MARYLAND HISTORICAL TRUST
NR-ELIGIBILITY REVIEW FORM

Property Name: North Farm, BARC Inventory Number: PG: 61-20

Address:

Owner:

Tax Parcel Number: Tax Map Number:

Project Section 110 Identification and Evaluatio Agency State Highway Administration (SHA)

Site visit by SHA Staff: __ no X yes Name: L. Bowlin Date: 1/9/95

Eligibility recommended X Eligibility **not** recommended __

Criteria X A __ B X C __ D Considerations: __ A __ B __ C __ D __ E __ F __ G X None

Is property located within a historic district?: X no __ yes Name of District:

Is district listed?: X no __ yes

Description of Property and Eligibility Determination *(Use continuation sheet if necessary and attach map and photo)*

The North Farm Historic District at the Beltsville Agricultural Research Center (BARC) is composed of 21 acres which represent some of the earliest development of this federal facility. Formally known as the US Horticultural Station at Beltsville, the North Farm was acquired by the Bureau of Plant Industry/ US Department of Agriculture (USDA) in 1932 to relocate the agency's experimental plant research facility from Arlington, VA. The North Farm became the primary national research facility of the Bureau. Scientists and administrators in the Bureau were responsible for many important discoveries in the field of plant research, including work in the area of improving fruit, horticultural and forage crops. The historic district is composed of 10 contributing resources. Architecturally, the district forms a very cohesive grouping of Georgian Revival buildings. The main laboratories, administration buildings and the greenhouses all reflect this style of architecture. Common materials such as brick, slate roofs, and stone accents are utilized in the institutional buildings. Buildings 001-007 and 009-011 have been determined as contributing resources. These buildings were part of the completed scope of work; other buildings constructed during the period of significance 1933-45 exist but have not been surveyed (1995).

Prepared by

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended X **Eligibility not recommended** __

Criteria: X **A** __ **B** X **C** __ **D** **Consideration** __ **A** __ **B** __ **C** __ **D** __ **E** __ **F** __ **G** __ **None**

Reviewer, Office of Preservation Services 4/24/98 **Date**

Reviewer, NR Program 11/1/99 **Date**

PRESERVATION VISION 2000; THE MARYLAND PLAN
STATEWIDE HISTORIC CONTEXTS

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
_X_	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
____	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
____	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

____	Rural Agrarian Intensification	A.D. 1680-1815
____	Agricultural-Industrial Transition	A.D. 1815-1870
_X_	Industrial/Urban Dominance	A.D. 1870-1930
____	Modern Period	A.D. 1930- Present
____	Unknown Prehistoric	
____	Unknown Historic	

IV. Historic Period Themes:

_X_	Agriculture
_X_	Architecture, Landscape Architecture, and Community Planning
____	Economic (Commercial and Industrial)
____	Government/Law
____	Military
____	Religion
____	Social Educational/Cultural
____	Transportation

