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HISTORIC STRUCTURES REPORT
PART II

ARCHITECTURAL DATA SECTION
on the

McLEAN HOUSE KITCHEN

APPOMATTOX COURT HOUSE NATIONAL HISTORICAL PARK

FEBRUARY 1964

001459

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McLEAN HOUSE KITCHEN

Appomattox Court House National Historical Park
Appomattox, Virginia

Prepared by
Orville W. Carroll
Architect
February 1964

United States Department of the Interior, National Park Service
Eastern Office, Design and Construction

HISTORIC STRUCTURES REPORT

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McLEAN HOUSE KITCHEN

Appomattox Court House National Historical Park
Appomattox, Virginia

A P P R O V A L S H E E T

RECOMMENDED

_____ Date _____
Superintendent

Robert G. Hall Date 2-28-66
Chief, EODC

APPROVED

_____ Date _____
Regional Director, Southeast Region

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I. FOREWORD

This report contains the architectural proposals for the reconstruction of the McLean House Kitchen which were outlined briefly in the Part I, Architectural Data Section of the Historic Structures Report, recommended for approval by Chief, EODC, November 19, 1963. Despite the many documentary photographs on hand, it should be understood at the outset of the project, that much of the architectural detailing is conjectural since the photographic information limits itself to portions of the east, west and north sides of the structure. We have all but discounted the sketches of 1865, because of the varying interpretation of each artist. Hence, the bulk of the interpretative data comes from the study of existing mid-nineteenth century buildings in the Appomattox area. Illustrations and a brief description of these buildings are included in this report.

In the evaluation of the architectural proposals for the Kitchen construction, we must keep in mind that the outbuildings were erected by Charles Raine as part of his Tavern operations, the original use of the McLean House. Speculators such as Raine often overlooked the picturesque or quaintness of buildings constructed of a similar material for a more practical and economical approach to their business expediency.

Orville W. Carroll
Architect
February 1964

II. INTRODUCTION

The reconstruction of the detached Kitchen for the McLean House was programmed for Fiscal Year 1964, with the construction funds set at $17,500.00. As yet, no cost estimate has been worked out by the author. However, a courtesy estimate could be secured from a local contractor, now that the Preliminary Plans are completed, if a cost comparison is desired. One thing is certain, the cost of construction will be far less if all three of the McLean House Outbuildings (Kitchen, Slave Quarters and Ice House) are erected at the same time.

Before any work is contemplated on the outbuildings, certain phases of the construction should be investigated and confirmed. Among these phases are the following: the accurate reproduction of the hand-made brick; the availability of the logs and their selection by the Project Supervisor prior to their purchase; the recording of the stones and bricks in the chimney bases and stone foundation wall; and good samples on the site of hand hewn logs with corner notches and "saddles" for use as visual aids for the carpenters. A tight set of specifications should be written in the event the buildings are to be let on a contractual basis.

III. ARCHITECTURAL RECOMMENDATIONS

It is recommended that the McLean House Kitchen be reconstructed as described in the following pages and as shown on the two sheets of Preliminary Drawings No. NHP-ACH 2022, included as part of this report. If approval is given, working drawings will be required to provide additional information for building purposes.

A. Masonry Work

Illustrations Nos. 10, 11 and 12 show the original stone foundation for the Kitchen walls and chimneys. It provides the information we need in establishing the type of stone, the stone pattern and the wall bond used. Some of the original hand-made bricks can be seen in these photographs. They consistently measure 2-3/4" x 4-1/8" x 8-3/8" with a mortar joint of about 7/16" thick.

1. Foundation Work and Drain Tile

It is recommended that the existing stone foundation be removed and rebuilt over a concrete footing, using uncut faces of field stone with the mortar joints kept back two inches from the exposed face of the wall. The stone work in the wall and chimney bases on the east wall should be rebuilt with the same stones and relaid in the same pattern and manner that they are removed (see Illustrations Nos. 10 and 11). At least one course of brick will be used to level the top of the stone wall on the north and east sides. More courses will be required on the south wall as

shown. A four inch closed joint, terra cotta tile drain is proposed along the east wall to conduct the rain water from the north roof slopes. The downspout at the northeast corner of the porch will be connected to the tile drain which will be discharged in Back Lane.

