

HISTORIC STRUCTURES REPORT

403/D-13A

PART I

GARDENER'S COTTAGE & POTTING SHED, BLDG. #11
GREENHOUSE, BLDG. #14

EDISON NATIONAL HISTORIC SITE

EDIS-018
CRBIB# 010461

August-October 1964

STATUS OF HISTORIC STRUCTURES REPORT

EDISON

PARK

Gardener's Cottage & Potting Shed (#11)
Greenhouse (#14)

STRUCTURE/BUILDING #

PART I

PROJECT: Stabilization

CLASS

BB

MASTER PLAN

PCP

PROGRAMMED

B-16 (#11)
B-17 (#14)
410,240 (1.)
45,100 (14)

1965 F.Y. (both)

SECTIONS:

Admin.

Called for 8/17/64
Due 10/12/64
Rec'd 10/18/64

His.

Called for 8/17/64
Due 10/12/64
Rec'd 10/18/64

Architecture

Called for _____
Due _____
Rec'd 8/14/64

Called for _____
Due _____
Rec'd _____

Called for _____
Due _____
Rec'd _____

DISTRIBUTED

Park
EODC 10/27/64 (Admin & Hist.)
Region 11/10/64
WASO 12/2/64

REVIEWED

Park
EODC 11/6/64
Region 11/30/64
WASO 11/30/64

APPROVED:

Region
WASO 12/22/64

E10-124
MR

MAR 8 1965

Nelly
3/8

Memorandum

To: Chief, EDC

From: Acting Regional Director, Northeast Region

Subject: Historic Structures Reports, Edison NIS

Since Part I Historic Structures Reports for the following structures at Edison NIS are reasonably complete and sufficient for the project involved in each, it is agreeable to this office that Historic Structures Reports, Part II, be waived:

✓ Gardener's Cottage and Potting Shed (13)	Building #11
✓ Greenhouse (13)	" #14
✓ Horse House (13)	" #16
✓ Pump House (13)	" #17
✓ Blacksmith Shop (13)	" #7

George A. Palmer

MHNelligan/gmf
General
Daily
Area

cc:
Director
Superintendent, Edison
Mr. Whitcraft



IN REPLY REFER TO:

H30-DCA

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Edison National Historic Site
P. O. Box 126
Orange, New Jersey 07051

December 28, 1964

Northeast Region		Initial and Date
REC 29	1964	
Reg. Director		
Asst. to PD (PA)		
Asst. to RD (Dev. L)		
Resource Studies Adv.		
Asst. to Dir. Adm.		
Finance & Prop.		
Personnel		
Programs		
Asst. Reg. Dir.-Oper.		
Interp. & VS		
Land & Water		
Maintenance		
Master Plan Coord.		
Res. Manage. & VP		
Asst. Reg. Dir.-Co-Act		
Fed'l Agency Assis.		
NPS Studies		
State Forest		

Memorandum

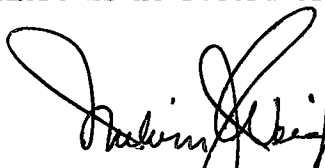
To: Regional Director, Northeast Region

From: Superintendent, Edison

Subject: Historic Structures Report, Part I, Gardener's Cottage and Potting Shed, and Greenhouse, Edison

We have received a copy of Mr. Jensen's memorandum to you of December 22 stating that the interested divisions in Washington have reviewed the subject report and "concur with the recommendations stated in Dr. Nelligan's December 2 memorandum," and that he, Mr. Jensen, had approved the report that date.

We will appreciate your sending us two copies of Dr. Nelligan's memorandum as above, since there is no record of any having been received in this office.


Melvin J. Weig
Superintendent

*Sent 1/12
(copy orig. dir. to Edison)*

In duplicate



IN REPLY REFER TO:

H30-DCA

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

DEC 22 1964

Memorandum

To: Regional Director, Northeast Region

From: Assistant Director, Design and Construction

Subject: Historic Structures Report, Part I, Gardener's Cottage, and Potting Shed, and Greenhouse, Edison

The interested divisions have reviewed the subject report and concur with the recommendations stated in Dr. Nelligan's December 2 memorandum. I have approved the report this date.

J. E. N. Jensen

cc:
Chief, EODC (2)
Superintendent, Edison

Northeast Region		Initial
DEC 23 1964		Date
✓	Asst. Dir. (Gen. Inv.)	
	Asst. Dir. (Adm. Serv.)	
	Asst. Dir. (Ext. Affs.)	
	Asst. Dir. (Fin. & Pers.)	
	Asst. Dir. (Gen. Inv.)	
	Asst. Dir. (Inter. & VS)	
	Asst. Dir. (Land & Water)	
	Asst. Dir. (Maintenance)	
	Asst. Dir. (Spec. Inv. Coord.)	
	Asst. Dir. (Tech. & VP)	
	Asst. Reg. Dir. - Co-Act	
	Fed'l Agency Assis.	
	NPS Studies	
	State Assistance	

Posted
Inf

DEC 2 1964

HIO-EMA
MEM

*Posted
Gmf 1/4*

Memorandum

To: Director

From: Resource Studies Advisor, Northeast Region

**Subject: Historic Structures Report, Part I, Garndner's
Cottage and Potting Shed (Building #11), and
Greenhouse (Building #14), Edison NRE**

The subject report was reviewed by Regional Director Ronald F. Lee,
November 30, 1964, and is recommended for approval.