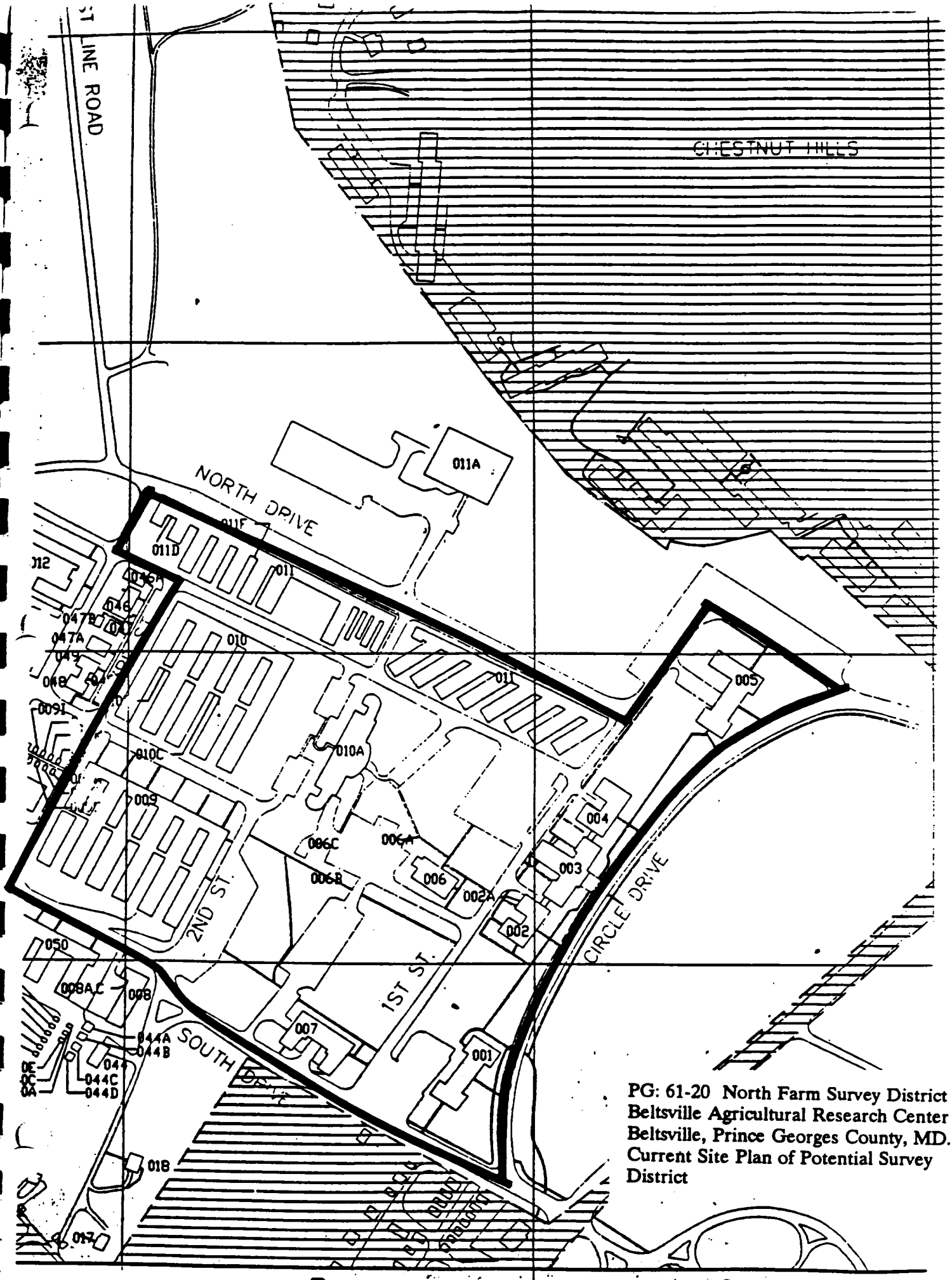
V. Resource Type:

Category: District

Historic environment: Rural

Historic Function(s) and Use(s): Government, Education/research facility

Known Design Source: none



PG: 61-20 North Farm Survey District
Beltsville Agricultural Research Center
Beltsville, Prince Georges County, MD.
Current Site Plan of Potential Survey District

1:24000

1 MILE

3000 4000 5000 6000 7000 FEET

1 KILOMETER

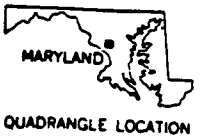
INTERVAL 10 FEET
VERTICAL DATUM OF 1929

ROAD CLASSIFICATIC

Heavy-duty — Light-dut

Medium-duty — Unimpro

Interstate Route — U. S. Route



QUADRANGLE LOCATION

ONAL MAP ACCURACY STANDARDS
GEOLOGICAL SURVEY
5, OR RESTON, VIRGINIA 22092
PS AND SYMBOLS IS AVAILABLE ON REQUEST

PG: 61-20 North Farm Survey Distric
Beltsville Agricultural Research Cente
Beltsville, Prince Georges County, MI
USGS Map Beltsville Quadrangle
1964, Photorevised, 1979

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: North Farm, BARC Survey Number: PG:61-20