2. Fireplaces, Hearths and Chimneys

The fireplace on the first floor of the log cabin is intended to be the cooking fireplace. This is suggested by the deeper dimensions of the existing chimney block as compared with the chimney block in the rear room. A movable crane would be mounted to the side jambs of the fireplace. The fireplace in the rear room and the one on the second floor of the log cabin are thought to have been used for heating purposes only. This accounts for their shallow depth and lower opening heigth. It is proposed to build the brick chimneys without flue lining. Occasional fires may be built in the fireplaces without harm, due to the lack of liners. Dampers are proposed for all three fireplaces. It is proposed that all three hearths be constructed of brick, laid in place without exposed mortar joints.

B. Carpentry Work

1. North Section

It is recommended that the north section of the Kitchen be constructed of logs that are left exposed on the exterior and interior surfaces, with the voids between the logs filled with mortar. The mortar

bond can be secured by attaching wire lath to the logs prior to applying mortar. The surface treatment of the wall logs is best seen in Illustration No. 2. It is important that we get similar results. The logs were squared on two opposite sides, with the hewn marks left by the axeman becoming an integral part of the surface texture. This effect can be achieved by first slabbing off the two sides of the log in a sawmill and then hand finishing the edges with an axe. There are three log positions in the north and south walls that require logs squared on four sides; the bottom or sill log, the ninth log upon which the floor joists rested for the first and second floors; and the top log which formed the rafter plate.

It is recommended that the wall logs and log floor joists be pressure treated with an insect repellant prior to construction.

A porch is proposed along the north wall as shown on the architectural drawings. A rain gutter with one downspout is planned for the porch to carry off the roof water which is excessive on this side because of the two roof sections draining in the same direction. The gutter held in place with wrought iron gutter pins will be supported at the top by copper straps. The gutter pins are to be driven through the fascia board into the ends of the rafters on 4'-0" centers. Brick piers over a stone base will support the porch floor at four points located directly under each column.

Entrance into the log section is gained through two exterior

doors. One door is located in the north wall off the porch and the second door is located adjacent to the chimney in the west wall. A set of steps will be required at this entrance. The door and window located in the north wall, first floor, is based on the Featherston notes of 1940, and the west door is assumed to be the opening seen in Illustration No. 3. The three second floor window locations are identified from the photographs, whereas the east window, first floor is conjectural. The window lights are the same size as those used in the McLean House, 10" x 12".

The board and batten doors which are proposed for the Kitchen, were still in common use for outbuildings during the mid-nineteenth century. Cast iron butt hinges were probably used on the doors at the time of its initial construction. This would be the desired choice. If these cannot be obtained, strap hinges with pintels, which are still available, can be substituted. The latches may be either the cast iron rim-locks with brown ceramic knobs (first choice) or wooden drop latches operated by a leather thong. Again, the choice of latches used depends upon the availability of the item. The best location for a modern night latch would be on the exterior board and batten door into the rear room.

2. South Section

It is recommended that the south or rear section of the Kitchen be of frame construction. The four inch depth of the original wall can be achieved by using nominal size 2" x 4" studding with a 3/8" plywood

nailed to the exterior surface under the weatherboarding. To minimize the cost in roof framing the south room, nominal size rafters, 2" x 6"-24" on centers are indicated on the drawings with rough vertical sawn 3" x 4" (net) rafter lookouts placed on 24" centers to form the roof overhang. All of the unexposed parts of the frame work such as the built-up foundation sills - 2" x 8", floor joists - 2" x 8", ceiling joists and rafters 2" x 6", bridging and bracing - 1" x 4" and 2" x 4", can utilize nominal sizes of lumber while maintaining an authentic appearance. The lumber used for the sills, joists and plates should be pressure treated to prevent insect damage.

The east and south window openings are conjectural. Consistent with the north section, the window glass is 10" x 12" and the sash six lights over six. The working drawings will require architectural details showing the design of the sash and muntin mouldings, window frame and trim.

The west board and batten door is assumed to be the opening seen adjacent to the south chimney in Illustration No. 3. Probably nothing more than a set of steps was ever built at the rear door, but with the lack of photographic evidence and the fact that the visual interpretation of the interior room will be through the open door, it is recommended that a stoop be built as drawn. The newel post and handrail for the stoop was patterned after those used on the rear steps to the McLean House (see Illustration No. 2).

A first class exterior reconstruction requires all the exposed faces of the wooden members, weatherboarding, window and door casings, cornice and rake boards, board and batten doors, porch columns, handrails, steps, etc to be hand-planed. This is important in achieving an overall appearance of the mid-nineteenth century.

It is recommended that the exterior wall surfaces with the exception of the log walls, be given two coats of off-white lead paint. The weatherboarding will last many years longer if it is backprimed and the edges set in white lead paint during construction.

