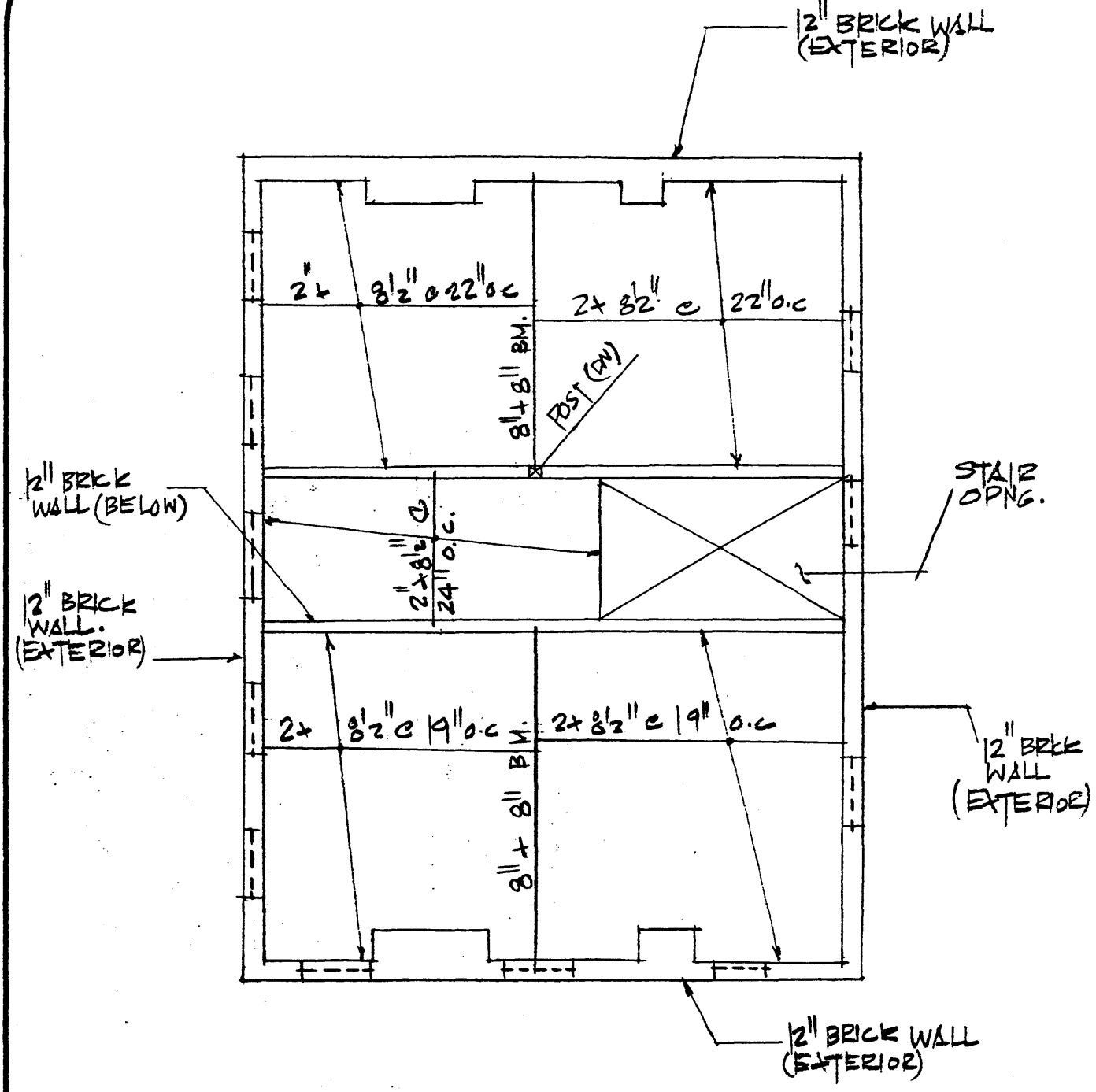
PROJECT: SHERRICK FARMHOUSE ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND	DATE	DRAWING NO.
	PROJECT NO. #1230	SK3
	SCALE 1/8" = 1'-0"	313



SECOND FLOOR FRAMING

NOTE:
2ND FLOOR FRAMING IS NOT ACCESSIBLE FOR SURVEY. FRAMING SHOWN ON THIS SHEET IS A ASSUMPTION BASED TO MATCH 1ST FLOOR FRAMING.

PROJECT: SHERRICK FARMHOUSE	DATE:	DRAWING NO.
ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND	PROJECT NO. # 1230	SK4
	SCALE 3/8" : 1'-0"	315



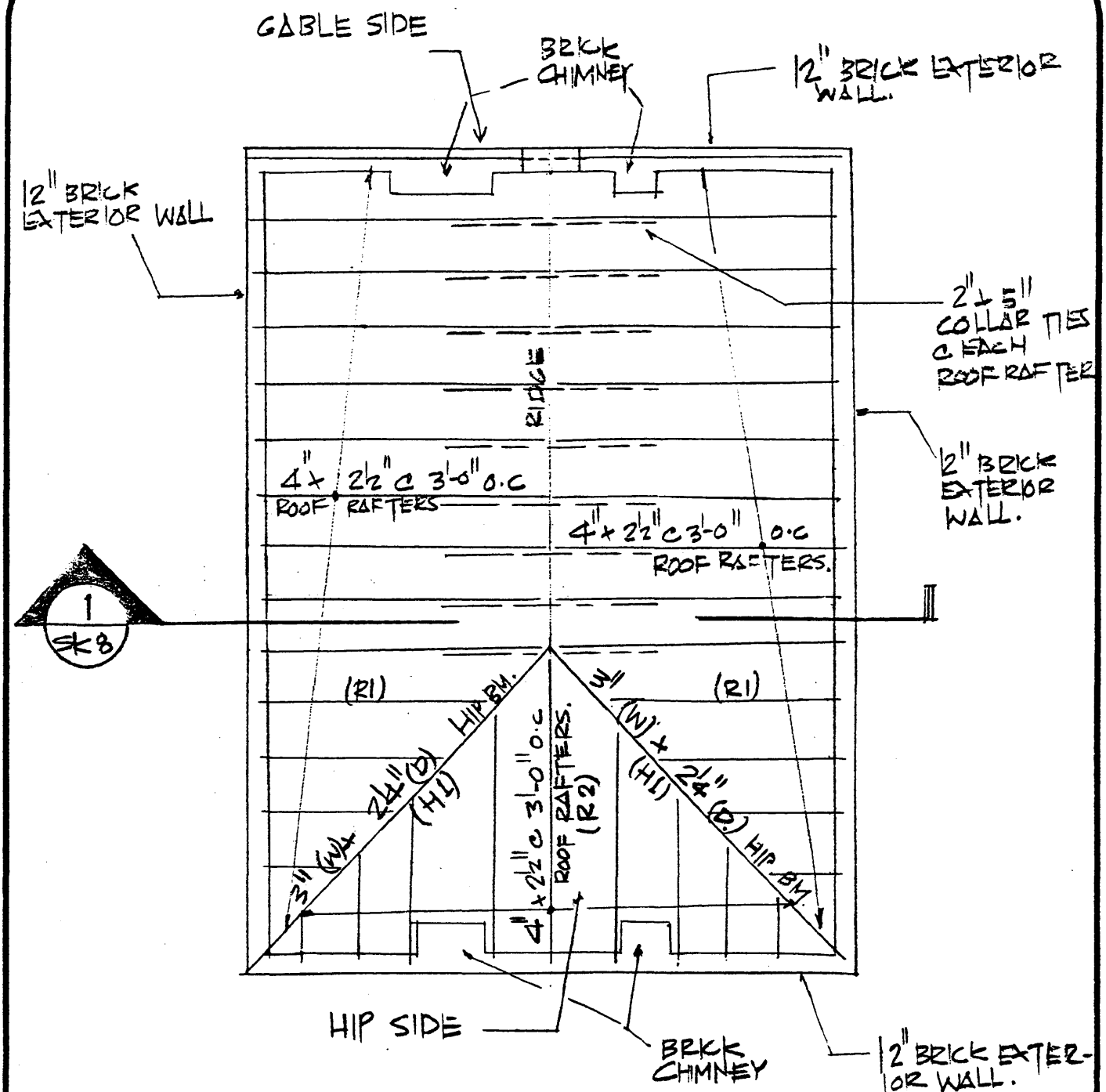
ATTIC FRAMING PLAN

NOTE:

ATTIC FLOOR FRAMING IS NOT ACCESSIBLE FOR SURVEY. FRAMING SHOWN ON THIS SHEET IS BASED (ASSUMED) ON TYPICAL FRAMING CONDITIONS.

