

HISTORIC STRUCTURES REPORT
PART I
ARCHITECTURAL DATA SECTION
ON THE
BARN AT GLENMONT
Edison National Historic Site

Prepared by
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Architect
May 1965

for

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

HISTORIC STRUCTURES REPORT

PART I

ARCHITECTURAL DATA SECTION

ON THE

BARN AT GLENMONT

Edison National Historic Site

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

RECOMMENDED

Superintendent

Date _____

Robert H. Hall
Chief, EODC

Date 5-19-65

Regional Director, Northeast Region

Date 7-21-65

APPROVED

Director

Date 8-10-65

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I. FOREWORD

The barn is not readily visible to the visitors to Glenmont. It is located on the north boundary of the property and is concealed by a screen of large evergreen trees.

The actual building date is not presently known. It is hoped that future historical research may produce documentary evidence of the original structure. It appears to have been built in the same era as the mansion it served. Glenmont was built in 1880 and it is logical to assume that horses and carriages, and consequently a stable, were a necessary adjunct to the large house.

The barn was originally erected on the site of the present garage. When Thomas Edison built the monolithic concrete garage in 1908 the barn was moved to its present site in the service area, east of the greenhouse and gardener's cottage.

The construction of the barn indicates a change in the plan and orientation of the structure, probably at the time of the moving and at a time when horses and carriages were replaced by automobiles.

In the 1920's one section of the interior was adapted as a cow stable and the shed added to the inside corner of the ell for calves.

The Glenmont barn is in good physical condition, except for lack of foundations under the calf shed and chicken house.

Norman M. Souder
Architect
May 1965

II. EXISTING CONDITIONS - EXTERIOR

A. Walls

The Victorian style barn is basically an L-shaped structure, 51'-7" x 42'-6". The structure is wood frame on a concrete foundation. It is one story high with a loft over the main portion.

The exterior siding is a combination of bevel siding with 4-1/2" exposure and wood shingles with a 6" exposure. The siding is placed on the lower portion and the shingles in the gables and over a flat trim strip on the long sides. The flat trim is placed to form a decorative treatment at the corners and window heads. The east face has a series of eight panels of drop siding, separated by flat trim, located between the window and door heads of the first floor and the sill of the loft door.

The corner trim, division boards and skirting boards are placed on the same plane, dividing the wall areas into panels.

The calf shed which was the latest addition is sided in vertical boarding of varying widths and types. No effort was made to match the architectural treatment of the main structure.

The entire structure is painted dark green, causing it to blend with the grouping of evergreens which surround it.

B. Roof

The roofing of the barn is slate and the present roof of

the calf shed is covered with roll roofing. The present slate roofing dates to the moving of the barn to its present site. In the chicken house two former triple skylights in the long west slope of the roof were closed up when the building was moved. Mr. Hallstrom, the Edison's gardener, explained that the skylights faced south when the building was in its original location, thus providing additional light in the chicken house interior in winter months.

When the interior was adapted for the housing of cows, the modern metal ventilator was installed on the center of the ridge of the main section.

The cornices are Victorian with an overhang on the gables ornamented with a combination of fascia board and typically Victorian mouldings. The eave sides of the building are ornamented with false rafters on fifteen inch centers. The ends of the rafters are trimmed with decorative concave cuts.

Recent repairs to the roof include a new moulded metal ridge superimposed on the slate roof in a manner similar to the ridge treatment on the house at Glenmont.

C. Fenestration

1. Windows

Most of the windows in the barn are typically Victorian. The sash, most of which is obviously original, consists of twelve

six inch by nine inch panes. The sash is either hinged or fixed and on the south wall of the feed room is arranged as double hung sash. In the chicken house wing the sash are arranged in groups of three and in other areas are used as single and double windows.

The 1920 period alterations included three new bottom-hinged sash with large panes set into the south wall. The west wall of the calf shed also has two later period sash consisting of nine large lights.

2. Doors

The exterior doors are varied in type and size, but are of the same general design. On the east side there are a pair of sliding doors, a single door to the entry and a pair of hinged doors at the loft level. All are heavily constructed doors with panels of narrow beaded boards set diagonally. The original treatment had three-quarter round moulding outlining the panels. Where the stiles and rails have been repaired the mouldings were replaced with the bevelling of the replacements.