3. Roof and Cornice

It is recommended that a wood shingle roof be used on the Kitchen to match the existing roof on the McLean House. The shingles used in the reconstruction of the McLean House were heart cypress. If obtainable, cypress would be first choice. Western red cedar shingles would be suitable in a No. 1 grade, 18" long. Two original shingles with McLean House labels are in the Park museum. One measures 3-1/4" wide and the other four inches, both 18" long. Judging the width of the shingles from the 1865 photograph, they seem to be between 4" and 6". It is recommended that the widths of the shingles be kept between 4" and 6" and the two corners on the butt end clipped about one inch long on a 45° angle to give the "Fish-scale" design.

Twenty-four shingle courses can be counted in Illustration

No. 4. Projecting this to the length of the roof in section, the weather face of the shingle exceeds six inches, the maximum for an 18" length shingle. As a preventative measure against leaks, a two inch strip of waterproof paper will be required across the top of each row of shingles as they are laid. The strip will not be visible. For roof sheathing, a nominal size one inch by four inch (No. 1 grade, not utility grade) can be used except at the roof overhang which will be rough vertical sawn lumber, 1" x 8". The roof sheathing for the porch, which is exposed on the under side, is rough vertical sawn 1" x 8"-10" spaced about 1-1/2" apart. The rafters for the porch, which are exposed, are rough vertical sawn 3" x 4", spaced 24" on centers. This applies to the end wall studding for the porch which is enclosed with weatherboarding above the top plate.

An unusual feature of the roof is the overhang formed by an extension of the rafters rather than the ceiling joists (see Illustration No. 2). The exposed ends of the rafters are about 12" long and would be net 3" x 4" rough vertical sawn members placed on 24" centers. The rafter ends are covered with an unbeaded fascia board and a canted crown moulding. The rake of the weatherboarded gables and the end walls of the rear room are covered with a beaded board having a one inch taper in its length.

4. Interior Work

It is recommended that the interior walls of the north section be exposed logs, with the space between the logs filled with

mortar and whitewash brushed over the wall areas. A substitute of white-wash paint can be used on the exposed hand-hewn ceiling beams and ceiling boards to prevent flaking. An enclosed stairway will be located in the northeast corner of the log section. A closet built under the stairway will house the proposed electrical service panel. One or more electrical outlets to each room can be distributed from this location. An inspection door for the crawl space under the Kitchen is planned in the floor of the closet.

To minimize the cost of obtaining random width floor boards 6" to 10" wide and 1-1/4" thick, it is recommended that 3/4" stock material of these widths be used over a sub-floor of plywood. The new lumber can be treated with an aging solution and then darkened again with an application of hot liquid floor wax containing raw sienna and burnt umber. The second floor boards will be exposed. Therefore, it is important that these be hand-planed on the lower side. These boards are to have a minimum thickness of one inch for structural stability due to the omission of the sub-flooring and the 25" span between the floor joists.

A smooth hard white plaster is recommended for the gable walls and ceiling on the second floor as well as for the ceiling and three walls in the first floor rear room. Whitewash is recommended for all interior plastered surfaces.

Three mantels will be required for the fireplace openings.

C. Utilities

Electrical service is the only utility planned for the Kitchen. It is recommended that an underground service be brought from the McLean House into the Kitchen and located in the closet under the stairway on the first floor.

ILLUSTRATION NO. 1

A photograph taken of the McLean House in April, 1865, showing the detached kitchen in the left background. A magnified view of the kitchen reveals the front porch roof and the "fish scale" design of the shingle butts.

Photo: Brady Collection, No. B6333, April 1865
Neg. on file ACHNHP



THE McLEAN HOUSE AT APPOMATTOX COURTHOUSE, WHERE, ON APRIL 9, 1865, THE ARMY OF NORTHERN VIRGINIA WAS SURRENDERED

After a photograph made the same month.

ILLUSTRATION NO. 2

A close view of the log wall and roof construction, northeast corner of the McLean House Kitchen. Notice the rafter extensions beyond the log wall, a rare construction feature for this area. The square end log, fifth from the top, probably represents the sill for the joists on the second floor.

Photo: A. H. Plecker, ca. 1892
Neg. on file ACHNHP


ACHNHM 914

ILLUSTRATION NO. 3

This view from the west shows the two second floor window openings and what appears to be two exterior doors in the west wall; both doors are placed to the left of the chimney blocks with one door opening into the log cabin and one door opening into the rear room, or the frame weather-boarded section.