Project: Section 110 Identification & Evaluation Agency: F/USDA

Site visit by MHT Staff: ___ no _X_ yes Name L.Bowlin Date 1/9/95

Eligibility recommended _X_ Eligibility **not** recommended ____

Criteria: _X_A ___B _X_C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

The North Farm Historic District at the Beltsville Agricultural Research Center (BARC) is composed of 21 acres which represent some of the earliest development of this federal facility. Formerly known as the U.S. Horticultural Station at Beltsville, the North Farm was acquired by the Bureau of Plant Industry/U.S. Department of Agriculture (USDA) in 1932 to relocate the agency's experimental plant research facility from Arlington, VA. The North Farm became the primary national research facility of the Bureau. Scientists and administrators in the Bureau were responsible for many important discoveries in the field of plant research, including work in the area of improving fruit, horticultural and forage crops. The historic district is composed of 10 contributing resources. Architecturally, the district forms a very cohesive grouping of Georgian Revival buildings. The main laboratories, administration buildings and the greenhouses all reflect this style of architecture. Common materials such as brick, slate roofs, stone accents are utilized in the institutional buildings. Buildings 001-007 and 009-011 have been determined as contributing resources. These buildings were part of the completed scope of work; other buildings constructed during the period of significance 1933-45 exist but have not been surveyed (1995).

N.B. Building 8 was constructed in 1950 and is currently outside the existing boundaries.

Documentation on the property/district is presented in: Maryland Inventory Form

PG:61-20 Cultural Resources Report Buildings 001-007, North Farm Beltsville Ag. Research Cen

Prepared by: Carol Hooper/Robinson and Associates

L.L. Bowlin 11/19/95
Reviewer, Office of Preservation Services Date

Concur: Peter E Kurtze NR/ORSR 11/29/95

Survey No. PG:61-20

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
__X__	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
____	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
____	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

____	Paleo-Indian	10000-7500 B.C.
____	Early Archaic	7500-6000 B.C.
____	Middle Archaic	6000-4000 B.C.
____	Late Archaic	4000-2000 B.C.
____	Early Woodland	2000-500 B.C.
____	Middle Woodland	500 B.C. - A.D. 900
____	Late Woodland/Archaic	A.D. 900-1600
____	Contact and Settlement	A.D. 1570-1750
____	Rural Agrarian Intensification	A.D. 1680-1815
____	Agricultural-Industrial Transition	A.D. 1815-1870
____	Industrial/Urban Dominance	A.D. 1870-1930
__X__	Modern Period	A.D. 1930-Present
____	Unknown Period (___ prehistoric	___ historic)

III. Prehistoric Period Themes:

____	Subsistence
____	Settlement
____	Political
____	Demographic
____	Religion
____	Technology
____	Environmental Adaptation

IV. Historic Period Themes:

__X__	Agriculture
__X__	Architecture, Landscape Architecture, and Community Planning
____	Economic (Commercial and Industrial)
____	Government/Law
____	Military
____	Religion
__X__	Social/Educational/Cultural
____	Transportation

V. Resource Type:

Category: district

Historic Environment: rural

Historic Function(s) and Use(s): agriculture/horticulture facility/ education

research facility

Known Design Source: Division of Plans & Service, Bureau of Ag.Engineering USDA

MARYLAND HISTORICAL TRUST

William Donald Schaefer
Governor

Jacqueline H. Rogers
Secretary, DHCD

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Administration BARC Buildings 001, 002, 006 + 007 W. Side of US1, BARC Greenbelt, MD PG County Survey Number: PG: 62-14

Project: MD 201 Extended, US from I95 to the Proposed Inter County Connector Agency: FHWA

Site visit by MHT Staff: X no ___ yes Name _____ Date _____

Eligibility recommended ___ Eligibility not recommended X

Criteria: ___A ___B ___C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

(PG: 62-14) Given our current knowledge of these buildings and the Beltsville Agricultural Research Center, they do not appear to be of exceptional significance as is required for resources less than 50 years old. Constructed in the late 1940's in the colonial Revival style, the buildings serve as administrative offices for BARC. The buildings are located on the western side of US 1 on the grounds of the Beltsville Agricultural Research Service. However, they are removed from the major concentration of resources associated with BARC, to the east and are therefore unlikely to be part of any potential district.

With time and additional research these buildings may be found to be eligible.