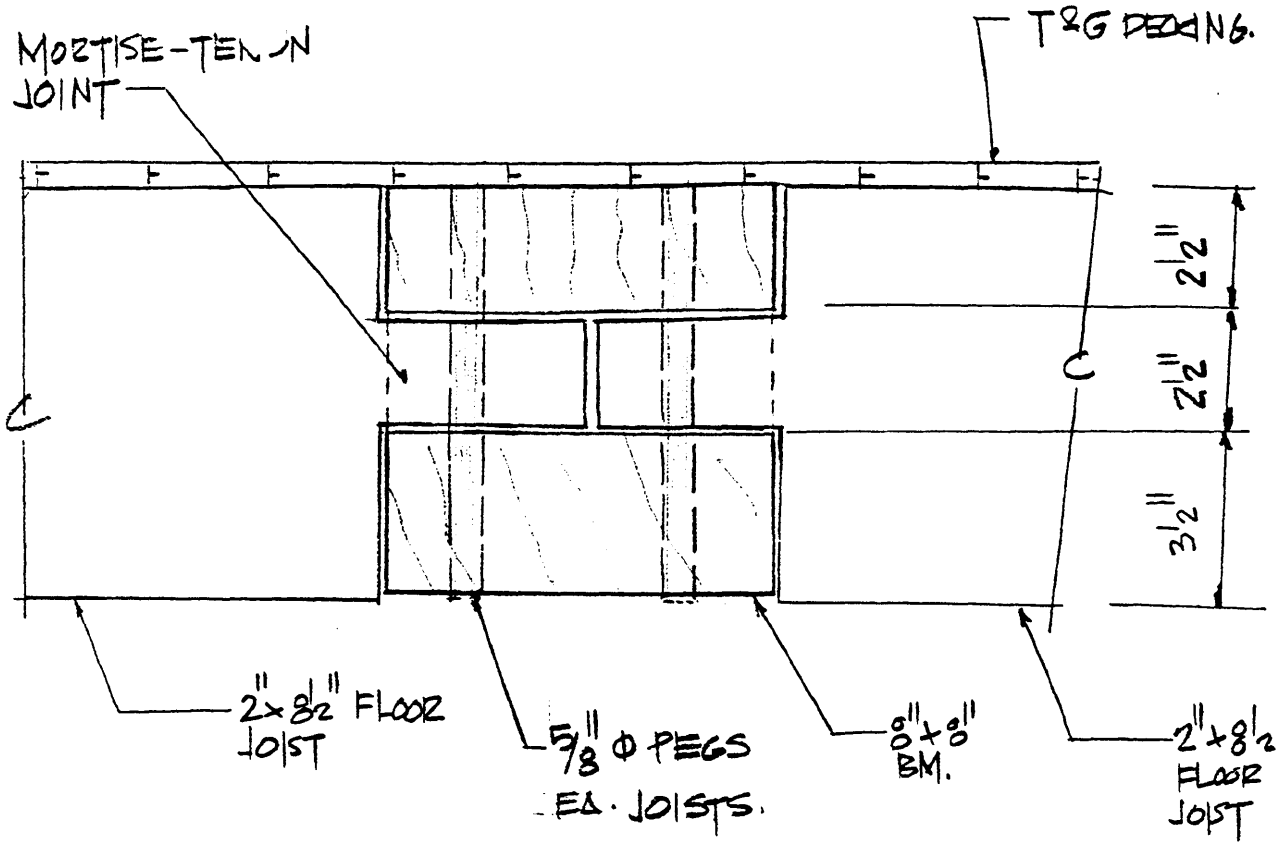
NORTH

PROJECT: SHERRICK FARMHOUSE		DATE	DRAWING NO.
ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND		PROJECT NO. #1230	SK5
		SCALE 1/8" : 1'-0"	317



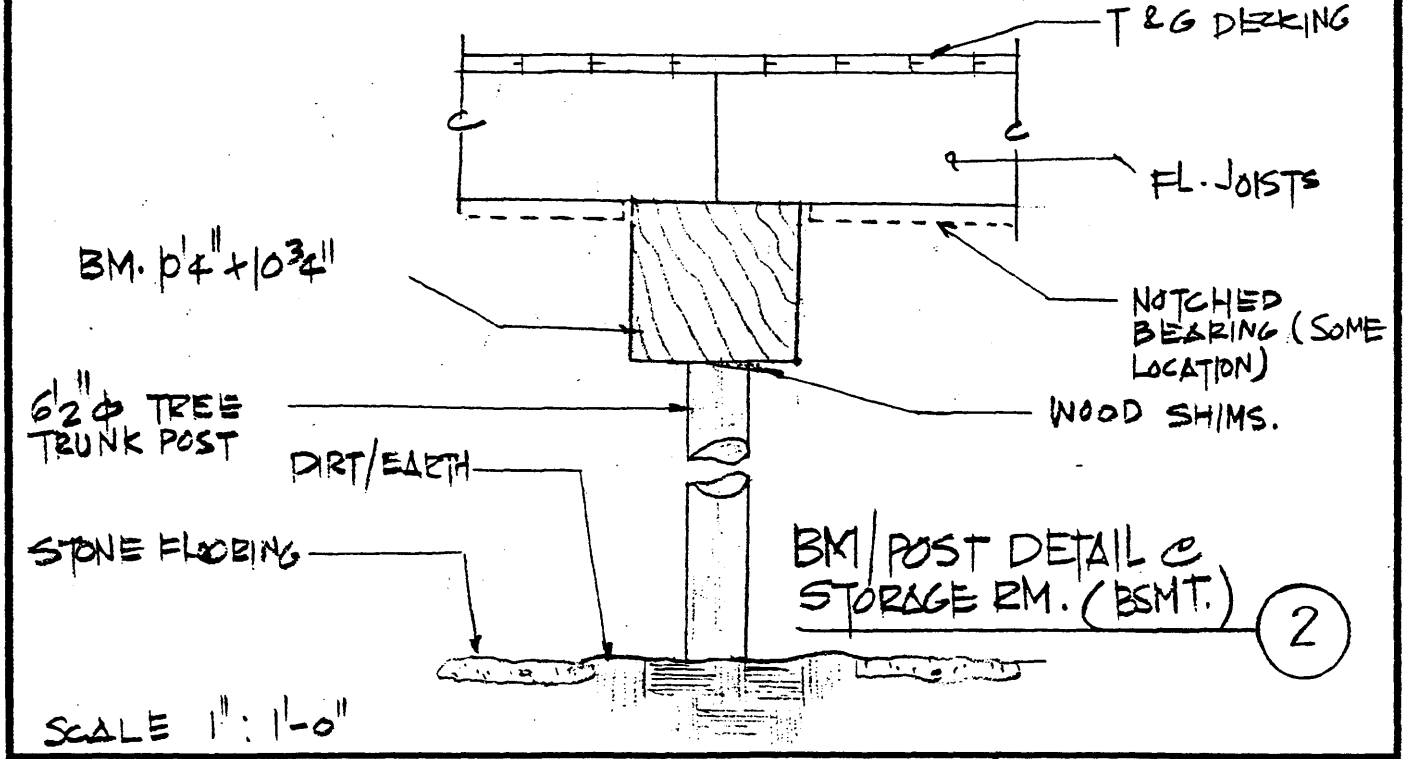
ROOF FRAMING PLAN

PROJECT	DATE	DRAWING NO.
SHERRICK FARMHOUSE		
ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND	PROJECT NO. #230	SK6
	SCALE 1/8" : 1'-0"	319



FLOOR JOIST TO BEAM CONNECTION (MORTISE-TENON JOINT) (1)

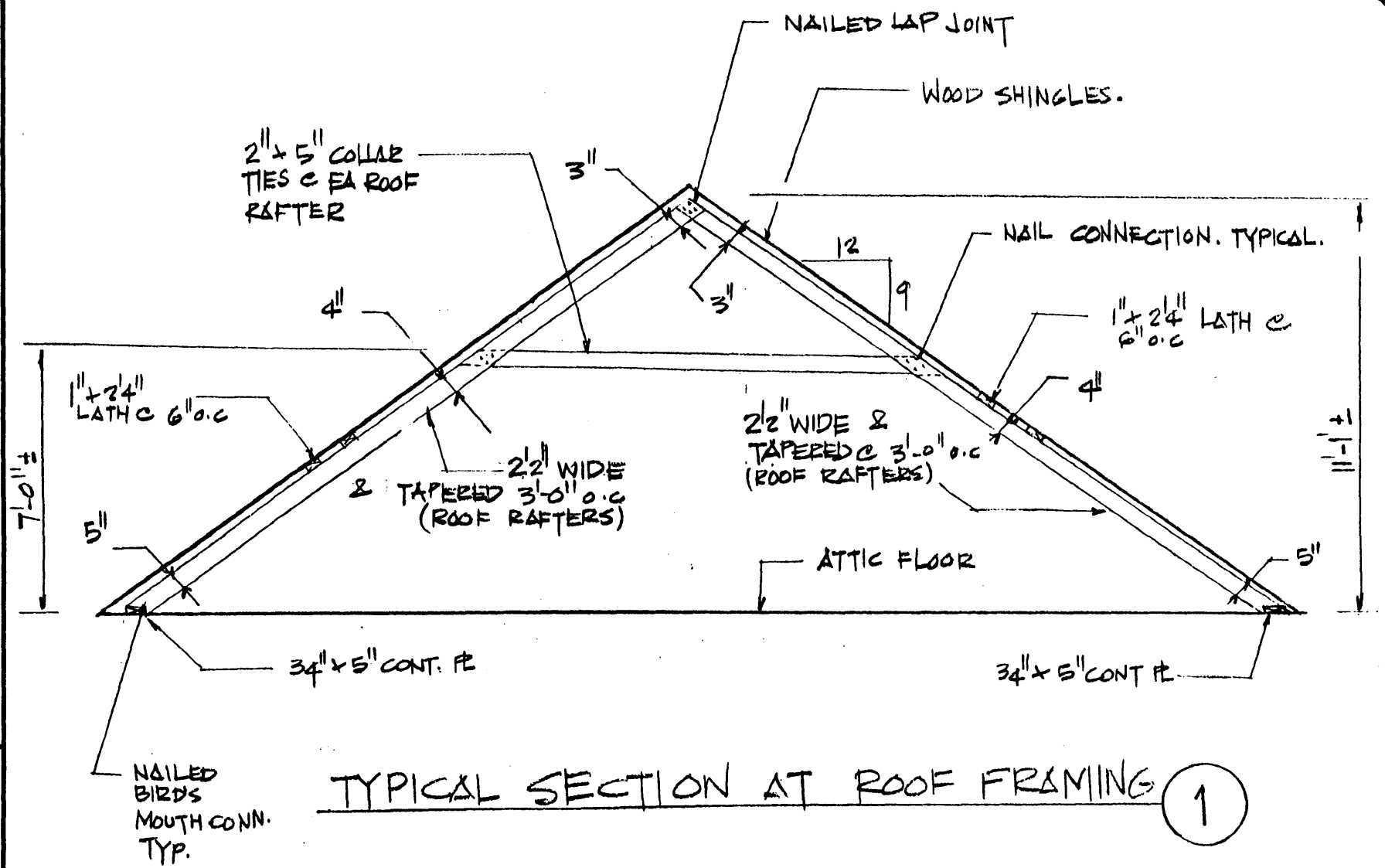
SCALE: 3": 1'-0"