Photo: A. H. Plecker, ca. 1892
Neg. on file ACHNHP



ILLUSTRATION NO. 4

This photograph shows the upper portion of the two chimneys located on the west wall. Archeological investigations uncovered the exact position of the two chimney bases shown in Illustration Nos. 10 and 11. A good idea is obtained from this view of where the roof forms intersect and the tie-in of the weatherboards from the gable ends to the rear room. The exact number of shingle courses can be counted in this photograph. Notice the deep extensions of the chimney caps.

Photo: Unknown, ca. 1893
Neg. on file ACHNHP


194.

ILLUSTRATION NO. 5

The width of the north chimney along the west wall can be determined by counting the number of brick stretchers. The amount of corbeling for the chimney caps can be judged with reasonable accuracy in this view. Notice that the rear room showing in the previous Illustration is now gone.

Photo: General Horace Porter, 1914
Neg. on file ACHNHP



ILLUSTRATION NO. 6

The east end of the Kitchen can be seen in the background beyond the Ice House. Notice the window opening in the gable end wall. A steep drop in the ground to the rear prevents the entire east end of the Kitchen from showing further architectural details.

Photo: W. E. Burgess, ca. 1915
Copy Neg. No. EODC 4477



OLD ICE HOUSE, McLEAN PLACE, SURRENDER GROUNDS, APPOMATTOX, VA.

DT-108862

ILLUSTRATION NO. 7

This Appomattox, Virginia house of the mid-nineteenth century, very nearly duplicates the design of the original McLean House Kitchen. The floor level in the rear portion is one step below the front room.

Photo: O. W. Carroll, November 1963
Neg. on file ACHNHP



ILLUSTRATION NO. 8

A contemporary log house of the McLean House Kitchen era near Appomattox, Virginia. The front section has been weatherboarded over the log wall construction. Notice the practice of building front porches across the width of the structure as in the previous illustration.

Photo: O. W. Carroll, November 1963
Neg. on file ACHNHP



ILLUSTRATION NO. 9

A typical log dwelling found in the Appomattox area. There are several such buildings nearby that use the log wall construction for the final exterior and interior finish.

Photo: O. W. Carroll, October 1963
Neg. on file ACHNHP



ILLUSTRATION NO. 10

The south chimney base located in the center of the west wall, rear or south room of the Kitchen. The Kitchen foundation was uncovered and recorded by Archeologist John Walker in 1962. Raymond Godsey, Park maintenance man, holds the scale stick.

Photo: O. W. Carroll, October 1963
Neg. on file ACHNHP



ILLUSTRATION NO. 11

North chimney base, first floor, centered in the west wall of the log cabin. All the stone work of the wall foundation was laid dry without mortar, whereas the brick used for leveling purposes were laid in mortar. The numbered stones were marked to aid in the reconstruction work.

Photo: O. W. Carroll, October 1963
Neg. on file ACHNHP


150
151
154

ILLUSTRATION NO. 12

Looking east along the north stone foundation wall of the log cabin. The stones were irregularly laid in the wall then leveled on top with one or more courses of bricks. The north chimney base shows at right.

Photo: O. W. Carroll, October 1963
Neg. on file ACHNHP



ILLUSTRATION NO. 13

A watercolor sketch of the Kitchen showing the authors interpretation of its original appearance and that of 1865.