Murray H. Nelligan

Murray H. Nelligan

Enclosure

cc:
Chief, NRE
Superintendent, Edison
Programs (Att: Mr. Monteleone)

MHNelligan/gmf
General
Daily
Area

HISTORIC STRUCTURES REPORT, PART I, GARDENER'S COTTAGE & POTTING SHED (BLDG. #11),
& GREENHOUSE (BLDG. #14), EDISON NHS

REVIEW SHEET

1. MR. LUKENS

Recommend Approval,
JBL 11/10

2. MR. GOLUB

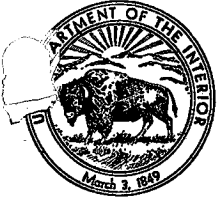
OK - J 11/13

3. MR. BARNES

True report.
Agree with recs made
TB

4. DR. NELLIGAN

Recommend WBS



IN REPLY REFER TO:

H30-H

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Eastern Office, Design and Construction
Philadelphia, Pa. - 19106

November 6, 1964

Northeast Region		Initial and Date
NOV 9 1964		
Reg. Director		
Asst. to RD (PA)		
Asst. to RD (Dev. L)		
Resource Studies Adv.		
Asst. Dir. Adm.		
Finance & Prop.		
Personnel		
Programs		
Asst. Dir. Oper.		
Interp. & VS		
Land & Water		
Maintenance		
Master Pl. Coord.		
Res. Mgmt. & VP		
Asst. Reg. Dir. Co-Act		
Fed'l Agency Assis.		
State Assistance		

Memorandum

To: Regional Director, Northeast Region

From: Chief Architect, EODC

Subject: Historic Structures Report, Part I, Greenhouse (Building #14), BB, and Gardener's Cottage and Potting Shed (Building #11), BB, Edison

The Administrative and Historical Data Sections of the subject report have been recommended for approval by Chief Hall, EODC, this date. The Architectural Data Section was recommended by Chief Hall and forwarded to you on August 12, 1964.

We concur with the recommendations as outlined in the Administrative Section to rehabilitate the heating and electrical systems in addition to the recommendations contained in the Architectural Data Section. Specific recommendations for this and the other work outlined in this report will be made in a Part II Report.


Robert E. Smith

cc:

Assistant Director, Design and Construction
Superintendent, Edison

*Posted
Inf*

H30-RHA
NER

OCT 27 1964

Memorandum

To: Chief, EODC

From: ^{Acting} Regional Director, Northeast Region

Subject: Historic Structures Report, Part I, Greenhouse (Building #14), BB, and Gardener's Cottage and Potting Shed (Building #11), BB, Edison NHS

Enclosed are the Administrative and Historical Data Sections of the subject report to be combined with the Architectural Data Section previously furnished by your office.

Please let us have your comments on the complete report at your earliest convenience.

George A. Palmer

Enclosure

cc:
Superintendent, Edison
Mr. Whitcraft

GMFraneys
General ✓
Daily
Area

Franeys
10/26

Nell
10/26

Posted
Inf



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

IN REPLY REFER TO:

Edison National Historic Site
P. O. Box 126
Orange, New Jersey 07051

October 7, 1964

H30-RHA
NER

Memorandum

To: Regional Director, Northeast Region

From: Superintendent

Subject: Historic Structures Report, Part I, Administrative, Historical, and Architectural Data Sections, Greenhouse, Building No. 14, and Gardener's Cottage and Potting Shed, Building No. 11

As requested by your subject memorandum dated August 17, 1964, we submit herewith the original and two copies of the Administrative and Historical Data sections for the above report. Routing, title, and contents sheets have been provided for the report as a whole, to include the Architectural Data in final assembly.

Both Exhibits Specialist (Restoration) Whittington and the writer have reviewed with Supervisory Architect Judd the Architectural Data section as prepared by Architect Souder, EODC. This section has our concurrence in the recommendations there included, but it is felt that certain additional work, as set forth in the Administrative Data section herewith, should also be incorporated in this project.


Melvin J. Weig
Superintendent

In duplicate

Enclosures

Northeast Region		Initial and Date
OCT 8 1964		
Reg. Director		
Asst. to RD (PA)		
Asst. to RD (Dev. L)		
Resource Studies Adv.		
Asst. Reg. Dir. Adm.		
Finance & Prop.		
Personnel		
Programs		
Asst. Dir. for Oper.		
Inter. Aff.		
Land & Water		
Maintenance		
Asst. to Dir. for		
Public Affairs		

*Posted
Jmf*

Edison National Historic Site
P. O. Box 126
Orange, New Jersey 07051

H30-RHA
NER

October 7, 1964

Memorandum

To: Regional Director, Northeast Region

From: Superintendent

Subject: Historic Structures Report, Part I, Administrative, Historical, and Architectural Data Sections, Greenhouse, Building No. 14, and Gardener's Cottage and Potting Shed, Building No. 11

As requested by your subject memorandum dated August 17, 1964, we submit herewith the original and two copies of the Administrative and Historical Data sections for the above report. Routing, title, and contents sheets have been provided for the report as a whole, to include the Architectural Data in final assembly.

Both Exhibits Specialist (Restoration) Whittington and the writer have reviewed with Supervisory Architect Judd the Architectural Data section as prepared by Architect Souder, EODC. This section has our concurrence in the recommendations there included, but it is felt that certain additional work, as set forth in the Administrative Data section herewith, should also be incorporated in this project.

(Sgd.) Melvin J. Weig

Melvin J. Weig
Superintendent

In duplicate

Enclosures

GMFraneys 8/17

*Posted
Gmf*

~~H30-2MA~~

~~MEK~~

AUG 17 1964

Memorandum

To: Superintendent, Edison

From: Regional Director, Northeast Region

**Subject: Historic Structures Report, Part I, Architectural
Data Section, Gardener's Cottage, Potting Shed and
Greenhouse, Edison NJS**

**Enclosed is a copy of the Architectural Data Section for the
subject report.**

**Please prepare the Administrative and Historical Data Sections
and forward three copies to this office by October 12.**

(Sgd.) Ronald F. Lee

Enclosure

**cc:
Chief, EODC**

**GMFraneys ✓
General
Daily
Area**



IN REPLY REFER TO:

H30-H

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

Eastern Office, Design and Construction
Philadelphia, Pa. - 19106

August 12, 1964

Northeast Region		Initial and Date
	Reg. Director	
	Asst. to R. (PA)	
	Asst. to R. (Dev. L)	8/13
	Resource Studies Adv.	
	Asst. Dir. Adm.	
	Finance & Prop.	
	Personnel	
	Programs	
	Asst. Dir. Oper.	
	Interp. & VS	
	Land & Water	
	Maintenance	
	Public Plan Coord.	
	Rec. Mgmt. & VP	
	Asst. Dir. Tech. Serv.	
	Facilities Mgmt.	