The upper panels of the sliding doors are fitted with the twelve light sash typical of the building. Both loft doors have nine inch by eleven inch glass set in the upper vertically boarded panels.

The two doors on the west side, one opening from the cow

4.

stable to the open shed, and the other from the calf shed are two swing doors. Both sets of doors have diagonally boarded panels.

The interior of the open shed on the west end of the barn is lined with flush siding similar to the interior treatment of the barn.

III. EXISTING CONDITIONS - INTERIOR

A. Plan

As has been noted, the basic plan of the barn is in the shape of an "L". The main portion placed approximately on an east-west axis, houses an entry, feed room, cow stable and open shed. The wing extending to the north on a line with the east wall contains a pony stable and chicken house.

The presence of several posts with quadruple reeded decorations about five feet above the floor line gives rise to the speculation that the plan is changed from the original. The wood columns were obviously designed to be in full view, but in their present locations are partially concealed by partitions. It is not possible nor practical at this time to do a thorough architectural investigation to determine the original layout.

B. Floors

The floors in the barn are concrete or earth, depending upon the use of the area. Concrete is used in all areas except the chicken house, calf shed and the open shed.

The flooring in the cow stable is on various levels and contains a feeding trough and drainage gutter. The area between the stanchions is paved with brick. The concrete aisle on the south side of the stanchions is approximately fourteen inches above the

aisle on the north side. The two aisles are joined by a concrete ramp on the west wall. The sixteen inch gutter is bridged at the base of the ramp by a finely designed cast iron plate in a raised fleur-de-lis pattern.

C. Walls and Ceiling

The interior walls and ceilings throughout the first floor are sheathed with flush board siding. In some cases beaded edge boards are used. The entry, in addition to the siding, has a chair rail high wainscot trimmed with a heavy moulding of multiple beading.

The interior siding is painted white and in the stables and chicken house whitewash was applied over the paint.

D. Interior Features

1. Chicken House

The chicken house end of the building is now used for storage. There were formerly four openings to the chicken runs located under the centers of the triple windows on the east and west walls. These openings were later covered on the exterior by skirt boards. The two ranks of triple skylights in line with triple windows on the west wall were covered when the barn was moved to its present site. However, they are still visible on the interior.

The two ranks of triple window openings are presently covered with wire screens. Marks on the jambs and head show that

sash were once used in these openings similar to the windows on the north and west walls.

2. Pony Stable

The pony stable, entered from the exterior by the sliding doors, is a room housing both a carriage and the pony. The stall, located in the northwest corner, is sided with a wood wainscot surmounted by an elaborate cast iron screen. The newel at the end of the stall is capped by a cast iron finial. The manger is a quarter circle of cast iron rods. The concrete floor in the stall is covered with a sturdy wood slatted duckboard. A shallow gutter runs from the stall area into a floor drain near the center of the room. The former sash in the double window on the west wall are no longer in place. They appear to have been re-used in the construction of the north wall of the calf shed. A long, narrow, re-used window sash of unknown origin is located in the north wall above the stall to provide borrowed light from the chicken house.

3. Feed Room

The feed room to the left of the entry is lighted by a single hinged sash on the east wall and a double hung sash on the south wall. The unusual feature in this room is the twenty inch concrete riser to the narrow door opening on the feeding aisle in the cow stable. A wood, slatted gate is hung at the opening between

the entry and feed room in lieu of a door.

4. Cow Stable

The unusual arrangement of floor levels has been described in Section III B, Floors. This modern system was introduced in the 1920's when the commercially produced pipe stanchions were installed. Each of the three stanchions is equipped with automatic water fountains. At the same time the small louvers and the three top opening windows were added. A built in ladder attached to the west wall is the means of access to the loft area.

A large door to the open shed is located on the west wall and another to the calf shed is on the north wall.

The doors on the east wall are the six panel type commonly used in houses at the turn of the century.

5. Calf Shed

The comparatively rude construction of the calf shed is exposed on the interior. The sill plates are resting directly on grade and are in a decayed condition. The clapboard sidewalls of the barn structure are also exposed in the shed.