BM/POST DETAIL @ STORAGE RM. (BSMT.) (2)

SCALE 1": 1'-0"

PROJECT: SHERRICK FARMHOUSE	DATE:	DRAWING NO.
ANTIETAM NATIONAL BATTLEFIELD PARK SHARPSBURG, MARYLAND	PROJECT NO. #1230	SK7
	SCALE AS SHOWN	321



TYPICAL SECTION AT ROOF FRAMING 1

PROJECT
SHERRICK FARMHOUSE
ANTIETAM NATIONAL BATTLEFIELD PARK
SHARPSBURG, MARYLAND

DATE

PROJECT NO. #1230

SCALE 1/4" = 1'-0"

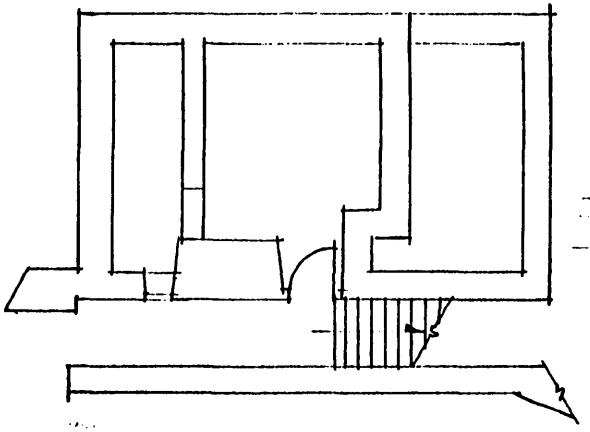
DRAWING NO. SK8

323

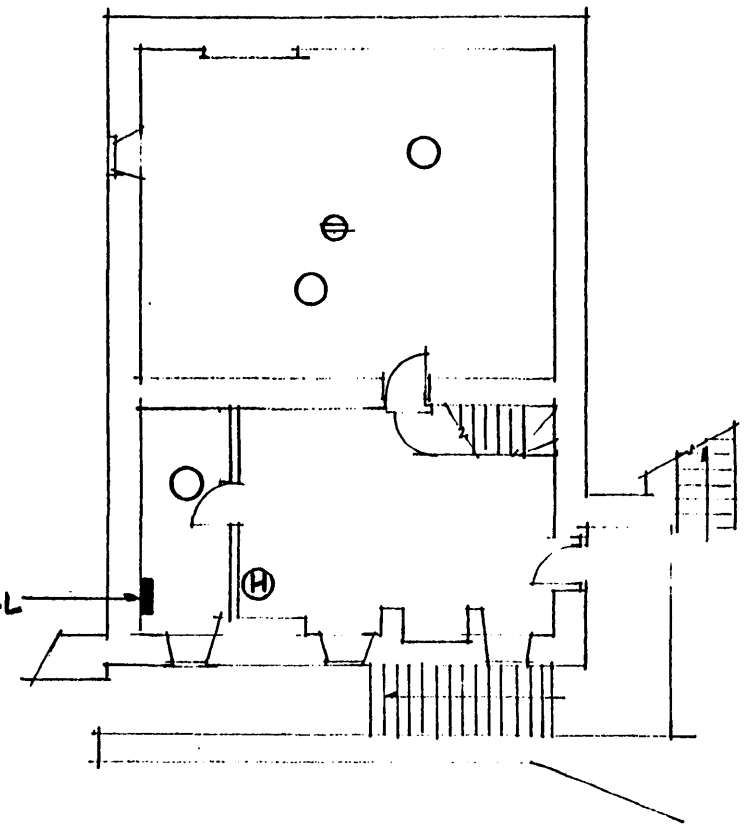
APPENDIX G:
ELECTRICAL DRAWINGS

SYMBOL LIST

- INCANDESCENT LIGHT
- DUPLEX RECEPTACLE
- (H) ELECTRIC HEATER
- S SINGLE POLE TOGGLE SWITCH
- ELECTRICAL PANELBOARD

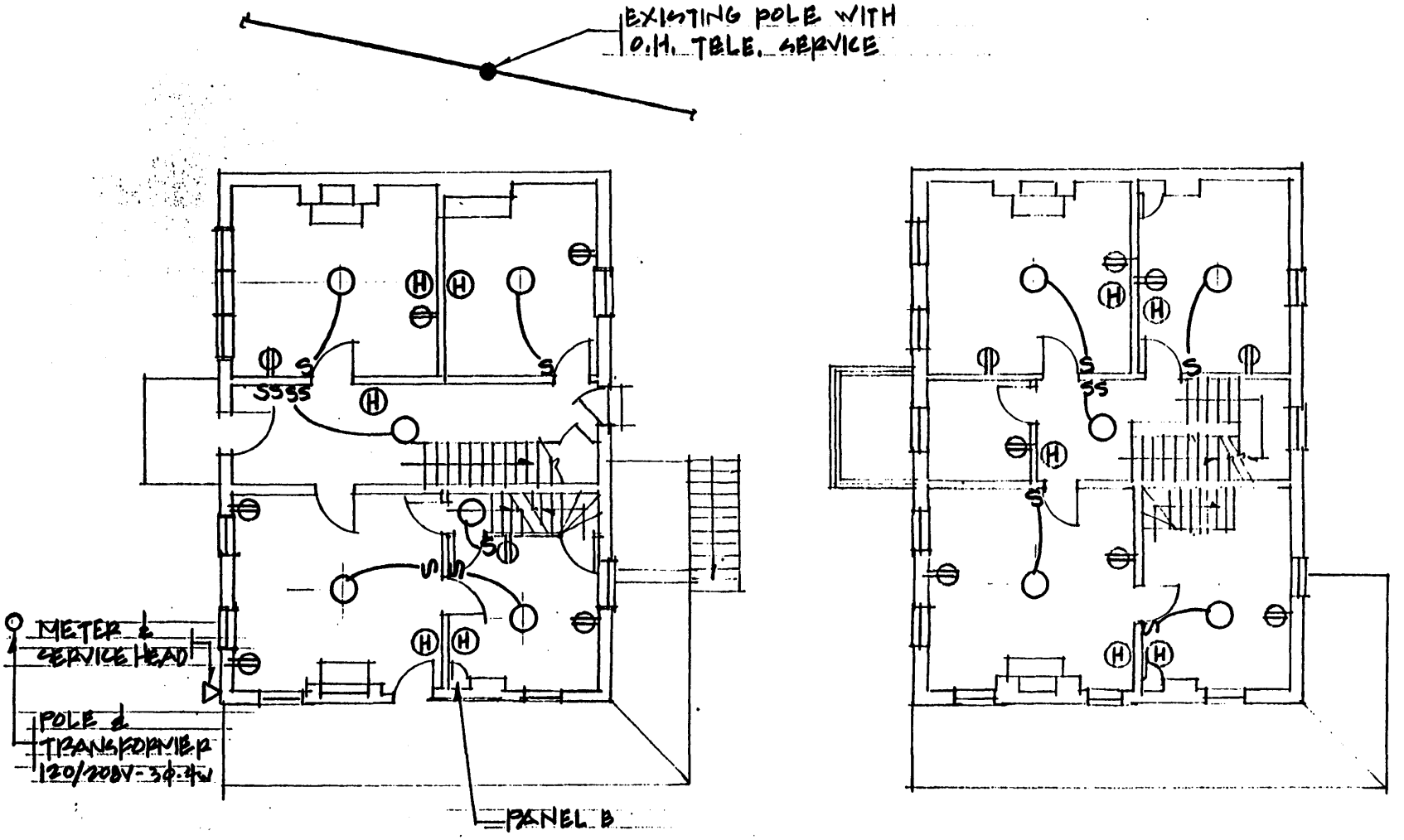


SUB-BASEMENT PLAN



BASEMENT PLAN

SHERRICK HOUSE
EXISTING ELECT. CONDITIONS



FIRST FLOOR PLAN

SECOND FLOOR PLAN

SHERRICK HOUSE
EXISTING ELECT. CONDITIONS

APPENDIX H:
SITE EVALUATION FOR SEPTIC DISPOSAL

APPENDIX H:
SITE EVALUATION FOR SEPTIC DISPOSAL

United States Department of the Interior

NATIONAL PARK SERVICE
Antietam National Battlefield
Monocacy National Battlefield
P.O. Box 158
Sharpsburg, MD 21782-0158

IN REPLY REFER TO:

August 23, 1994

H30

OEHRLEIN & ASSOCIATES

AUG 25 1994

Oehrlein and Associates, Architects
1702 Connecticut Avenue N.W.
Washington, D.C. 20009
Attention: Mr. Reid Black

Dear Mr. Black:

I have enclosed the following information for your use, as per our telephone conversation on August 22,1994. I hope you find it helpful.

If you have any questions or concerns, please feel free to call me on (301) 432-2243.