Memorandum

To: Regional Director, Northeast Region

From: Chief Architect, EODC

Subject: Historic Structures Report, Architectural Data Section,
Part I, Gardener's Cottage, Potting Shed and Greenhouse,
Edison

Enclosed for your review and distribution are three copies of the
subject report which was recommended by Chief Hall this date. A
copy has been retained by this office.

Robert E. Smith
Robert E. Smith

Enclosure

cc:
Assistant Director, Design and Construction
Superintendent, Edison

HISTORIC STRUCTURES REPORT - PART I
GREENHOUSE, BUILDING NO. 14, AND
GARDENER'S COTTAGE AND POTTING SHED, BUILDING NO. 11

Prepared by

Melvin J. Weig
Superintendent

Benjamin Levy
Supervisory Historian

Arthur Spiegler
Historian

and

Norman M. Souder
Architect

August-October 1964

APPROVAL SHEET

Recommended Melvin J. Neig Date 10/8/64
Superintendent

Recommended Robert G. Hall Date 11/6/64
Chief, EODC

Recommended Ronald F. Lee Date 11/30/64
Regional Director

Approved J. E. H. Jensen Date 12/22/64
Assistant Director, Design & Construction

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Prepared by Norman M. Souder, Architect, EODC, August 1964	1 and 1-6

HISTORIC STRUCTURES REPORT - PART I

GREENHOUSE, BUILDING NO. 14, AND
GARDENER'S COTTAGE AND POTTING SHED, BUILDING NO. 11

"ADMINISTRATIVE DATA"

Prepared by

Melvin J. Weig
Superintendent

October 7, 1964

Administrative Data

The Historical Data section of this report reveals that the Greenhouse, Building No. 14, and the Gardener's Cottage and Potting Shed, Building No. 11, were apparently built on the Glenmont grounds by Thomas Alva Edison in 1908, and from that time forth were used for various horticultural purposes, including provision of fresh flowers for the Edison Home and floral enhancement of the Edison estate in Llewellyn Park, West Orange, New Jersey. That section of this report also traces what is known about an earlier greenhouse complex at the same location, and in addition goes into various changes which have taken place in the existing structures up to the present time.

As described in the Architectural Data section of this report, both these historic structures are now in need of repair and rehabilitation better to effect their preservation for enjoyment of the public. It is planned to accomplish this work on the Greenhouse under PCP B-17 approved July 6, 1964, total amount \$5,100 (construction only, \$4,200). Work on the Gardener's Cottage and Potting Shed is covered under PCP B-16, submitted May 28, 1964, but not yet approved, total amount \$10,200 (construction only, \$8,500). Both projects are programmed for the 1965 F.Y.

Considered from the administrative viewpoint, it is believed that rehabilitation of the Greenhouse should include the following items:

1. Repairs to the concrete foundations and walls of that portion of the structure built in 1908, including filling of cracks and other defects, and removal and replacement of all deteriorated stucco finish with cement plaster matching the original in color, composition, and texture.
2. Restoring the old walls of the earlier greenhouse or north wing section as they were in 1950, when the main part of the north wing was removed because of its deterioration. This would involve rebuilding a small section of the subject wall at the southeast corner, which section subsequently fell down and was removed. This section of restored wall should be stucco finished and capped against the weather to match the rest of the existing Greenhouse walls.

3. Rehabilitation of the additional low remaining sections of the old greenhouse walls, now used for cold frame purposes, east of the north wing. These walls were originally two bricks wide but in places are now only one brick wide above ground. Many of the bricks are also loose. It is believed advisable to restore these walls to their original two-brick width (but no higher than at present), and to point, stucco, and cap them to match the other Greenhouse walls. New wood topping and partitioning should also be installed at the same time, preferably using lumber pressure-treated with wood preservative to insure longest possible life.
4. Rehabilitation of existing hot water heating piping, some of which is inactive because of leaks, and other parts of which were replaced several years ago (in the Orchid House) with copper tubing and finned radiation.
5. Cleaning, repair, and repainting of metal framework; repair and/or replacement and repainting of all woodwork, including doors, frames, and trim; and reglazing as needed.
6. Addition of aluminum covers for protection of the metal U-sections of the Greenhouse framing, which now have wood glazing fillers exposed to the weather.
7. Installation of safe, adequate electric wiring as replacement for the present inadequate wiring system.
8. Repair and/or replacement of defective drainage, including floor drains and underground drainage piping as necessary.
9. Installation of additional equipment which will make possible automatic opening and closing of the ventilators in accordance with preset temperature and relative humidity settings. These ventilators can now be operated manually only. An automatic system would provide better continuous protection for the contents of the Greenhouse and would also eliminate the necessity for its being constantly attended seven days each week.
10. Repair of all benches and walkways inside the building, as may be necessary.

In the Historical Data section of this report mention is made of projected efforts to determine if the north wing section removed in 1950 can still be found, so that it could be photographed and measured against the possibility of its return and restoration as part of the Glenmont Greenhouse. Such return and restoration would naturally increase the work load of Gardener Hallstrom and his one full-time Laborer assistant, who already have more than enough to do in maintenance and operation of the existing Greenhouse facilities and other work on the Glenmont and Laboratory grounds. Unless Mr. Hallstrom could be assured of additional help, therefore, restoration of the north wing would not be advisable, even if it could be done accurately.

Rehabilitation of the Gardener's Cottage and Potting Shed should be undertaken at the same time as the proposed Greenhouse repairs, and specifically should include the following related items:

1. Repairs to spalled concrete, especially on the cornice, parapet, and coping; and removal and replacement of all deteriorated stucco or concrete finish with cement plaster matching the original finish in color, composition, and texture.
2. Repair and repainting of all woodwork, including windows, doors, frames, etc., and replacement of rotted material wherever found.
3. Chimney repairs, including as recommended in the Architectural Data the insertion of flue liners and fitting the opening around the liner with a waterproof cap.
4. Provision of venting to the space between the second floor ceiling and the roof slab, and increasing the size of the opening under the roof hatchway to provide access to the roof from inside the building, which is not presently possible.
5. Rehabilitation of existing hot water piping, as in Item 4 under the Greenhouse recommendations, and including any required repairs and replacements of the heating boiler installation in the basement.
6. Installation of safe, adequate wiring as replacement for the present inadequate wiring system, all of which, including that of the Greenhouse, is now on a single circuit with attendant fire danger from possible overload.