6. Loft

The long narrow loft is lighted by a window in the west gable and the two small lights in the doors in the east gable. It is floored in wide boards. The rafters and roof sheathing are

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exposed as are the outlookers which form the decorative rafter ends on the exterior.

A metal duct from the roof ventilator follows the sloping roof line to the floor at the north wall. The duct ends at a ceiling grille in the cow stable below. The roof is framed with vertically sawn two by six inch rafters (full dimension) placed on twenty and one-half inch centers. The rafters are attached to a 2-1/4 inch by 9 inch ridge pole.

7. Utilities

Electrical wiring and water pipes were installed in the barn in Edison's time, but in recent years have been disconnected since the barn is now used only for storage of momentos and miscellaneous materials.

IV. RECOMMENDATIONS

As has been noted in the foreword of this report, the building is in good physical condition except for the following:

1. The sill plates in the chicken house and calf shed have deteriorated from long contact with the ground. It will be necessary to remove the siding and plates and elevate the buildings to correct the sag.

2. New concrete foundations and sill plates will be required on the north and west walls of both the chicken house and calf shed. When this is completed matching siding and repairs will be required at the grade level.

3. To protect the interior of the building it would be advisable to replace the six sash missing on the east side of the chicken house with sash matching the 12 light sash in the remainder of the building.

4. In the process of repairing the barn the three quarter round mouldings on the door panels should be replaced.

COST ESTIMATE

Carpentry

Labor.....	\$2,000.00
Material.....	500.00
Millwork.....	350.00

Masonry

Labor.....	1,800.00
Material.....	375.00

Painting

Labor.....	900.00
Material.....	<u>150.00</u>

TOTAL	\$6,075.00
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ILLUSTRATION NO. 1

The east, or front, of the Glenmont Barn. The entrance is on the left. The double sliding doors open into the pony stable. The two banks of screened openings on the right are part of the chicken house portion of the barn. Note the decorative treatment of the main building at the right with clapboard panels and shingle above at the loft level.

Photo: National Park Service
Gordie Whittington, April 1965

EODC Neg. No. 124.74



ILLUSTRATION NO. 2

The northwest corner of the chicken house wing showing the unequal roof pitches and change in the exterior treatment levels. The stone fence against the building is the north property line and a factor in the decay of the sill plate.

Photo: National Park Service
Gordie Whittington, April 1965

EODC Neg. No. 124.75



ILLUSTRATION NO. 3

West elevation of the chicken house and calf shed. These sides of the buildings have no foundations and as a result the sill plates have decayed causing settling which can be seen in the sagging eave line. It is this area and the north side of the chicken house shown in Illustration No. 2 that will require a new concrete foundation. The long slope of the chicken house roof at the left has two skylights composed of three sections each, now covered by the slate roofing.

Photo: National Park Service
Gordie Whittington, April 1965

EODC Neg. No. 124.76



ILLUSTRATION NO. 4

The northwest corner of the main section showing the open shed. The wide, light painted door leads to the cow stable. The double window in the gable lights the long narrow loft. Note the quadruple beading on the post at the corner. This feature also appears on several of the post on the interior of the building suggesting a possible change in the plan when the building was moved from its original site to the present location.