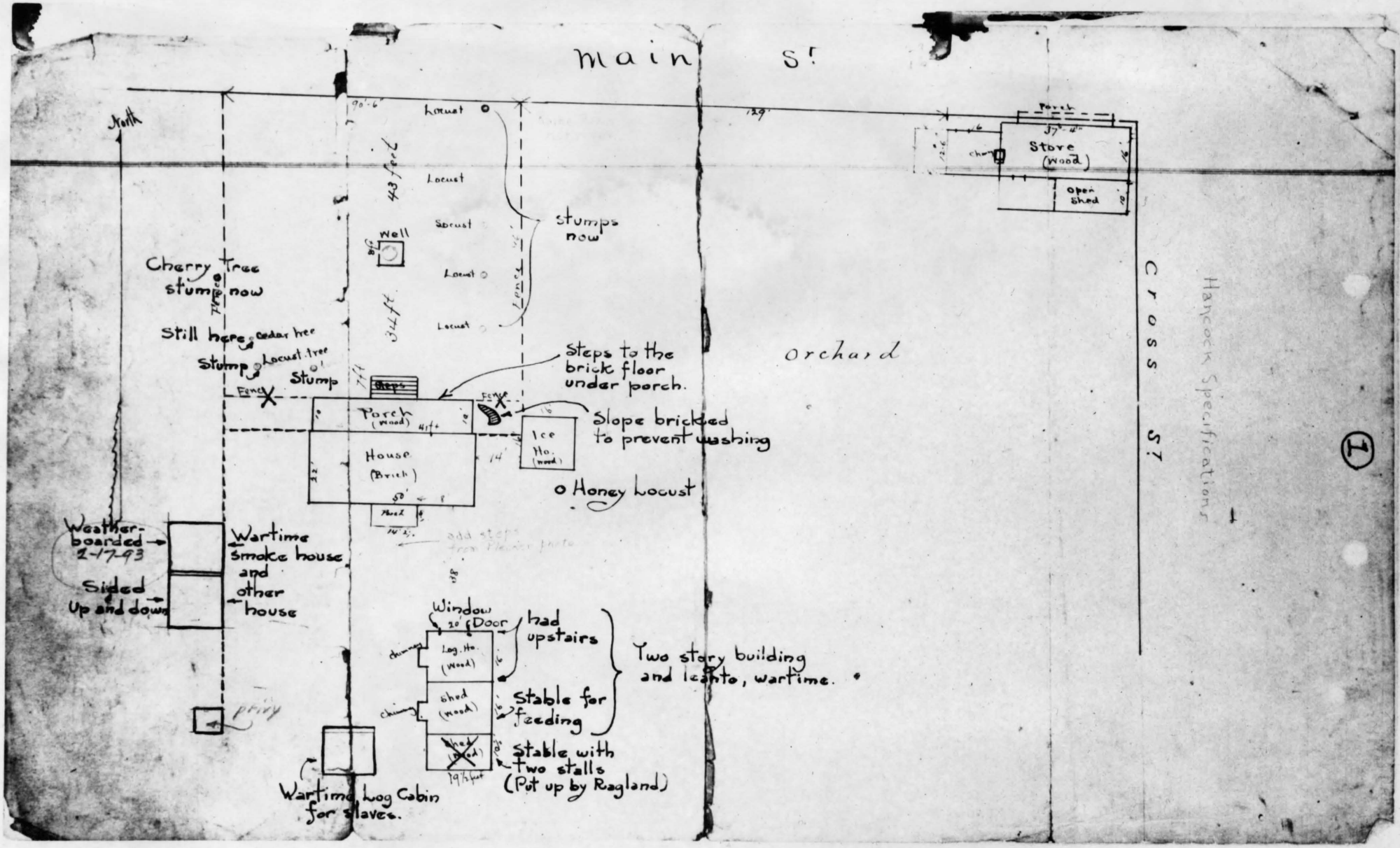
Photo: O. W. Carroll, November 1963
Neg. on file ACHNHP

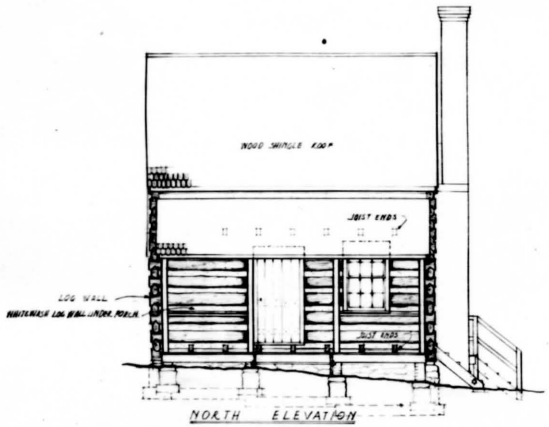


ILLUSTRATION NO. 14

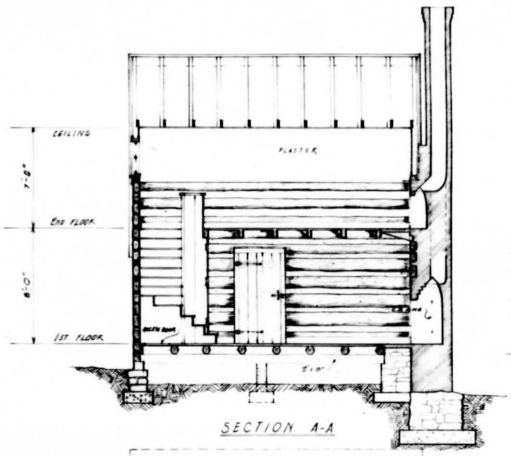
A second copy of the P. C. Hubard drawing, executed in 1893, with annotations by Ragland Featherston in 1940. The location and dimensions of the Kitchen are shown on this drawing.