7. Repair and/or replacement of all defective or inadequate drainage of both storm and sanitary sewer systems.

Rehabilitation of the Greenhouse and the Gardener's Cottage and Potting Shed as proposed will greatly facilitate easier use and operation of these two buildings as part of the historic scene, will reduce annual maintenance costs, and will make it possible to provide improved interpretation for visitors of the horticultural aspects of Edison Family life at Glenmont. Suggested improvements in the heating and electrical systems will provide greater safety, not only for the structures themselves, but also for Service employees and the public.

HISTORIC STRUCTURES REPORT - PART I

**GREENHOUSE, BUILDING NO. 14, AND
GARDENER'S COTTAGE AND POTTING SHED, BUILDING NO. 11**

"HISTORICAL DATA"

Prepared by

**Melvin J. Weig
Superintendent**

**Benjamin Levy
Supervisory Historian**

and

**Arthur Spiegler
Historian**

October 6, 1964

Historical Data

Among the historic structures at Glenmont, the Edison Home estate in Llewellyn Park, West Orange, New Jersey, are the Gardener's Cottage and Potting Shed, Building No. 11, and the Greenhouse, Building No. 14. Closely associated in function and time of erection, they are here considered together in a single report.

Although neither so elaborate nor so pretentious as some American country homes established by the newly rich captains of industry in the boom era which followed the Civil War, this property which Thomas Alva Edison purchased as a wedding present for his second wife, Mina Miller Edison, was nonetheless handsome. In keeping with the spirit of the times, their social and economic position, and in addition their own natural interest and inclination, both the Edisons were much interested in having a ready supply of year-round plants and flowers to embellish the Glenmont residence and grounds. They therefore provided themselves with appropriate facilities for that purpose. Here Mrs. Edison particularly indulged her taste for unusual plants and exotic flowers, and carried on a wide variety of horticultural activities, all of which interest was in course of time passed on to the Edison children in varying degree. Such activities were at first centered in an earlier greenhouse complex, and later in the buildings which are the subject of this report.

Buildings Nos. 11 and 14 are located about 400 feet from the Edison Home across Honeysuckle Lane (see Exhibits 1 and 2). In the present Greenhouse, which is a metal frame structure with concrete supporting walls, there are approximately 2,300 square feet of area under glass.

This building is not a hothouse in the ordinary sense of that term. The upper courses of glass above the concrete walls on either side are curved, and there are no side vents. It is also considerably higher than the usual hothouse. Properly speaking, the Greenhouse is both a conservatory for the exhibition of plants and a growing or propagating house. One small section of the building, a short segment of the old north wing, is without heat and can only be used during the summer.

Attached to the Greenhouse is the Gardener's Cottage and Potting Shed. This is a two-story reinforced concrete structure with basement, the first floor serving as a workshop with convenient doorway into the Greenhouse, and the second floor as quarters for the Glenmont gardener. The present structure occupies in part

the site of an earlier potting shed and greenhouse shown on a West Orange Atlas of 1904 date (see Exhibit 5). Some of the brick foundation walls of this earlier building complex were used as foundation for the present Gardener's Cottage and Potting Shed, and portions of the earlier greenhouse walls adjoining are still standing east of the present Orchid House and small wing section, and north of the main long section of the existing Greenhouse. The first potting shed was probably a frame structure, smaller in size than its later counterpart.

Exactly when the earlier structures were torn down to make room for the later buildings has not been determined, but a bill to Thomas A. Edison from the National Phonograph Company dated August 11, 1908, indicates that almost the whole of the present Greenhouse, and in all likelihood the Gardener's Cottage and Potting Shed as part thereof, was built in that year at a cost of \$7,282.87 (see Exhibit 3). This may seem like a large sum (considering that it would be from \$35,000 to \$75,000 in terms of 1964 dollars), but Mr. G. Thore Hallstrom, gardener at Glenmont for the past 28 years, believes it consistent for the period of construction and the excellent workmanship and high quality of materials used throughout.

Structural evidence leads us to believe that the Gardener's Cottage and Potting Shed and the supporting Greenhouse walls were built first, probably all at one and the same time, after which the metal frame and glass lights of the Greenhouse were installed in place. The westerly wall of the former and the concrete adjoining wing wall of the latter appear to have been one continuous pour, the wood-form imprints being continuous without break, and the concrete aggregate being about the same throughout, both for the Gardener's Cottage and Potting Shed and for the Greenhouse support walls. Color and texture of this concrete is quite uniform, including the presence of small bits of coal in the aggregate. Such is the conclusion of all who have examined the two buildings, including Architect Henry Judd and Exhibit Specialist (Restoration) Gordie Whittington, EODC. Superintendent Melvin J. Weig and Gardener Hallstrom are of the same opinion.

This 1908 construction was apparently limited to all of the present Greenhouse except the north wing, that is, to what are now known as the Leanto adjoining the south side of the Gardener's Cottage and Potting Shed, the Orchid House on the east side of that building, and the main wing consisting of the Palm House, the Rose House, and the Carnation House, in that order as

partitioned eastward. The north wing adjoining the Orchid House was of different construction. Mr. Hallstrom was told by one of his predecessors at Glenmont that this section, which rested on the walls of the earlier greenhouse, was purchased and obtained second-hand from another estate in the St. Cloud neighborhood of West Orange sometime in the 1920's. It was much shorter than the earlier greenhouse, and as far as is known extended as indicated on the Site Historical Base Map (see Exhibit 2) when Mr. Edison died in 1931. The more easterly wall sections of the original greenhouse were at some time cut down in height to serve for cold frame purposes, also as shown (but erroneously labeled "hot beds") on that map, and thus they continue serving today.