Documentation on the property/district is presented in: project files

Prepared by:

Elizabeth Hannold — 10/2/91
Reviewer, Office of Preservation Services — Date

NR program concurrence: X yes ___ no ___ not applicable

E Andrews — 10.3.91
Reviewer, NR program — Date

Survey No. PG:61-20

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

___	Eastern Shore	(all Eastern Shore counties, and Cecil)
_X_	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
___	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
___	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

___	Paleo-Indian	10000-7500 B.C.
___	Early Archaic	7500-6000 B.C.
___	Middle Archaic	6000-4000 B.C.
___	Late Archaic	4000-2000 B.C.
___	Early Woodland	2000-500 B.C.
___	Middle Woodland	500 B.C.- A.D.900
___	Late Woodland/Archaic	A.D. 900-1600
___	Contact and Settlement	A.D. 1570-1750
___	Rural Agrarian Intensification	A.D. 1680-1815
___	Agricultural-Industrial Transition	A.D. 1815-1870
___	Industrial/Urban Dominance	A.D. 1870-1930
_X_	Modern Period	A.D. 1930-Present
___	Unknown Period (___ prehistoric	___ historic)

III. Prehistoric Period Themes:

___	Subsistence
___	Settlement
___	Political
___	Demographic
___	Religion
___	Technology
___	Environmental Adaption

IV. Historic Period Themes:

_X_	Agriculture
_X_	Architecture, Landscape Architecture, and Community Planning
___	Economic (Commercial and Industrial)
___	Government/Law
___	Military
___	Religion
___	Social/Educational/Cultural
___	Transportation

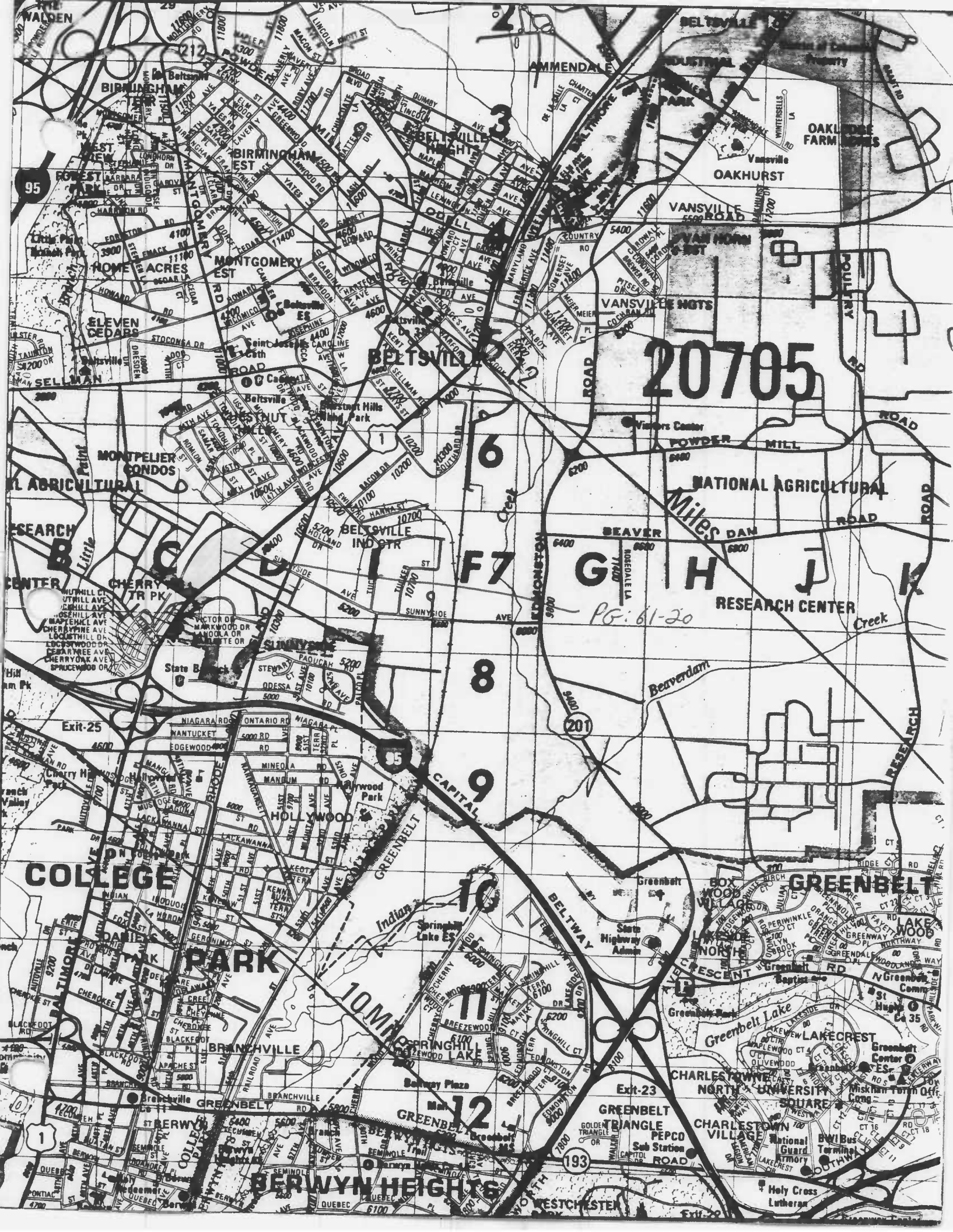
V. Resource Type:

Category: Buildings

Historic Environment: Suburban

Historic Function(s) and Use(s): Office

Known Design Source: —


20705
BELTSVILLE
BELTSVILLE HEIGHTS
BIRMINGHAM EST
MONTGOMERY EST
HOME ACRES
ELEVEN CEDARS
MONTPELIER CONDOS
AMMENDALE
OAKHURST
VANSVILLE
VANSVILLE HGTS
NATIONAL AGRICULTURAL
RESEARCH CENTER
BELTSVILLE IND CTR
CHERRY TR PK
SUNNYSIDE
HOLLYWOOD
COLLEGE PARK
GREENBELT
BRANCHVILLE
SPRINGHILL LAKE
BERWYN HEIGHTS
CHARLESTOWN VILLAGE
CHARLESTOWN NORTH
UNIVERSITY SQUARE
LAKECREST
Greenbelt Lake
Beaverdam Creek
Indian Creek
Exit-25
Exit-23
10 Mile
PG: 61-20

MD INVENTORY OF HISTORIC PROPERTIES FORM

PG: 61-20

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

==========

1. Name of Property

==========

historic name North Farm Survey District, Beltsville Agricultural Research Center
other names/site number Buildings 001-007, 009-011

==========

2. Location

==========

street & number Beltsville Agricultural Research Center - West
Not for publication ___
city or town Beltsville **vicinity** N/A
state Maryland **code** MD **county** Prince Georges **code** 033
zip code 20705-2350

==========

3. State/Federal Agency Certification

==========

==========

4. National Park Service Certification

==========

==========

5. Classification

==========

Ownership of Property (Check as many boxes as apply)

___ private
___ public-local
___ public-State
_X_ public-Federal

Category of Property (Check only one box)

___ building(s)
_X_ district
___ site
___ structure
___ object

Number of Resources within Property

Contributing	Noncontributing	
10	1	buildings
		sites
		structures
		objects
10	1	Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) N/A

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat:	**Sub:**
AGRICULTURE/SUBSISTENCE	horticulture facility
EDUCATION	research facility

Current Functions (Enter categories from instructions)

Cat:	**Sub:**
AGRICULTURE/SUBSISTENCE	horticulture facility
EDUCATION	research facility

7. Description

Architectural Classification (Enter categories from instructions)

OTHER: Colonial Revival

Materials (Enter categories from instructions)

(See Description Section)
foundation
roof
walls
other

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.) See continuation sheet.

8. Statement of Significance See continuation sheet.

Areas of Significance (Enter categories from instructions)
Agriculture

PG: 61-20

Period of Significance
1933-1945

Significant Dates

Significant Person (Complete if Criterion B is marked above)

Cultural Affiliation N/A

Architect/Builder Division of Plans & Service, Bureau of Agricultural Engineering, U.S. Department of Agriculture

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.) See continuation sheet.

9. Major Bibliographical References See continuation sheet.

10. Geographical Data

Acreage of Property
Approximately 21 Acres

PG: 61-20

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	__	_____	_____	3	__	_____	_____
2	__	_____	_____	4	__	_____	_____

Verbal Boundary Description (Describe the boundaries of the property.)
The boundaries of the survey district follow Circle Drive on the east, South Drive on the south, 3rd Street on the west (until it intersects Building 011, then they jog west to 4th Street to incorporate the last portion of Building 010), and North Drive on the North.