Original drawings on file ACHNHP

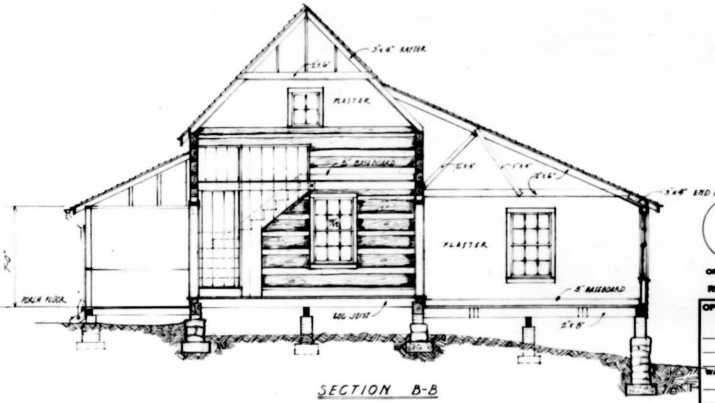

main St.
North
90'-6"
Locust
129'
Locust
43 feet
Locust
Locust
Well
stumps now
Cherry tree stump now
Still here
cedar tree
Locust tree
Stump
Stump
Fence
Steps to the brick floor under porch.
Steps
Fence
Porch (Wood)
41ft.
Slope bricked to prevent washing
Ice Ho. (wood)
House (Brick)
50'
14'
32'
Honey Locust
add steps from Fletcher photo
Weather-boarded 2-17-93
Sided Up and down
Wartime smoke house and other house
privy
Window
20'
Door
Log. Ho. (Wood)
had upstairs
shed (wood)
Stable for feeding
Two story building and leanto, wartime.
Stable with two stalls (Put up by Ragland)
19½ feet
Wartime Log Cabin for slaves.
Porch
37'-4"
Store (Wood)
open shed
orchard
Cross St.
Hancock Specifications
1