Sincerely,

Richard H. Brown

Richard H. Brown
Chief, Cultural Resources Division

Enclosure

April 16, 1987

Memorandum

To: Historic Architect, Design Services

From: Research Agronomist and Soil Scientist, Center for Urban Ecology

Subject: Site Evaluation for Septic Disposal, Sherrick House, Antietam National Battlefield

At your request, we completed a review of appropriate literature and a field soil survey to evaluate the site for a potential septic field at the Sherrick House. The survey was conducted in a pasture 500 to 1,000 feet northeast of the house.

The literature review indicated that a suitable soil for septage treatment may exist at the aforementioned site. Prior to our visit, we conferred with the Resource Management staff of the park and the Public Health Officer in NCR to coordinate pertinent information.

The field investigation was completed on April 10, 1987. We found the soil was a Duffield silt loam, as mapped in the Washington County Soil Survey, but was a possible variant of the soil series. This soil was shallow to bedrock with a significant textural increase to silty clay loam below the surface 3 to 6 inches of silt loam topsoil. Near the contact with the bedrock we noted the presence of saturated soil. Bedrock was encountered from 7 to 36 inches at all sampling locations.

Therefore, we would recommend against using the site for a traditional in-ground septic field because of the marginal soil conditions and depth to bedrock. If other alternatives were discounted and the site considered as the only alternative for disposal, the far northeastern corner of the pasture had the most suitable soil and a mounded system would be recommended.

If the site were selected, waste would have to be pumped upslope to the site. The slope immediately behind the house is 10% and levels off to about 1% before increasing again to 6% at the site. The distance from the house to the site is 1,000 to 1,300 feet.

It was our collective opinion that the most suitable solution to the waste handling problem would be a connection to the municipal treatment system. This alternative would benefit the Otto House across the road and provide for unanticipated future use of both properties.

Enclosed please find a copy of the soil boring locations with a log of the profile conditions and a photocopy of the general geology map.

If we may be of further assistance please contact us at 342-1443.

Signed

James C. Patterson

Signed

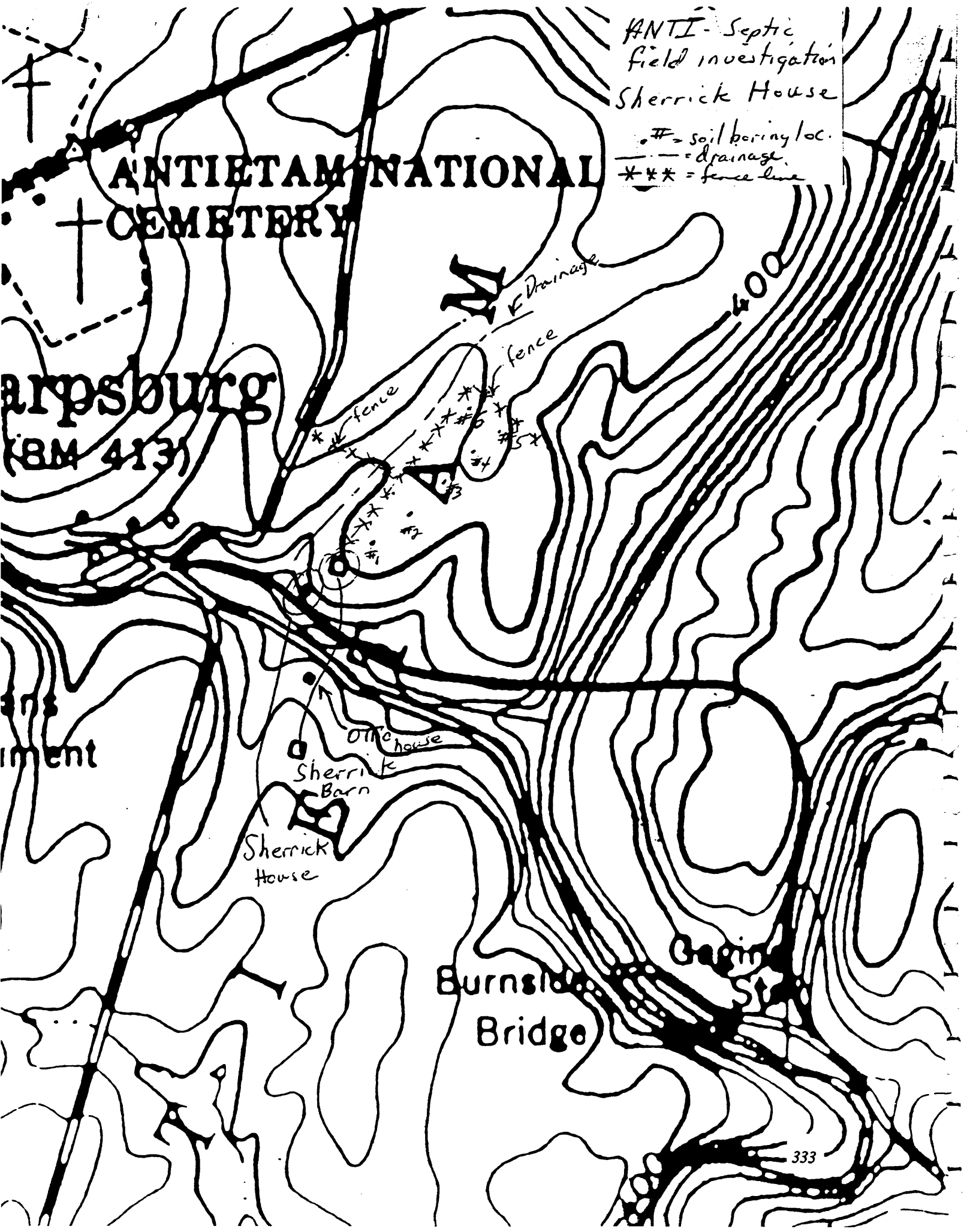
John R. Short

Enclosures

bcc:
NCR-Surname/Files
OPH-Tom Bartholomew
ANTI-Acting Superintendent
ANTI-Resource Management Specialist
PNS-Patterson
PNS-Short
PNS-Files
JCPatterson:med:4/16/87:X342-1443 CPT DISK/Patterson/MDU-MDU2

Log of Soil Borings, Sherrick House ANTI
Proposed Site for Septage Field

Sample No	Depth (in)	Description and notes
1	0-4	dark granular and friable silt loam topsoil
	4-13	silty clay loam to clay loam
	13	auger refusal
2	0-4	friable silt loam topsoil
	4-7	silty clay loam to clay loam
	7	auger refusal
3	0-3	friable silt loam topsoil
	3-11	silty clay loam
	11-36	faint mottling, at approx. 30" limestone limestone fragments and talc-like substance
	36	auger refusal
4	0-5	silt loam topsoil
	5-18	silty clay loam with limestone chips at 9", siltstone was found and manganese concretions were present
	18	auger refusal
5	0-3	silt loam topsoil
	3-6	silt loam
	6-18	silty clay loam
	18-36	silty clay loam
	36	auger refusal, standing water was noted on the surface of the bedrock
6	0-3	silt loam topsoil
	3-6	silt loam
	6-18	silty clay loam
	18-36	silty clay loam
	36	auger refusal, standing water was noted on the surface of the bedrock

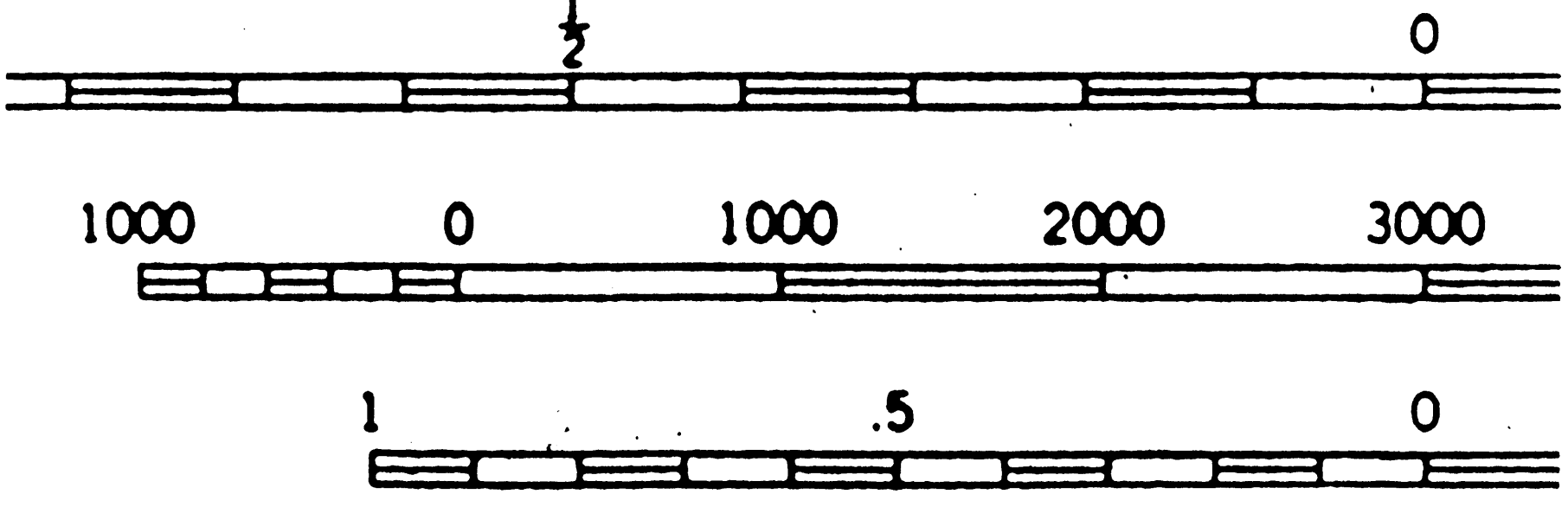

ANTI - Septic field investigation Sherrick House
#= soil boring loc.
= drainage
*** = fence line
ANTIETAM NATIONAL CEMETERY
arpsburg
(BM 413)
Drainage
fence
fence
400
#1
#2
#3
#4
#5
#6
Office house
Sherrick Barn
Sherrick House
Burnside Bridge
Cemetery St
333



268 (HARPERS FE

5462 I SW

SCALE 1:24



CONTOUR INTERVA

DATUM IS MEAN SI

EGHENY PLATEAU AND LLEY AND RIDGE

ORDOVICIAN

Juniata Formation
Red to greenish-gray, thin- to thick-bedded siltstone, shale, subgraywacke, and protoquartzite; interbedded conglomerate; thickness 180 feet in east, increases to 500 feet in west.