Boundary Justification (Explain why the boundaries were selected.)
The boundaries of the survey district have been drawn to include all buildings constructed within the period of significance that directly relate to the scientific mission of the Beltsville Agricultural Research Center. With the exception of the one non-contributing structure, all buildings within the boundaries also share common materials and stylistic influences.

11. Form Prepared By

name/title Carol Hooper, Architectural Historian
organization Robinson & Associates **date** June 17, 1995
street & number 1710 Connecticut Ave., NW **telephone** (202) 234-2333
city or town Washington **state** DC **zip code** 20009

Property Owner

(Complete this item at the request of the SHPO or FPO.)
name
street & number **telephone** _____
city or town **state** **zip code**

PG: 61-20

NPS Form 10-900-a
(8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section 7 **Page** 1

North Farm Survey District
Beltsville Agricultural
Research Center
name of property
Prince Georges, Maryland
county and State

DESCRIPTION

Summary

The North Farm is one of five largely contiguous parcels or "farms" which make up the 6,582-acre Beltsville Agricultural Research Center (BARC) site. It is located a few miles south of Beltsville, Maryland, off of Maryland Route 1 (the Baltimore-Washington Boulevard). It includes 549 acres and is roughly bordered by Sellman Road to the north, I-95 to the south, Route 1 to the east, and Cherry Hill Road to the west. The site is roughly bisected by Little Paint Branch Creek. The area to the west of the creek is largely cultivated farmland with a dozen or so scattered farm buildings. In contrast, the area to the east of the creek is the most densely developed area on the BARC grounds. It includes greenhouses and smaller service buildings (to the west) and a grouping of mid- to late 1930s and early 1940s laboratories and administrative buildings (to the east). It is this grouping that constitutes the core of the survey district. Nearly all of the buildings in this area are brick buildings of a consistent Georgian Revival style.

Description of Survey District

The buildings included within the survey district form a wide-stemmed "7" shape, with the top of the "7" consisting of the five buildings that face Baltimore-Washington Boulevard (Route 1). The district then continues northwest to include Buildings 006 and 007, and, farther to the northwest, Ranges 1, 2, and 3.

Buildings 001, 002, 003, 004, 005 (from south to north) are sited along a curved drive (Circle Drive) facing northwest onto Route 1. Both because of its formal positioning behind a large grassy lawn, and because it faces the busiest and most public street, this collection of buildings constitutes both the "front door" to the North Farm, and one of the most public faces of the entire BARC complex. All of these buildings were constructed as laboratory or office space; they continue in this use today. Building 004 was one of the first three buildings constructed on the site.

PG:61-20

Buildings 006 and 007, positioned slightly behind Buildings 001-005, were envisioned, in plans for the area dating to the 1930s and 40s, as portions of smaller quadrangles or organized spaces. They too were constructed as laboratories and office space, and they continue in this use today. Building 006 was one of the first three buildings constructed on the site.

Buildings 009, 010, and 011, are all headhouses and related greenhouses. Building 011, which consists of two unattached structures, extends in a long line from behind a space between Buildings 004 and 005. The more easterly section of the building is one of the first three buildings to be constructed at the site. Buildings 010 and 011 are adjacent to one another and are located behind, but some distance from, the rear facades of Buildings 006 and 007.

The only new building within the limits of the survey district is the recently occupied (and not yet completed) Plant Sciences Institute, which is located between Building 006 and Building 010. An additional building is planned for the area between the new PSI building and Building 010.

A few buildings, most service buildings, and some small, later, research buildings are scattered in the general area of the district. Surrounding this rather dense area of development are hundreds of acres of fields, most of which are cultivated, extending to the northwest and south. A small concentration of farm/service buildings is located due northwest of the site near the original farmhouse for the site.

Individual Building Descriptions

Architecturally, all of the buildings within the survey district (completed during the major periods of construction) share a consistent Georgian Revival styling. In addition to the Georgian Revival stylistic vocabulary (including quoining), the buildings also share the accompanying palette of materials/features (brick walls, slate roofs, wood and stone detailing, and double-hung windows).

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8-86)

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NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Building 001 and 005

The South Laboratory (Building 001) and its twin, the North Laboratory (Building 005), flank the central connected buildings (Buildings 002, 003, 004) facing Route 1. Both buildings are symmetrical, three-and-a-half story, brick, Georgian-revival structures with slate roofs and wood and stone detailing. The buildings are shallow "H"s in plan with a gabled roof along the length of their front facades, and cross gables running along their sides. The major focus of the front facades of the buildings is a central, half-round, projecting portico capped with a decorative metal rail.