The north wing of the Greenhouse as installed in the 1920's was of steel and wood construction on the old greenhouse foundations as stated above, with about 332 square feet under glass. It remained in place, serving as a hothouse, for many years. However, following the death of Mrs. Thomas A. Edison in 1947 there was a general retrenchment in all Glenmont garden work as a result of sole administration of the property being transferred to Thomas A. Edison, Inc., which ten years later became the Edison Industries Division of the McGraw-Edison Company. By 1950 the north wing had deteriorated to such an extent that the cost of its rehabilitation appeared prohibitive. Thomas A. Edison, Inc., therefore made arrangements to sell the north wing, as a result of which all of it was removed by the purchaser except for the small section now standing adjacent to the Orchid House. This section is only about six feet long and eighteen feet wide (see Exhibit 4). The benches and old heating pipes which it once had were removed, and Gardener Hallstrom has been able to make use of it for growing purposes only during the summer months. Mr. Hallstrom's desire to retain this portion was dictated primarily by the fact that the partition separating the north wing from the Orchid House had glass lights which butted together, and he was afraid that if the whole wing were removed the north part of the Orchid House would be difficult to heat in cold weather. The retained remainder of the north wing affords protection in this respect. Unless it had been kept the adjoining section of the Orchid House would have had to be reglazed, entailing much additional expense.

Mr. Hallstrom recalls that a Mr. Todd Krauter (then of Springfield, New Jersey) purchased the north wing as above, took it down, and in turn sold it to a young couple for reinstallation at a road-stand store which they operated in or around Newfoundland, New Jersey. Efforts will be made to ascertain if the structure so

relocated can still be found, and if so it will be photographed and measured against the possibility that its return and restoration as part of the Glenmont Greenhouse are determined to be advisable.

In the Historical Data section of another Historic Structures Report, Part I, previously submitted, evidence was submitted indicating that the Garage, Building No. 15 at Glenmont, like the Greenhouse and probably the Gardener's Cottage and Potting Shed, was also built in 1908, its cost being \$12,323.52. Particularly interesting in this connection is the sequence of vouchers in the Site archives. That for the Garage bears No. 6961 and is dated August 11, 1908. The one for the Greenhouse is No. 6962 and bears exactly the same date, with cost of \$7,282.87 as above mentioned. Comparison of the cost figures makes it all the more logical to assume, in addition to the structural evidence already noted, that the Greenhouse and the Gardener's Cottage and Potting Shed were built as a unified complex in 1908, and that use of the words "Green House" only in Voucher No. 6961 was intended to cover such combined construction.

All this makes even greater sense when one considers that the period 1904-1909 was a time when Thomas A. Edison was extremely active in the manufacture of Portland Cement. He was especially interested in working out new methods for the production of that important commodity and developed several new applications for it, among them use of the product for pre-cast molded concrete houses and automobile highways. The year 1907 found him experimenting at his West Orange Laboratory on a model for poured concrete houses using pre-cast iron moulds. Curiously enough, the Gardener's Cottage and Potting Shed was just about the size of building the inventor had in mind for his poured concrete house, which was then referred to in some quarters as the low-priced home of the future.

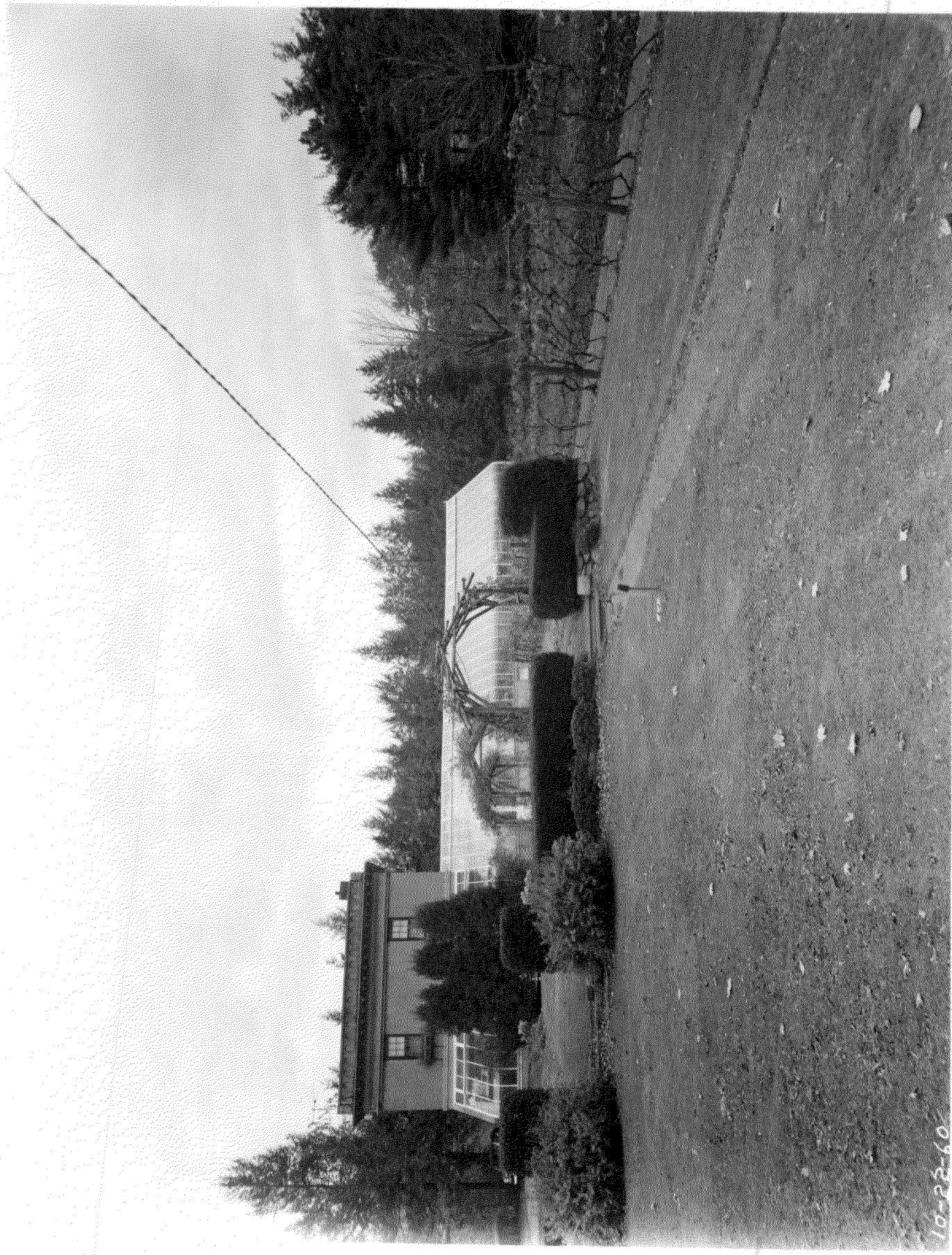
These several concrete structures at Glenmont were thus part and parcel of Mr. Edison's turn-of-the-century scientific and technological interest and represent extant examples of how he applied some of his ideas with respect to the use of Portland Cement in building construction. This important fact, in addition to their functional role as part of the Glenmont scene, gives them added historical significance, and the more argues for their rehabilitation and preservation for future generations.