Martinsburg Formation
Upper part rhythmically interbedded graywackes, siltstones, and dark shales; lower part dark brown, dark gray, and black, thin-bedded fissile shale; thickness 2,000 to 2,500 feet.

Chambersburg Limestone
Dark gray, fine- to medium-grained, thin-bedded argillaceous limestone; nodular and fossiliferous; thickness 225 to 250 feet.

St. Paul Group

New Market Limestone
Upper part gray, thick-bedded calcilutite; fossiliferous; lower part light gray, thin-bedded, laminated argillaceous calcilutite; thickness 285 feet in south, increases to 700 feet in north.

Row Park Limestone
Light gray, fine-grained, medium- to thick-bedded calcarenite; calcilutite, and dolomitic limestone; interbedded dark gray, cherty, granular limestone; thickness 100 feet in south, increases to 680 feet in north.

CAMBRIAN

Beekmantown Group

Pinesburg Station Dolomite
Light gray, laminated and mottled cherty dolomite; nonfossiliferous; thickness 375 to 500 feet.

Rockdale Run Formation
Upper one-third gray, mottled, cherty dolomite and dolomitic limestone; lower two-thirds gray, cherty argillaceous calcarenite and algal limestone with interbedded dolomite and oolitic limestone; thickness at least 1,700 feet east of Conococheague Creek, increases to about 2,500 feet in west.

Stonehenge Limestone
Upper part gray, thin-bedded, coarse-grained to conglomeratic, oolitic calcarenite; some dolomite; lower part gray, thick-bedded, fine-grained algal limestone; thickness 500 to 800 feet.

Conococheague Limestone
Dark blue, laminated, oolitic, argillaceous, and siliceous limestone, algal limestone, and flat-pebble conglomerate; siliceous shale partings; some sandstone and dolomite; thickness 1,600 to 1,900 feet.

Elbrook Limestone
Light blue, laminated, argillaceous limestone and calcareous shale; some dolomite; thickness 1,400 to possibly 3,000 feet.

Waynesboro Formation
Upper part red, gray, and yellowish-brown, thin-bedded siltstone, shale, and ripple-marked, cross-bedded sandstone; lower part interbedded dark gray to red shale and thin-bedded dolomite; thickness approximately 600 feet.

SOUTH MOUNTAIN ANTICLINORIUM AND FREDERICK VALLEY

TRIASSIC

Diabase Sills and Dikes
Sills: Greenish-gray to black, medium-gra[ined]; dikes: Greenish-gray to black, medium- to fine-grained; local contact metamorphic aureoles.

Newark Group

Gettysburg Shale
Red shale and soft red sandstone and siltstone; [es]timated thickness less than 5,000 feet.

New Oxford Formation
Trno
Red, maroon, and gray sandstone, siltstone, [and] shale; basal conglomerate member: From vicin[ity] Maryland Rte. 73 and southward, limestone [con]glomerate with red and gray calcareous ma[trix]; northward, quartz conglomerate with red sandy matrix; estimated total thickness 4,500 feet.

ORDOVICIAN

Grove Limestone
Dark gray to light dove, thick-bedded lime[stone]; dolomite beds in lower part; highly quartzose [lime]stone at base; Upper Cambrian to Lower Ordovician in age; thickness approximately 590 feet.

Frederick Limestone
Cf
Blue, slabby, thin-bedded limestone and minor s[hale]; contains Upper Cambrian (Trempealeauian) fauna[le]; thickness approximately 480 feet.

CAMBRIAN

Tomstown Dolomite
Ct
Interbedded light gray to yellowish-gray, thin- to thick-bedded dolomite and limestone; some shale layers; gradational contact with Antietam; thickness 200 to 1,000 feet.

Antietam Formation
White to dark gray and brown, thick-bedded, fine- to coarse-grained quartzite with thin argillaceous partings; first occurrence of Lower Cambrian fossils; cleavage generally obscures bedding; increasingly metamorphosed and phyllitic toward east; estimated thickness 300 to 800 feet.

Chilhowee Group

Harpers Formation
Brown to dark bluish-gray banded shale, to light bluish-gray, finely laminated phyllite; distinctively pale purple in basal part; bedding obscured by cleavage; increasingly metamorphosed toward east, from shale to slate and phyllite; estimated thickness 2,000 feet.

Weverton Formation
Interbedded white to dark gray, thin-bedded, mi[ca]ceous, ferruginous, and sericitic quartzites, phyl[lites] and white, thick-bedded, ledge-making quartz[ites]; some gray to brown ferruginous quartz conglome[rate] and purple-banded phyllite; thickness approximately 100 feet in south, increases to 425 feet in north.

Loudoun Formation
Upper conglomerate member: Quartz and gra[nite] pebbles in pale purple phyllitic matrix; basal phyl[lite] member: Pale purple, discontinuous, lenticular members are in gradational contact; total thickness 0 to 200 feet.

LATE PRECAMBRIAN

Metarhyolite and Associated Pyroclastic Sediments
Metarhyolite: Dense, blue, cryptocrystalline, with white feldspar phenocrysts and glassy quartz; red porphyritic metarhyolite at contact with Catoctin Metabasalt; Pyroclastic sediments: Tuff breccia, slaty tuff, white tuffaceous sericite schist, and banded green slate.

Catoctin Metabasalt
Thick-bedded metabasalt with amygdaloidal [fill] and secondary veins of quartz, calcite, and epi[dote]; interbedded green tuffaceous phyllite and [sch]ist; amygdaloidal metaandesite.

Swift Run Formation
Sericite quartzite and phyllite; blue and gr[een] tuffaceous slate with sericite blebs; some white mar[ble] with interbedded phyllite.

copies given to Rambur

SUPT. Slock
A.O. mew
MAINT.
Ed
MAY 06 1987
Gordon
Dick

United States Department of the Interior

NATIONAL PARK SERVICE
NATIONAL CAPITAL REGION
1100 OHIO DRIVE, S. W.
WASHINGTON, D.C. 20242

May 5, 1987

Memorandum

To: Acting Superintendent, Antietam National Battlefield

From: Research Agronomist and Soil Scientist, Center for Urban Ecology

Subject: Follow-up Site Investigation of Potential Waste Treatment Options for the Sherrick House, Antietam National Battlefield (ANTI)

On May 1, 1987, we completed a second field investigation of several potential septic field sites immediately adjacent to the Sherrick House. Attending the on-site meeting were Tom Bartholomew, OPH, John Blair, LUCE, and park staff. Each site will be addressed individually and general recommendations will follow the site reports.

A. This site is adjacent to the basement level of the house, between the house and the smoke house. Soil depths ranged between 6 and 13 inches before auger refusal. Bedrock was noted at the soil surface adjacent to the smoke house. The insufficient soil depth renders this site unsuitable for waste treatment.

B. This site is immediately in front of the house, between it and the county road. The soil is deeper here than at other sites on the property, but soil mottling and impeded drainage were noted in all auger holes. A small area immediately downslope of the smoke house had a soil depth of 36 inches. However, the Washington County Health Department indicates that "no standard trench system shall be installed on those sites where a limiting condition occurs shallower than 60 inches". Therefore, this site was deemed unsuitable.

C. The site in the front yard adjacent to the main entrance was investigated and found to be unsuitable because of shallow soils.

D. A site immediately upslope from the smoke house was investigated, and we noted the existence of a large amount of bedrock at the soil surface; therefore, the site was deemed unsuitable for waste disposal.

E. A site outside of the perimeter fence around the house and upslope from it was rejected because of a large amount of surface bedrock.

F. We returned to the field above the barn to review the options for waste treatment there; however, because of poor soils, presence of bedrock and distance from the house, we deemed the site unsuitable.

G. A final site east of the house along the county road was investigated. This site occupies a colluvial area in the first ravine east of the house. Although very restricted, it had soils nearly 60" deep. In the lower profile, some soil mottling was noted. The area may be suitable for a mounded septic field. Because of its limited size, it may be limited to disposal of one or two person's waste for the short term. The County Sanitarian or the Washington County Health Department should be consulted for their approval of the site.

After investigating the alternative sites near the Sherrick House, we conclude that site G (above) was the most suitable location for an in-ground waste treatment system. It is located approximately 500 to 600 feet east of the house. The soil is marginally suitable and the mounded septic system would likely be the best adapted to the location. The County Sanitarian should be consulted for his approval and design considerations.

We are quick to point out, however, that the development of option G is not the best recommendation for a long-term solution of the waste treatment problem at the Sherrick House. The best option is direct connection to the Sharpsburg Municipal Waste Treatment System. This option would solve long-term questions concerning leasing of both the Sherrick and Otto Houses. It would also resolve the problem of the amount of waste which could be handled by any one system installed at either house. Should the Sherrick House be served by a septic system at location G, this solution would be temporary at best and capable of serving only two individuals. If a connection to the municipal system were completed, the number of persons served would be of no concern and the solution would be permanent.

The soils near the Sherrick House are marginal at best and generally unsuitable for in-ground waste treatment systems. If a system were installed in these soils, the term of its effectiveness would be limited. The best option is to connect with the Sharpsburg Municipal Waste Treatment System. Although the initial cost is high, it offers the greatest flexibility for future expansion and interpretation of park resources, and may offer lower long-term costs than the other alternatives.