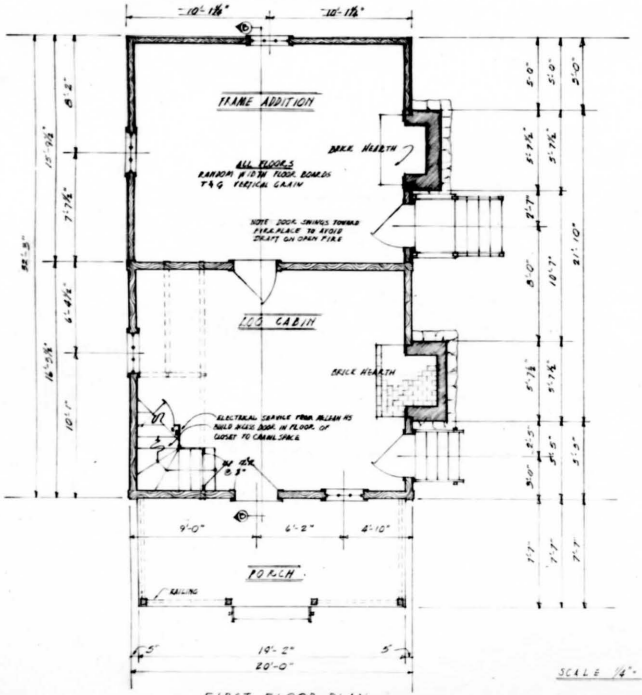
NORTH ELEVATION



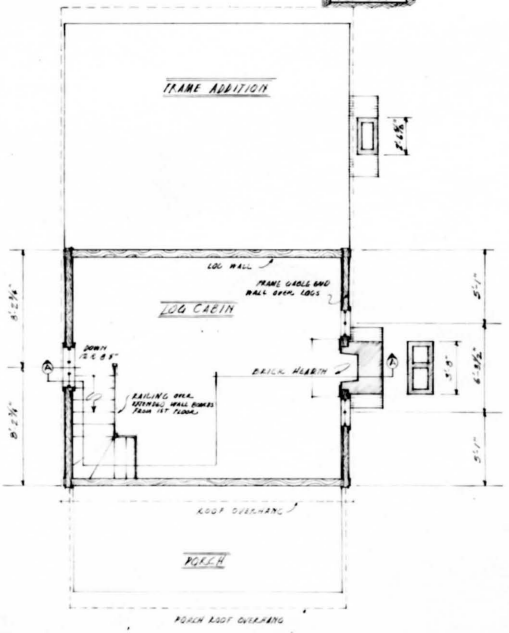
SECTION A-A



SECTION B-B

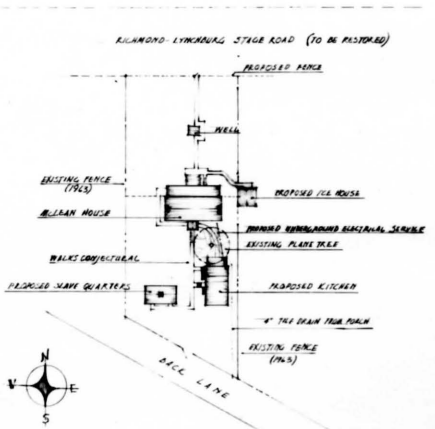


FIRST FLOOR PLAN



SECOND FLOOR PLAN

SCALE 1/4"= 1'-0"



SITE PLAN

SCALE 1"= 50'

PRELIMINARY DRAWINGS

SCALE AS SHOWN

BASIC DATA

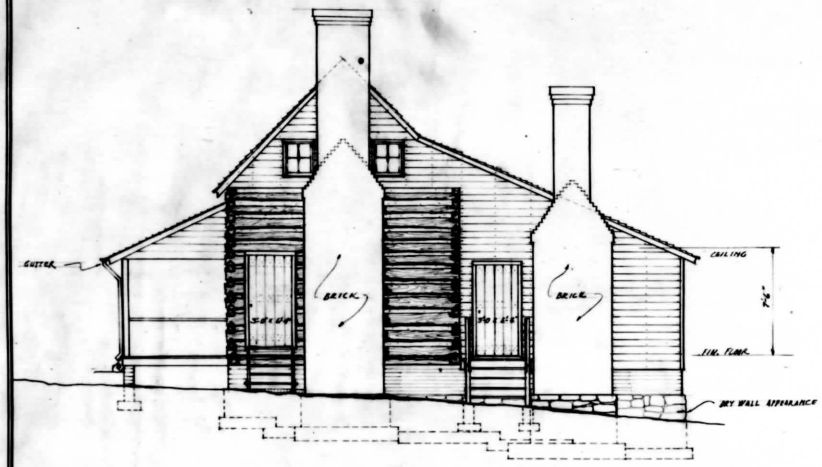
PROPOSED KITCHEN RECONSTRUCTED ON SITE OF EXISTING CA. 1845 FOUNDATION - APPOMATTOX COUNTY - VIRGINIA

RECOMMENDED	DATE
CHIEF, DSDC	
SUPERINTENDENT - ACHP	
REGIONAL DIRECTOR - SOUTHEAST REGION	
APPROVED	

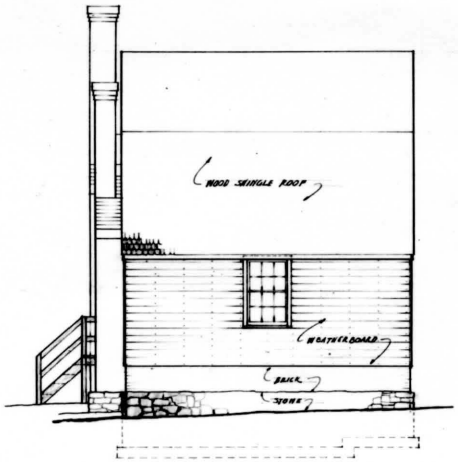
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DIVISION OF DESIGN AND CONSTRUCTION
EASTERN OFFICE

RECONSTRUCTION OF MILLER HOUSE KITCHEN
TYPE OF STRUCTURE
VILLAGE AREA
LOCATION WITHIN THE PARK
APPOMATTOX COURT HOUSE NATIONAL HISTORICAL PARK
NAME OF PARK