Photo: National Park Service
Gordie Whittington, April 1965

EODC Neg. No. 124.77

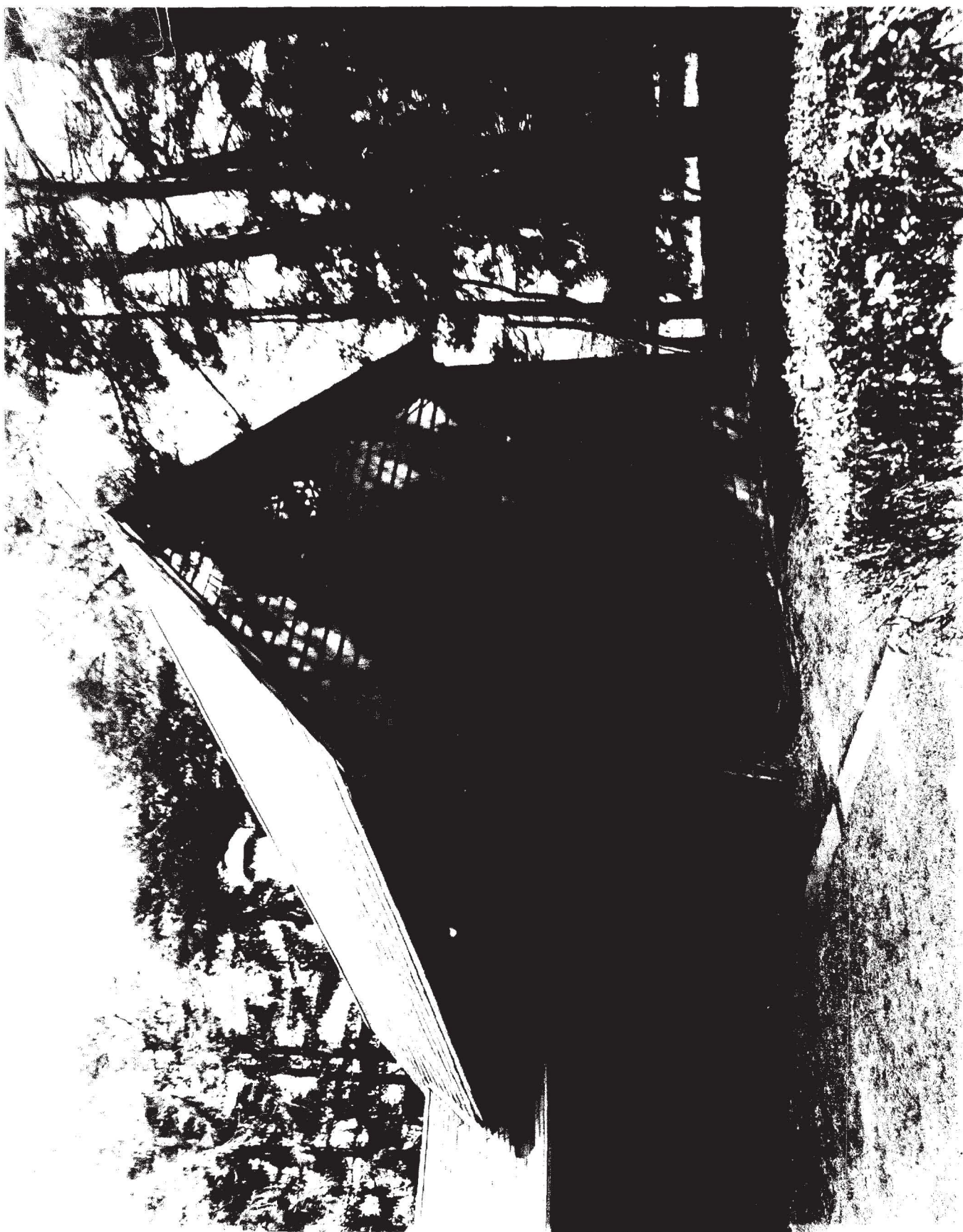


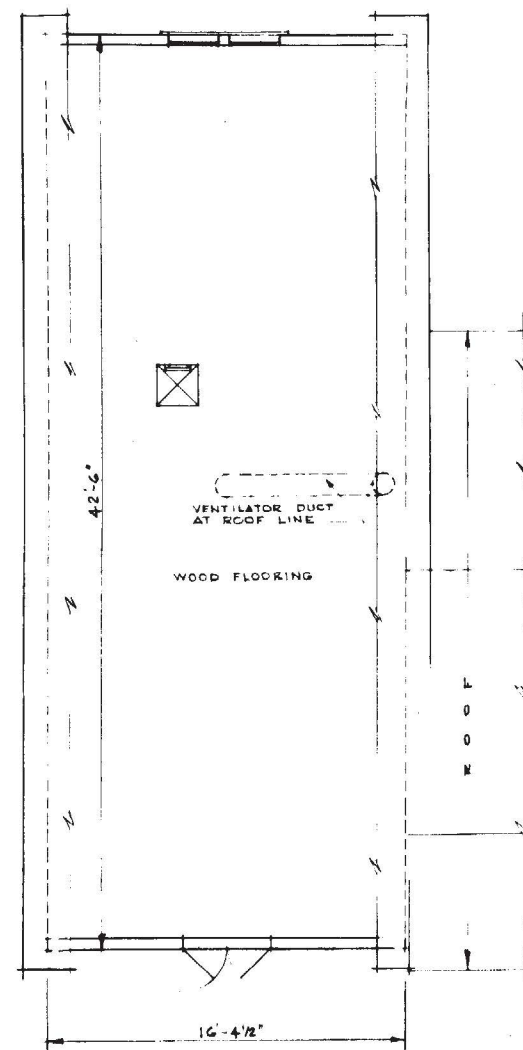
ILLUSTRATION NO. 5

The south side of the barn showing the three later windows in