James C. Patterson

John R. Short

United States Department of the Interior

NATIONAL PARK SERVICE
NATIONAL CAPITAL REGION
1100 OHIO DRIVE, S. W.
WASHINGTON, D.C. 20242

MAY 12 1987

Memorandum

To: Acting Superintendent, Antietam National Battlefield

From: Environmental Sanitation Consultant, NCR

Subject: Site Investigation of Potential Wastewater Disposal Sites, Sherrick House, May 1

The May 5 memorandum from the Research Agronomist and Soil Scientist of the Center for Urban Ecology relative to the subject investigation adequately describes the potential sites for wastewater disposal. Comments and recommendations concerning waste disposal for the building follow.

1. Connection to the Sharpsburg Municipal wastewater system should be further evaluated. A septic tank effluent pumping system is one alternative. The facilities required include a septic tank, effluent pumping tank, pumping equipment and a small diameter pipe line connected to the municipal system.

2. Other wastewater disposal alternatives considered require the same facilities in addition to subsurface disposal facilities. The other facilities may require a shorter pipe line depending on location.

3. If connection to the municipal system is not feasible additional discussions with the County are recommended prior to further investigation of the other alternatives. Items for discussion include the following.

   A. Clarification of reasons for rejection of site previously evaluated by the county and discussion of possible site modifications to allow utilization of this site.

   B. Evaluation of site G and discussion of possible site modifications to allow utilization of this site.

C. Acceptable wastewater design flow for the building. The county may require wastewater disposal facilities to be designed based on the number of bedrooms, etc.

D. Greywater wastewater disposal requirements.

4. The lease should require the use and maintenance of low flow plumbing fixtures if on-site wastewater disposal facilities are utilized (shower heads, faucets, laundry facilities, commodes, etc.).

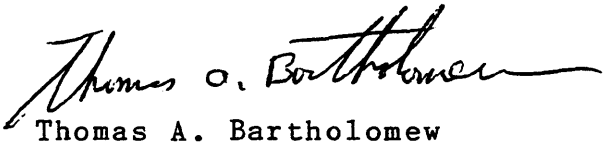
5. Wastewater disposal facilities design should anticipate occupancy of the building by more than one or two persons. Tanks, plumbing facilities, etc. should be designed for a greater number of users.

6. The use of a Clivis Multrum unit has been proposed. The wastewater volume produced by one or two persons using a low water use commode (1.5 gallons/flush) will not have a significant impact on the volume of wastewater from the building. The only advantage of using a Clivis unit will be if the county has different requirements for disposal of greywater.

7. It appears that a wastewater disposal system can be installed on site to serve a Sherrick House occupancy level of one or two individuals and meet Public Health protection requirements. (Compliance with County Standards may be a problem.)

In summary the recommended approach to providing wastewater disposal facilities at Sherrick House is to design and construct facilities adequately sized to serve any reasonably anticipated use of the building and connecting to the municipal wastewater disposal facilities.

A copy of executive order 12088 concerning compliance with Pollution Control Standards is attached. Please contact me if these are any questions relative to my comments or if I can provide further assistance.



Thomas A. Bartholomew

Attachment

APPENDIX I:
COLOR TRANSPARENCIES

Sherrick House
Antietam National Battlefield Park
Color Transparencies
Photographed by David Amundson
June, 1994

Sheet 1

1 Farmstead and farm from southwest.

2 Farmstead from southwest.

3 Farmstead from southwest.

4 Farmstead from south (similar to Alexander Gardner's 1862 photograph).

5 House, south elevation.

6 House from southeast.

7 House retaining wall and porch.

8 House, west elevation.

9 House from northeast.

10 House, east elevation.

11 Penciling on brick, and upper corner of door to south porch.

12 Penciling on brick and corner of dining room south window.

13 Summer kitchen and house from the east.

14 Summer kitchen, detail of gable and roof from the northwest.

15 Corn crib from the northeast.

16 Corn crib, interior detail looking at southwest corner framing.

17 Barn, west foundation wall from the south.

18 Barn foundation walls from the south.

19 House interior, main stair, from the west.

20 House interior, main stair detail at landing.

Color Transparencies, cont.
Sheet 2

21 Fireplace in 1st floor northwest parlor.

22 Fireplace in 1st floor parlor, detail showing marbleizing, upper left.

23 Fireplace in 1st floor parlor, detail showing marbleizing, upper right.

24 Fireplace in 1st floor dining room.

25 Fireplace in 1st floor northeast bedroom.

26 Fireplace in 2nd floor southwest bedroom.

27 Fireplace in 2nd floor northwest bedroom.

28 House interior, sill, paneled jamb and casing of south parlor window.

29 House interior, view from dining room to parlor.

30 Door from dining room to servant room.

31 Door from servant room to dining room.

32 2nd floor northeast bedroom door, from hall.

33 2nd floor southwest bedroom door, from bedroom.

34 Carpenter latch and Norfolk latch in NW corner servant room.

35 Carpenter latch on door from hall to dining room.

36 Carpenter latch on door from dining room to hall.

37 Norfolk latch on door from 2nd floor stair to servant room.

38 Norfolk latch on door from servant room to stair to 2nd floor.

39 Baldwin hinge on door between dining room and stair hall.

40 Clark hinge on door from nursery to bedroom (upper hinge).

APPENDIX J:
SUMMER KITCHEN HISTORIC STRUCTURE REPORT
1968

Historic Structures Report
Architectural Data Section
Survey Report for Piper Farm,
Dorsey Farm, Spielman Farm

Antietam National Battlefield Site

by Archie W. Franzen
October, 1968

U.S. Department of the Interior
National Park Service
Office of Archeology and Historic Preservation

The following section from the 1968 Historic Structures Report describes and documents the condition of the Sherrick House summer kitchen in 1968. In the report, the Sherrick Farm is referred to as the Dorsey Farm, and the summer kitchen is referred to as the smokehouse.

SURVEY REPORT FOR PIPER FARM, DORSEY FARM, SPIELMAN FARM

I. GENERAL

This report covers stabilization measures that need to be taken to preserve three minor farm structures on as many farms lying within the Antietam National Battlefield Site.

The structures under consideration are the slave quarters located on the Piper Farm, a smoke house or meat curing building on the Dorsey Farm, and the spring house on the Spielman Farm.

All three structures have received little or no maintenance for a number of years and as a consequence serious settling, leaking and general weathering have taken their toll. Unless this is corrected imminent loss of these interesting farm adjuncts is a certainty. Complete interior restoration is not contemplated at this time. All of these buildings were in the vicinity of heavy fighting during the Civil War action that took place here.

All but the smoke house are used by local farmers under special use permits granted by the National Park Service.

During the months of June and July of 1968, student architects William B. Flickinger, Jr. and Roy W. Reynolds of Virginia Polytechnic Institute measured and recorded the structures. Their drawing are included in the report.

III. THE SMOKE HOUSE (DORSEY FARM)

Description

This 14'-5" x 14'-7" brick structure of one story and a garret stands on a sloping rock hillside, a few feet behind the main dwelling. To provide a level site a stone retaining wall was laid and fill material placed behind the wall.

The foundation walls are of native stone. The brick used in its construction were soft burned and many of them have badly deteriorated. This is particularly true for the brick on the inside of the exterior walls. Diamond patterns of interstics in the brick gables ventilated the attic space in addition to one attic window located over the exterior door to the first floor. The roof is covered with heavily weathered wood shingles that may have replaced a similar older covering.

The first floor has a window in each of the sidewalls and a large fireplace in the rear wall. The flooring is modern wood flooring laid over an earlier wood floor supported on wood joists. The space beneath is filled with loose earthen material. A winding enclosed stair in the corner immediately to the left of the entrance door provides access to the attic. The ceiling of the first floor is composed of post-period beaded boards. The ceiling of the attic space is exposed.

Proposed Work

Before making any repairs to this structure it will be necessary to rebuild the adjacent retaining walls. These walls are of dry wall construction and should be taken down and relaid in mortar with the joints raked back to present a dry wall appearance.

The one exposed foundation wall should be taken down as far as necessary and rebuilt to ensure stability. The loose fill below the first floor should be removed at this time so that the inside face of the wall can be examined to determine if there may have been a previous opening in the wall. A lintel type timber on the exterior of the wall suggest that this may have been the case.

Extensive shoring and needling of the brick superstructure will be necessary to remove and replace damaged and eroded brick as well as to repair areas showing settlement cracks and bulges. The chimney should be rebuilt at this time incorporating flashing at the roof intersection line.

All exterior door and window openings will require extensive reconstruction of frames, sash and the entrance door. As many of the original components should be utilized as possible.

The present roof covering of wood shingles will have to be removed and replaced as the shingles are heavily weathered. As this is done any necessary repairs to the rafters and roofers should be made. There is no evidence of gutters or downspouts.

Any new materials employed should simulate period appearance as the structure is close to and readily seen from the road.