REFERENCE NOTES

1. The writers are deeply indebted to Mr. Hallstrom for his valuable and comprehensive recollections as set forth in this and the following paragraphs. Mr. Hallstrom apparently evinced a happily inquisitive interest in the history of Glenmont from the very beginning of his employment there about 28 years ago, and with this the habit of writing down in daily notes everything of importance that took place from time to time, including his horticultural work and changes in the estate scene. His memory has been checked out with other information sources on various occasions, and in every instance it has proved remarkably accurate and precise.
2. Archives, Edison National Historic Site, Ledger No. 8: Personal General Ledger, July 1, 1907-February 28, 1908, pages 285-289.

EXHIBIT 1

Photograph of the south side of
Gardener's Cottage and Potting
Shed, Building No. 11, and
Greenhouse, Building No. 14,
taken August 28, 1947.
Negative No. 6828



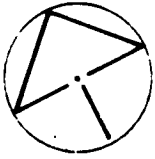
10-22-60

EXHIBIT 2

Glenmont Estate, Section of
Historical Base Map made in
1964 showing buildings stand-
ing at the time of Edison's
death in 1931.

• EXPLANATORY NOTE •

THIS MAP SHOWS HISTORIC AND OTHER BUILDINGS OR PHYSICAL
FEATURES, WITHIN BOTH PRESENT AND PROPOSED SITE BOUNDARIES,
WHICH ON THE BASIS OF KNOWN EVIDENCE WERE IN EXISTENCE AT
THE TIME OF THOMAS ALVA EDISON'S DEATH ON OCTOBER 18, 1931.



ORIENTATION

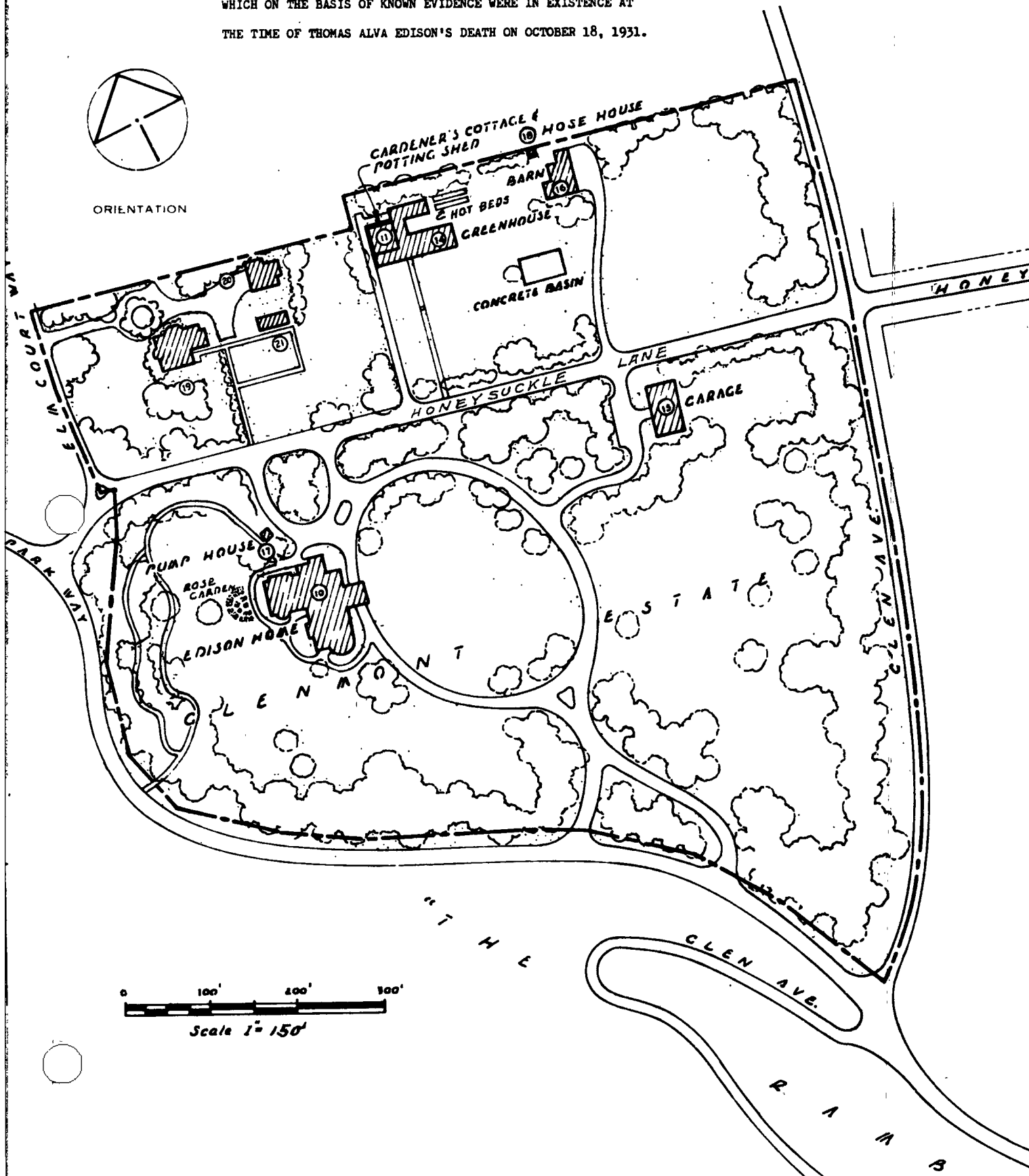


EXHIBIT 3

Photocopy of voucher establishing construction date of Greenhouse, Building No. 14

NATIONAL PHONOGRAPH CO.