the cow stable. An earlier double hung window on the right is obscured by the trunks and shadows of the trees planted to screen the barn from view.

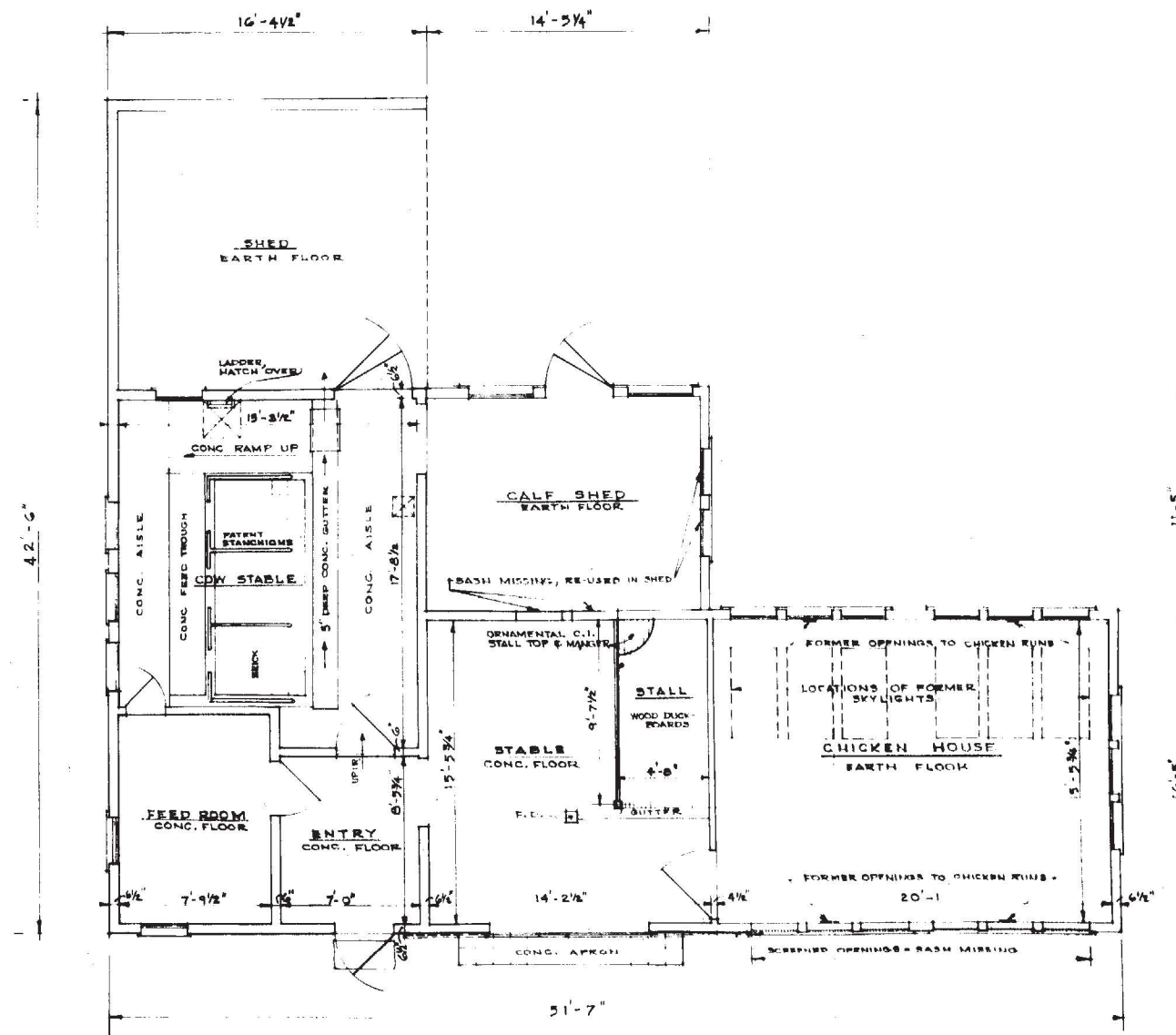
Photo: National Park Service
Gordie Whittington, April 1965