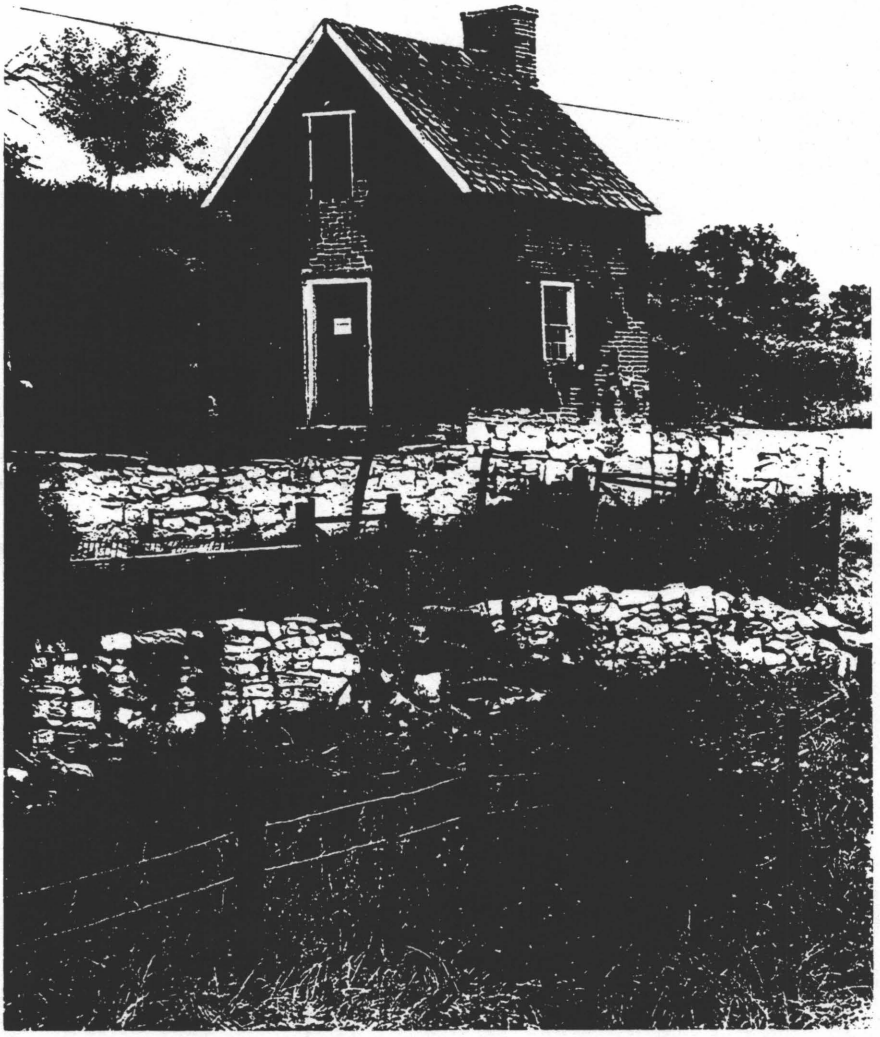
Cost

To accomplish the above outlined work will cost in the vicinity of: $1,500.00

View from south. Shingles appear to be original. Light colored mortar joints were recently repointed as a stabilizing measure. The brick used is relatively soft especially on the interior and within the structure is badly eroded. The masonry, both brick and stone, will require extensive repairs necessitating a considerable amount of needling and shoring. Door and window frames and sills will have to be removed for repairs.

Photographed by: A. W. Franzen

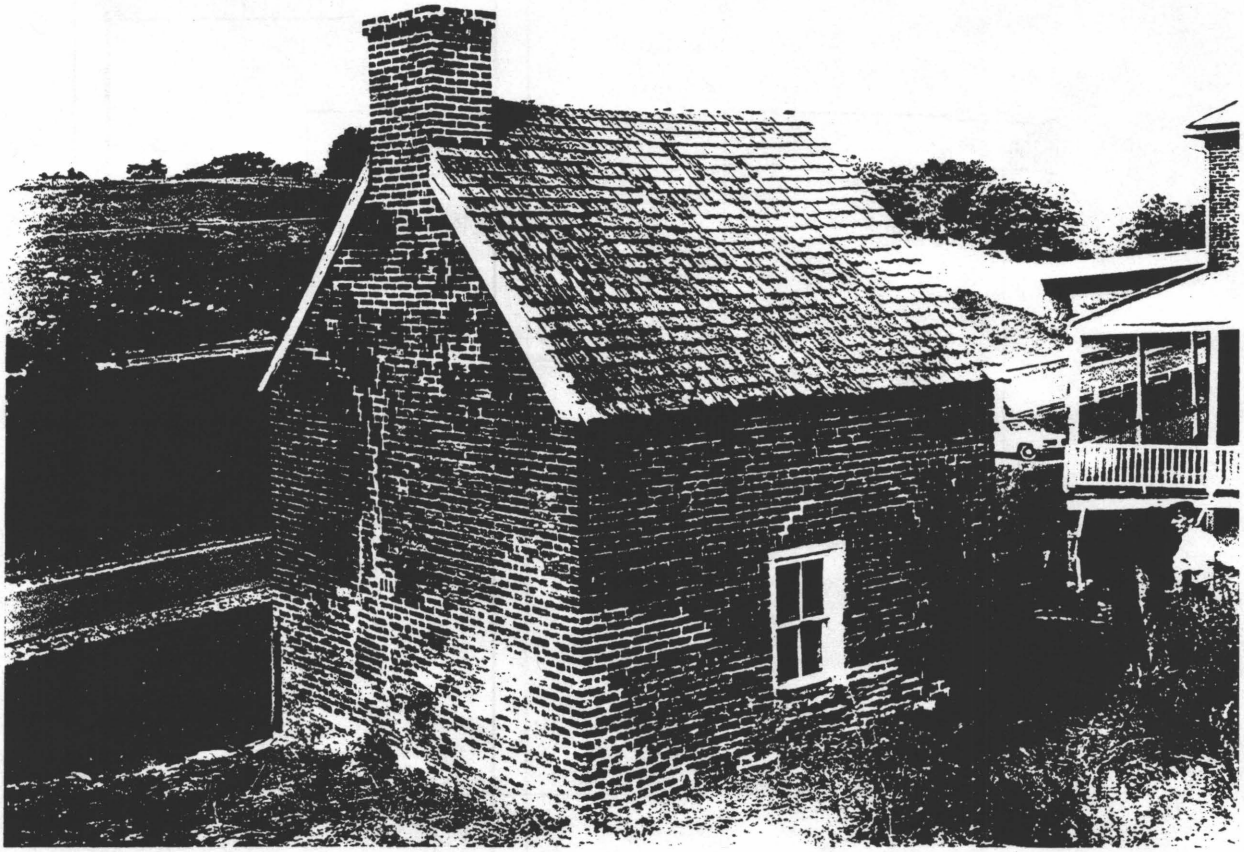
June 1968

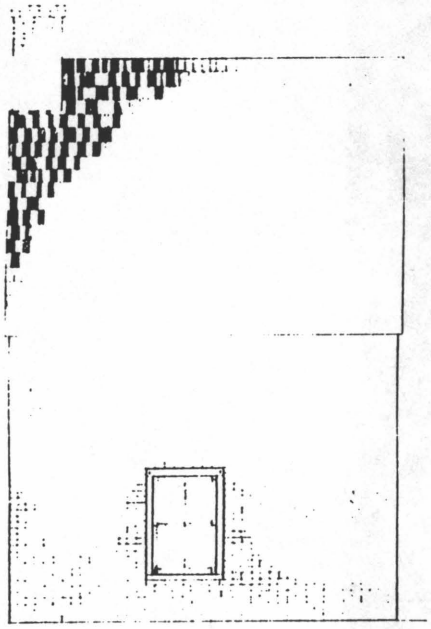


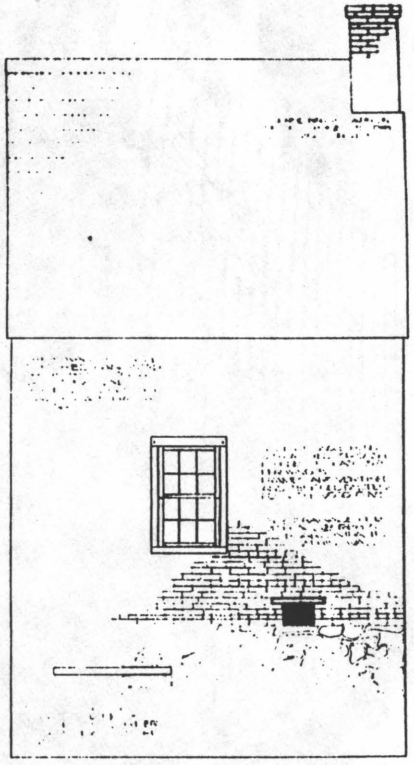
View from north. Rear gable wall needs extensive repairs as vertical cracks have opened from grade to a point on line with the eaves. Some form of sub-surface drainage should be provided to keep the walls dry. Note patterned brick openings for ventilating the attic space. Sash are later and should be 6/6 light sash.