TO ORDER NO.

OUR ORDER NO. 3 0 665

TRAFFIC DEPT. NO.

TERMS 30 DAYS NET.

SOLD TO Mr. Thomas A Edison

SHIPPED

TO

VIA:

ORANGE, N. J., 8 11/08

When referring to this bill
Mention this Number

6961

NOTICE—Please do not
Alter the Figures on the Bill
If any Errors or Differences
exist, kindly return for Cor-
rection, so as to avoid Con-
fusion of Accounts.

We do not insure delivery
or safe carriage of goods
They are at your risk of break-
age and transportation after
shipment from our factory.

Remit direct to Orange
N. J. Office.

No Salesmen have Author-
ity to Collect our Accounts.

QUANTITIES	GROSS WEIGHT	LBS.	F B
	To Cover Labor and Material in Building Green House and Painting same. Credit G N Basc.		7,232.87

OK 7/11/08

*chg.
Green House 1/10*

EXHIBIT 4

Photograph of east side of
Gardener's Cottage and Potting
Shed, Building No. 14, showing
original walls of earlier green-
house. Taken September 24, 1964.

Negative No. O-1432

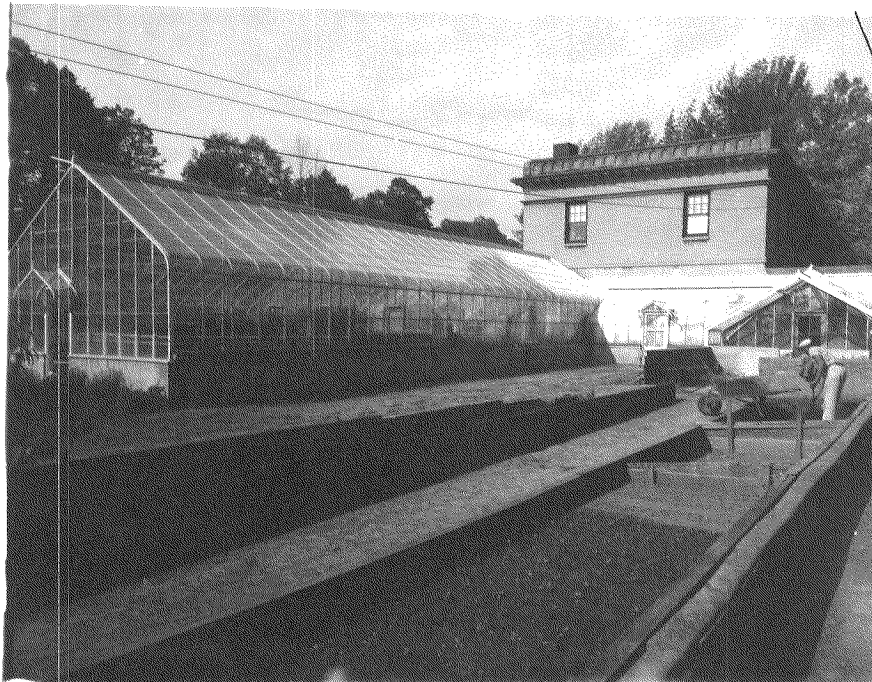


EXHIBIT 5

Photocopy of West Orange Atlas of
1904 in the Town Engineer's Office,
West Orange, New Jersey, showing
location of earlier greenhouse and
potting shed.



A. Heald 610.4
95
Est. M. Heald 1.1
Est. M. Heald 1.1
160.4
5
TREFOIL PASS

David E. Green 436.4 96
194.1
Rebecca Byerley 502.2
David E. Green 640.4
Geo. J. Seabury 433
BEND
OAK

Oakleigh
Caroline Stone Est. 10.4
WP 2
BEND
OAK

Woodlands
Chester
569.4
3
Annie Jenkins 2.4

Thos. A. Edison 10.46 A.
91
Glenmont
PARK
T
WAY

Thos. A. Edison 10.46 A.
91
Glenmont
PARK
T
WAY

Elm Court 101
E. Remington Nichols 15.12.4
Caroline Harrison 309.4
Thos. A. Edison 3.4
19
PARK

Woodlands
Elizabeth W. Burke 19.60.4
PARK

Est. R.C. Browning 323.4
92
WAY

H.B. Auchincloss 429.1
90
Hollyoaks
Marguerite A. Colgate 279
John 19 Auchincloss 0.94.4
H.B. 18 Auchincloss 0.93.4
Ave

Bonaire
Blythwood
Robert D. Douglass 3555.4
86
90
92
96
Ave

Geo. Richards 2.475.4
Thos. A. Foster 2.25.4
Sullivan Bros 86
88
Ave

HISTORIC STRUCTURES REPORT
PART I
ARCHITECTURAL DATA SECTION
ON
GARDENER'S COTTAGE,
POTTING SHED
AND
GREENHOUSE
Edison National Historic Site

Prepared by
Norman M. Souder
Architect
August 1964

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

GARDENER'S COTTAGE,

POTTING SHED

AND

GREENHOUSE

Edison National Historic Site

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

RECOMMENDED

Superintendent Date _____

Robert S. Hall
Chief, EODC Date 8-12-64

Regional Director, Northeast Region Date _____

APPROVED

Director Date _____

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I. FOREWORD

The Gardeners Cottage and Potting Shed was the first of the two reinforced concrete buildings erected at Glenmont, Thomas Edison's estate at Llewellyn Park. It was erected in 1906 on the site of an earlier structure. Edison was a pioneer in integrally poured reinforced concrete buildings. The second concrete building at Glenmont was the Garage, built in 1908.