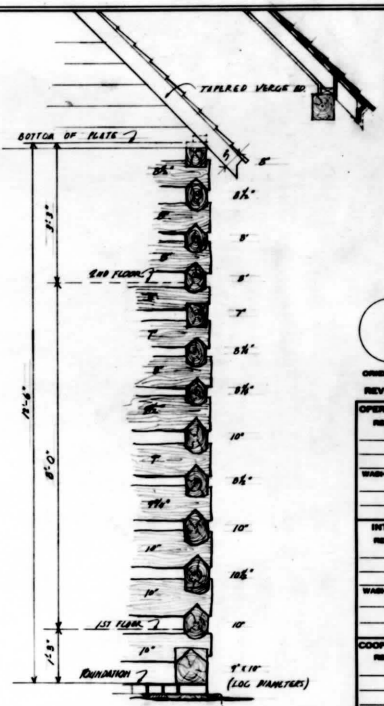
ORIENTATION REVIEWED	
OPERATIONS REGION	
WASHINGTON	
INTERP. REGION	
WASHINGTON	
COOP. ACTV. REGION	
WASHINGTON	
DES. & CONST. STERN	
A.	
E.	
L.A.	
WASHINGTON	
A.	
E.	
L.A.	
OTHER	
PREPARED	
CAREFUL	
DRAWN	M.A. JUDD
CHECKED	
REVISED DATE / INITIAL	
REGION	SOUTHEAST
PCP	8-12-2
SHEET	1 OF 2
DRAWING NO.	NHP 2CH 3022
DATE APPROVED	



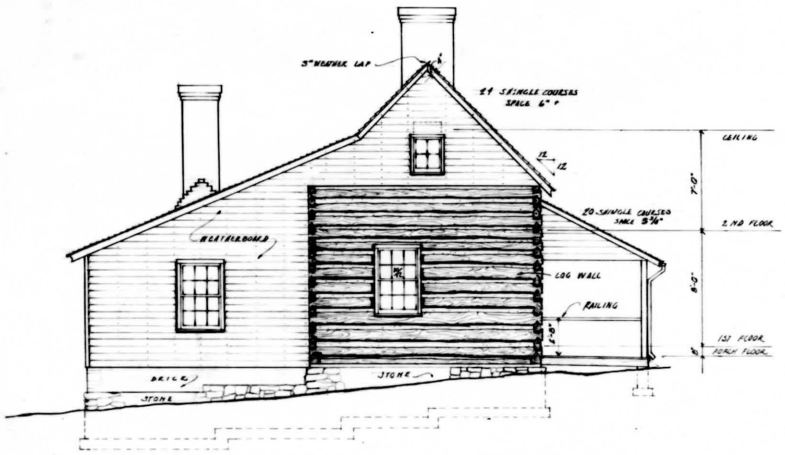
WEST ELEVATION



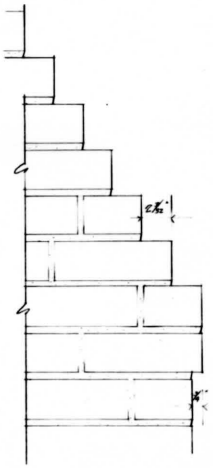
SOUTH ELEVATION



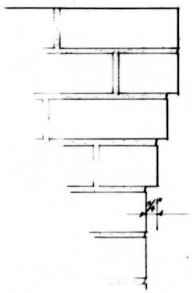
NORTH EAST CORNER OF LOG CABIN
SCALE 3/8"=1'-0"



EAST ELEVATION



CHIMNEY SET-OFF (NORTH)
SCALE 3"=1'-0"



CHIMNEY CAPS
SCALE 3"=1'-0"

BASIC DATA
PROPOSED KITCHEN RECONSTRUCTED ON SITE OF EXISTING CA 1848 FOUNDATION -- APPOMATTOX COUNTY - VIRGINIA

PRELIMINARY DRAWINGS

SCALE AS SHOWN

RECOMMENDED

APPROVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DIVISION OF DESIGN AND CONSTRUCTION
EASTERN

RECONSTRUCTION OF McLEAN HOUSE KITCHEN
TYPE OF DRAWING: VILLAGE AREA
LOCATION WITHIN AREA
APPOMATTOX COURT HOUSE NATIONAL HISTORICAL PARK
STATE OF VIRGINIA

ORIENTATION REVIEWED
OPERATIONS REGION
WASHINGTON
INTERP. REGION
WASHINGTON
COOP. ACTV. REGION
WASHINGTON
DES. & CONST. STAFF
A.
E.
L.A.
WASHINGTON
A.
E.
L.A.
OTHER
PREPARED CARROLL
RECOMMENDED CARROLL
APPROVED
M.A. JOOD
CHECKED
REVISED
DATE | INITIAL
REGION SOUTHEAST
PCD D-11-2
SHEET 2 OF 2
DRAWING NO. NHP. ACH 3022
DATE 1/20/61