Photographed by: A. W. Franzen

June 1968







ORIENTATION

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SYMBOL	DESCRIPTION OF REVISION	DATE	APPROVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

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REGION
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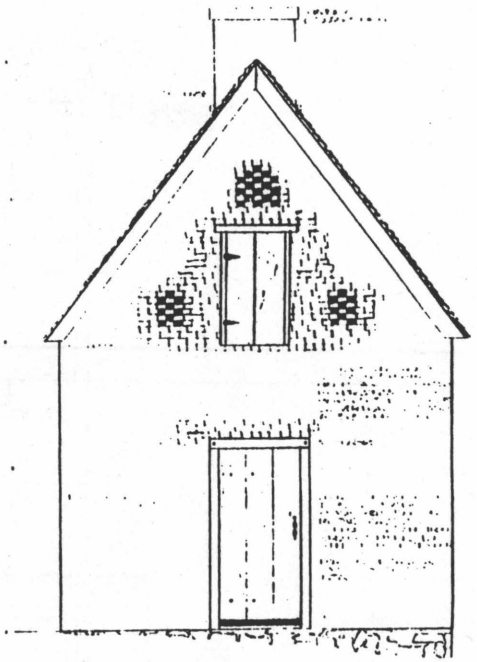

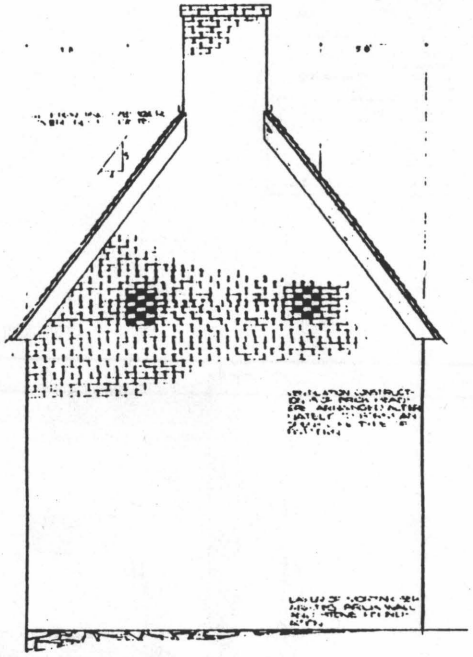

ORIENTATION

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DESCRIPTION OF REVISION

UNITED STATES
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NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

ANTIETAM NATIONAL BATTLEFIELD SITE

ELEVATIONS

REGION NCR

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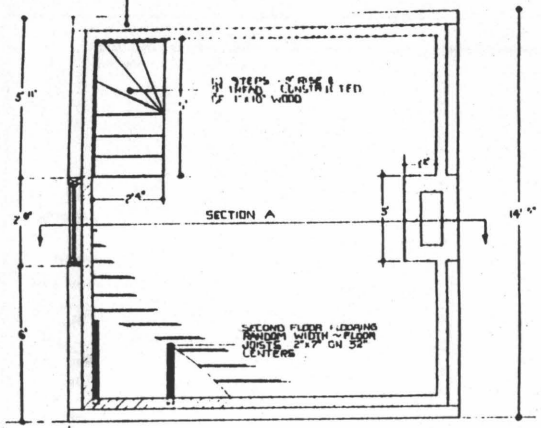
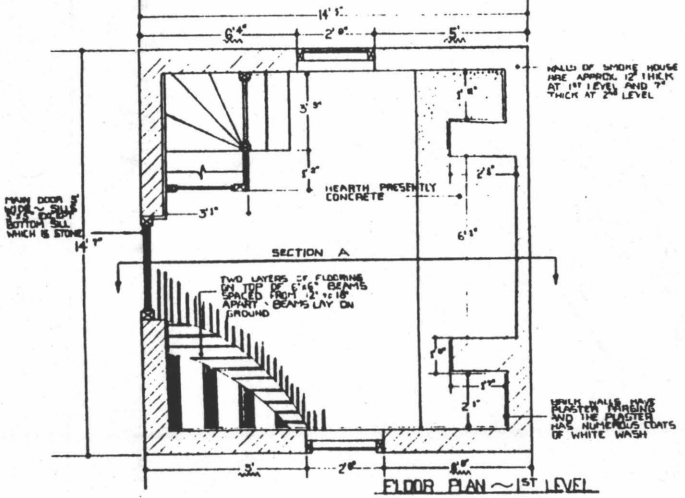
DATE

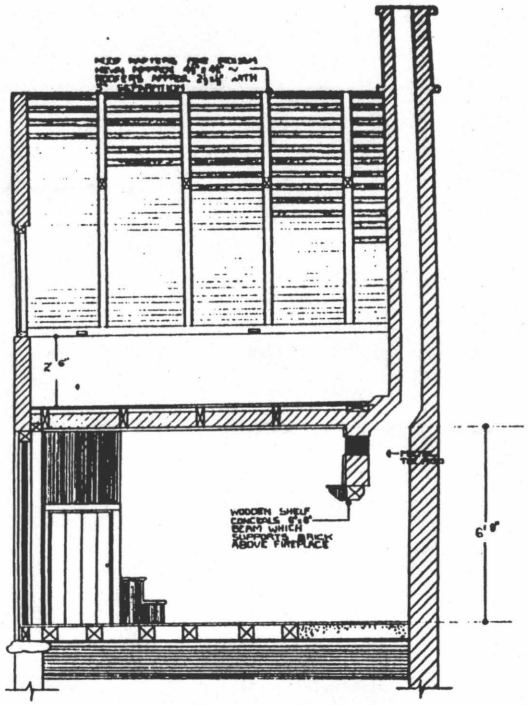
SHEET OF

BASIC DATA FIELD MEASUREMENT

354







SCALE 1"=1'

ORIENTATION

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SYMBOL	DESCRIPTION OF REVISION	DATE

UNITED STATES
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OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

NCR

PCP

DRAWING NO.

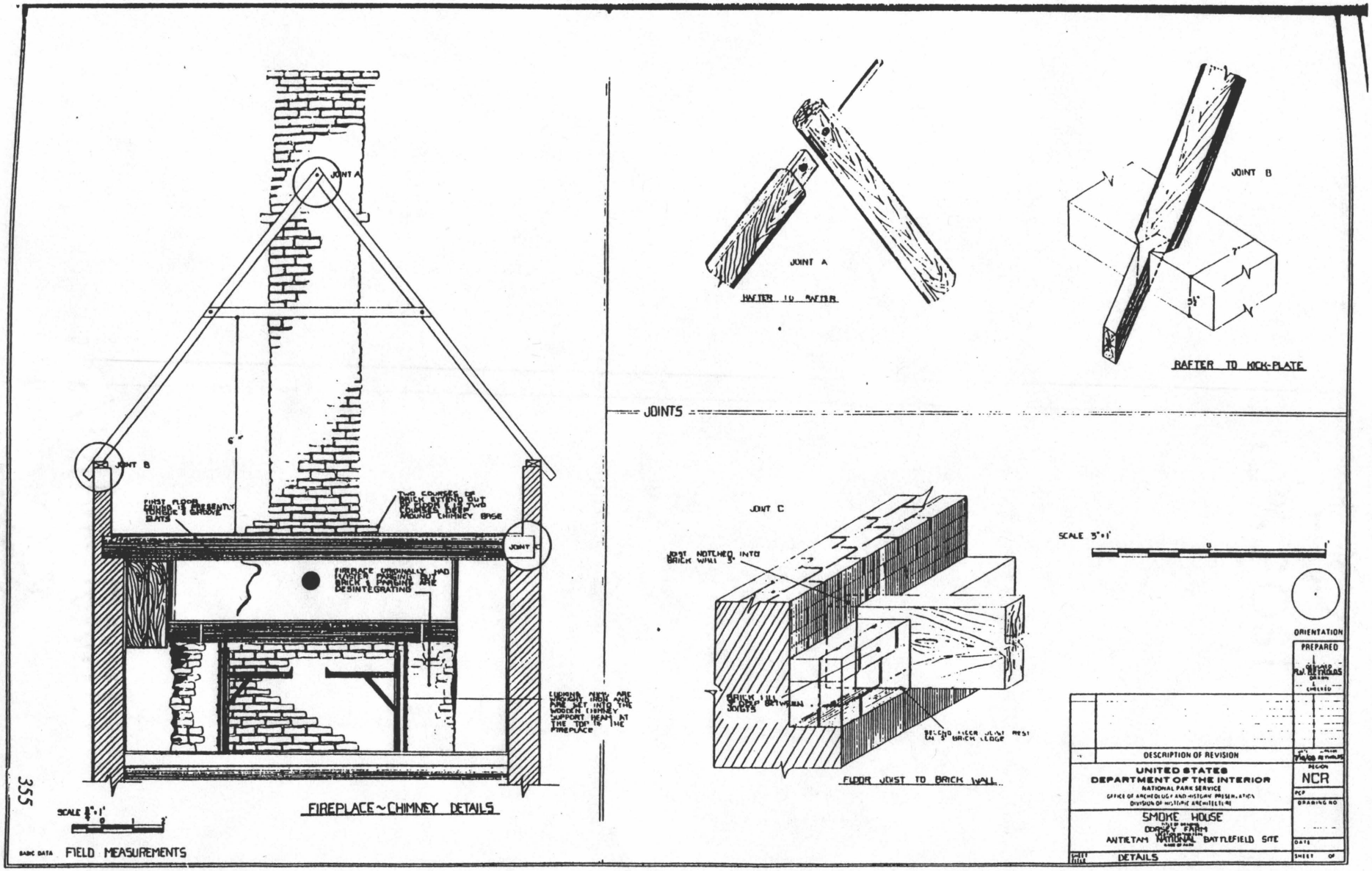
SMOKE HOUSE
DORSEY FARM
ANTIETAM NATIONAL BATTLEFIELD SITE

DATE

PLANS & SECTION

SHEET OF

BASIC DATA FIELD MEASUREMENTS


JOINT A
JOINT B
JOINT C
6"
FIREPLACE ORIGINALLY HAD MASTER PARGING BUT BRICK & PARGING ARE DESINTEGRATING
FIREPLACE~CHIMNEY DETAILS
SCALE 3/4"=1'
BASIC DATA FIELD MEASUREMENTS
JOINT A
RAFTER TO RAFTER
JOINT B
7"
5½"
RAFTER TO KICK-PLATE
JOINTS
JOINT C
JOIST NOTCHED INTO BRICK WALL 3"
BRICK FILL 3" DEEP BETWEEN JOISTS
SECOND FLOOR JOIST REST ON 3" BRICK LEDGE
FLOOR JOIST TO BRICK WALL
SCALE 3"=1'
ORIENTATION
PREPARED
DESCRIPTION OF REVISION
UNITED STATES
DEPARTMENT OF THE INTERIOR
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DIVISION OF HISTORIC ARCHITECTURE
SMOKE HOUSE
DORSEY FARM
ANTIETAM NATIONAL BATTLEFIELD SITE
DETAILS
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