The existing Greenhouse was erected in 1909 and is the second greenhouse on the site. The foundations of one wing of the earlier greenhouse are still standing.

This group of buildings is in good physical condition and will require only minor repairs which are mentioned briefly in this report.

Superintendent Weig and his staff and Exhibits Specialist Gordie Whittington of Edison National Historic Site, were most cooperative in the gathering of material for this and the subsequent sections of the Historic Structures Report.

Norman M. Souder
Architect
August 1964

II. EXISTING CONDITIONS - GARDENERS COTTAGE AND POTTING SHED

A. Exterior

1. Walls

The combined Gardeners Cottage and Potting Shed is a two story and basement structure of reinforced concrete.

The structure has the concrete at the first floor level, finished with a smooth surface and at the second floor level with a rough textured surface. The two treatments are separated by a moulded band course.

A heavy, moulded, modillioned cornice is placed at the roof slab level and trimmed below with moulded bands.

The concrete parapet above the roof is decorated with small, arched top, recessed panels and trimmed with an asphalt covered concrete coping. The series of arched panels produce the effect of an arcaded balustrade.

2. Roof

The roof is flat with a slight slope to the roof drain, located in the northeast corner. The built-up roofing is new and is in good condition. A new metal hatchway cover is located in the center of the roof but is non-functional due to the lack of an opening in the dropped ceiling below.

3. Fenestration

A double wood door, the entrance to the work shop,

is centered on the west wall. The entrance to the Gardener's apartment on the second floor is located near the east corner of the north wall. The entrance to the orchid greenhouse is through a door on the east wall of the Potting Shed.

Four small, hinged, six light sash are located on the first floor, two on the south wall, one on the west and one on the east wall.

The windows on the second floor are fitted with six over one light sash. There are three windows on the east and west sides and two on the north and south sides of the second floor. The window and door frames throughout are constructed of wood.

4. Chimney

The large reinforced chimney is located near the southwest corner of the building. The chimney was formed by pours of concrete between the floor slabs, consequently during rains the water seeps from the inside of the stack onto the floor slabs. Other than wear from gases and acids at the top, the stack appears structurally sound.

B. Interior

1. Basement

The building is erected partially on brick foundations of a former structure on the south side and to the north on reinforced concrete foundations. The basement is

3.

divided into four areas, furnace room, former coal bin, stair hall and winter bulb storage room. The floors and stairs are concrete throughout with the exception of the bulb storage room which has an earth floor. The boiler is set into a concrete pit.

2. First Floor

The first floor consists of the workshop potting shed, lavatory, stair hall, store room and several closets.

The floors, exterior walls and ceilings are exposed concrete, painted. Interior partitions are constructed of plastered concrete tile and are painted. A storage area has been created in the workshop by the erection of a low stud partition, covered with gypsum board.

3. Second Floor

The gardener's apartment on the second floor consists of a hall, living room, kitchen, dining room, pantry, bedroom and bath.

The partitions on this floor are concrete tile. Both the exterior walls and the interior walls and the ceilings are covered with dry-wall on furring.

The floor is 3-1/2" wide, tongue and groove wood flooring on wood sleepers, set into the concrete slab.

The interior wood trim varies with the date of

application. The earlier trim is flat with multiple edge beading and the subsequent trim is a modern flat "sanitary" trim. Several of the doorways are trimmed with a crown mold at the head. The walls are papered and most of the woodwork is varnished.

Doors are mostly of the six horizontal panel type of the early 1900's.

III. EXISTING CONDITIONS - GREENHOUSE

The Greenhouse is attached to the east and south sides of the Gardener's Cottage, where it is built in a lean-to manner. A long wing extends from the southeast corner and another shorter section extends from the northeast corner.

Except for the propagation house, which is partially wood framed and side vented as well as ridge vented, the entire structure is a commercially produced show house with ridge ventilators.

The Greenhouse, set on a concrete foundation, is built of U-frame steel ribs. The eave glasses are curved and curved glass hoods are located over the exterior doors.

New exterior doors have been reproduced to replace the older damaged doors.

The interior of the Greenhouse is divided into six glass partitioned rooms. The aisles are paved with concrete and many of the planting beds have concrete slab bottoms and curbs.

The Greenhouse is in good physical condition except for minor concrete cracks and spalling.

Brick walls extending east from the propagation house mark the location of an earlier long greenhouse which pre-dated the existing building.

IV. RECOMMENDATIONS

A. Gardener's Cottage and Potting Shed

The following recommendations are submitted for the stabilization of the Gardener's Cottage, Potting Shed and Greenhouse.

1. Repairs to the spalled concrete especially on the cornice, parapet and coping.
2. Repairs to window frames and replacement of several rotted window sash on the second floor.
3. Repairs to chimney - recommend the insertion of flue liners and fitting the opening around the liner with a waterproof cap.
4. Providing venting to space between second floor ceiling and roof slab.

B. Greenhouse

1. Minor patching of concrete at foundation walls.
2. Possible addition of aluminum covers for the protection of the U-sections which have wood glazing fillers exposed to the weather.

ILLUSTRATION NO. 1

The Gardeners Cottage and Greenhouse at Glenmont. This view from the southeast shows the longest section of the Greenhouse portion. The Potting Shed is located on the first floor of the Gardener's Cottage.

Photo by: National Park Service, EODC
Boucher, April 1959

HABS photo



ILLUSTRATION NO. 2

The southwest corner of the Gardeners Cottage and Greenhouse. This photograph illustrates the concrete cornice and arcaded parapet in detail. The entrance to the workroom on the first floor is on the west wall at the left.

Photo by: National Park Service, EODC
Boucher, April 1959

HABS photo