EODC Neg. No. 124.78





LOFT PLAN
SCALE - 1/4" = 1'-0"



FLOOR PLAN
SCALE - 1/4" = 1'-0"



ORIENTATION

PREPARED

DESIGNED

ADJUDIC

DRAWN

CHECKED

DATE

INITIAL

REVISED

REGION

NORTHEAST

PCP NO.

SHEET 1 OF 2

DRAWING NO.

DATE

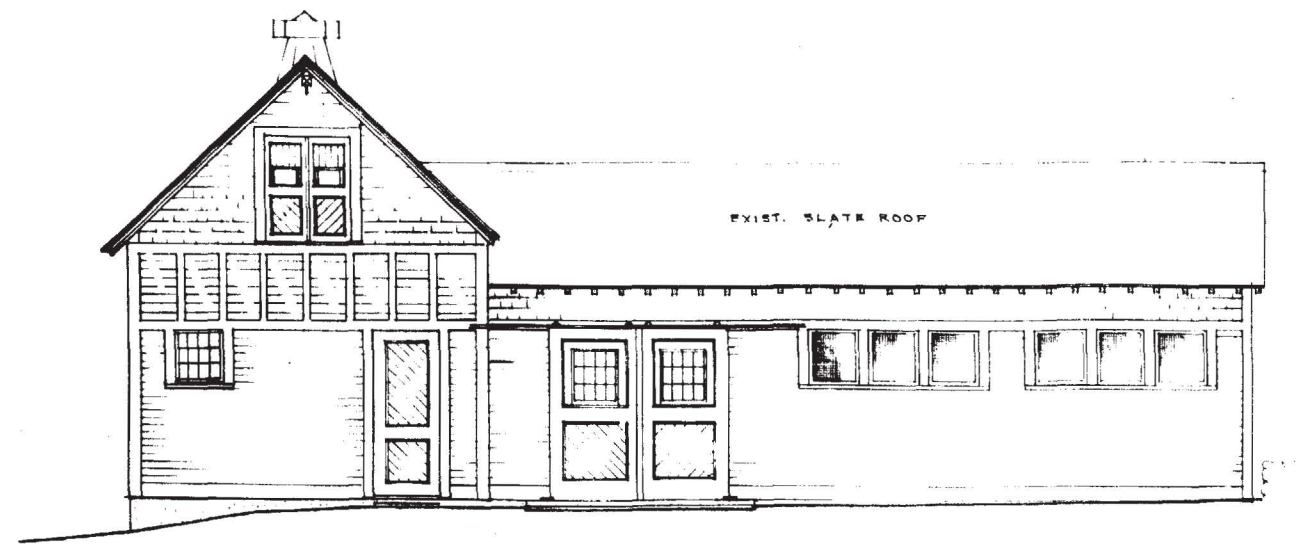
SCALE

DATE

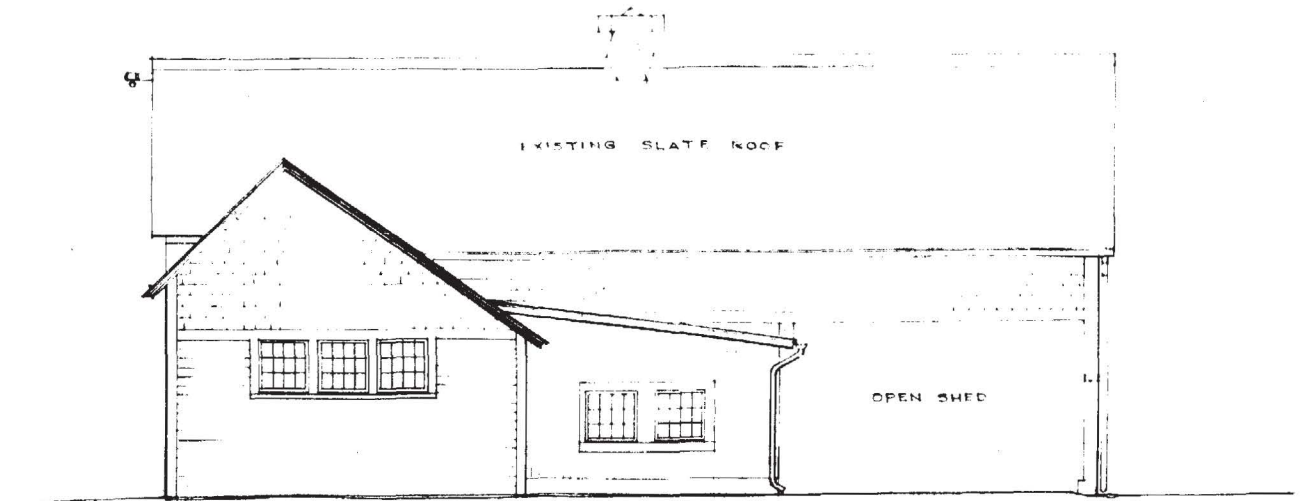
RECOMMENDED

APPROVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DESIGN AND CONSTRUCTION
PREPARED BY
EASTERN
DIVISION
FLOOR PLAN
TITLE OF DRAWING
PARN AT GLENMONT, HOME OF THOMAS A. EDISON
LOCATION WITHIN PARK
EDISON NATIONAL HISTORIC SITE
NAME OF PARK



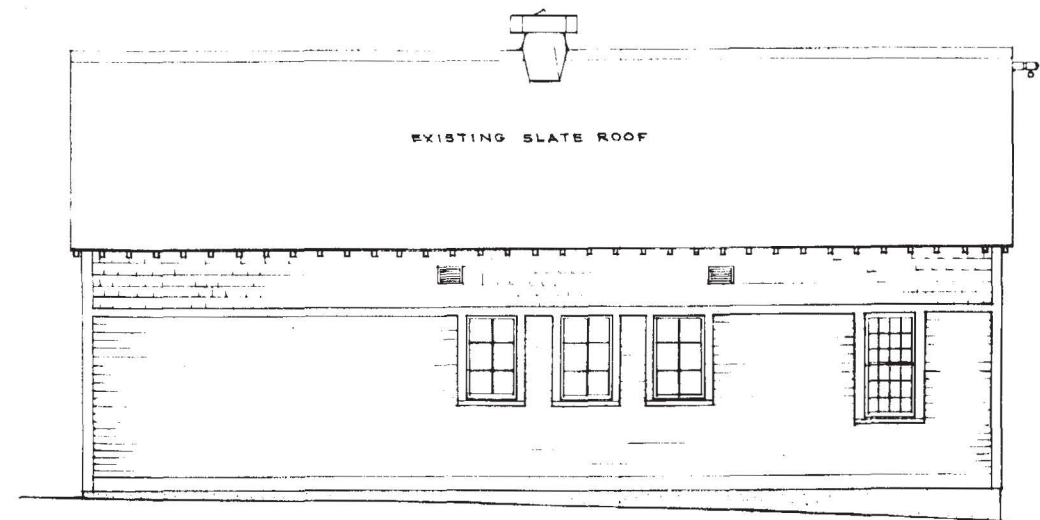
EAST ELEVATION
SCALE - 1/4" = 1'-0"



NORTH ELEVATION
SCALE - 1/4" = 1'-0"



WEST ELEVATION
SCALE - 1/4" = 1'-0"



SOUTH ELEVATION
SCALE - 1/4" = 1'-0"