Building 002

The Cold Storage Building is a three-story reinforced concrete and brick Georgian-revival structure with a slate roof and wood and limestone detailing. At the basement and first floor levels the building's massing is largely rectangular. At the second floor level, however, the building becomes U-shaped, as the part of the building constructed as the machine room does not continue to the second floor level. The roof structure is gabled along the length of the front facade, and hipped over the ends of the "U." The front (southeast) elevation is a symmetrical composition with a slightly projecting central pedimented three-bay section. In 1940, as part of the construction of the Administration Building (Building 003), a three-bay brick connecting hyphen was built between this building and the Administration Building. The hyphen connects the basements and first floors of the two buildings.

Building 003

The Administration Building is the central element of the assemblage of buildings facing Route 1. Of the five buildings, it is the most elaborate in design and materials. It is flanked by, and connected to, the Cold Storage Building (Building 002) to the south, and the Horticulture Building (Building 004) to the north. It is a three-and-a-half story, brick, Georgian-revival structure with a slate roof and wood and stone detailing (including stone quoining). The building is generally "T"-shaped in plan with a gabled roof along the length of the front facade and hipped roofs off of the rear

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CONTINUATION SHEET

facades. The front (southeast) elevation is symmetrical in design with a dramatic central three-bay-wide, three-story, Corinthian portico. A clock tower that rises above the portico is a central focus of attention for the building. The main section of the building is of reinforced concrete construction, with roof rafters of heavy-timber wood construction. The rear (theater) wing of the building is of fire-proofed steel construction.

Building 004

The Horticulture Building is a brick, U-shaped, Georgian-revival structure with a slate roof and wood and stone detailing. The roof structure is gabled along the length of the front facade, and hipped over the ends of the "U." The front (southeast) elevation is a symmetrical composition with a slightly projecting, pedimented, central three-bay section. In 1940, as part of the construction of the Administration Building (Building 003), a three-bay brick connecting hyphen was constructed between this building and the Administration Building. The hyphen connects the basement and first floors of the two buildings.

Building 006

The Fruit Products Laboratory is a two-and-a-half-story, hipped-roof building of Georgian Revival styling. Of brick construction, the building has a slate roof and wood and stone detailing. The building is symmetrically organized on all facades. The front facade has a three-part composition with stone quoining, which separates the two end bays from the central section. The major focus of the front facade at both the first- and second-floor level is the central bay, which features an elaborate entrance consisting of an Ionic portico supporting a small decorative metal balcony.

Building 007

The Soils Laboratory is a three-and-a-half-story, gable-roof brick building. Of Georgian Revival styling, the building has a slate roof and wood and stone detailing. It is symmetrically organized on all facades. The front facade of the building has a three-part composition consisting of pedimented end sections which bracket the long central section.

PG:61-20

Building 009

Range 3 consists of a long horizontal headhouse and six greenhouses attached at right angles to the headhouse. Because of its sloped site, and to prevent shading of the greenhouses, the building is stepped to follow the contours of the topography. The 1-1/2-story, Georgian Revival headhouse is of concrete block construction with brick veneer walls and concrete foundations. Each of the five stepped sections leads to a separate greenhouse and, with the exception of the easternmost section, each is nearly identical. The headhouse has a gabled roof with dormers located over the first and third windows of each section and over the door. The greenhouses are of the "half-metal" type of frame construction and are attached to the headhouse at a 90-degree angle.

Building 010

Range 2 consists of a long 1-1/2-story headhouse. The building is of concrete-block construction, with brick veneer walls and concrete foundations. It is Georgian Revival in styling. Originally, five greenhouses were attached at right angles to the rear of the headhouse and a palmhouse -- a large free-standing greenhouse of a more decorative design -- was linked to its east side. The greenhouse structures were demolished in 1994 and the five greenhouses are now being replaced. The palmhouse will not be replaced. Like the other headhouses, it is stepped to follow the contours of the topography.

Building 011

Range 1 consists of two adjacent buildings each comprised of a long 1-1/2-story headhouse and multiple single-story greenhouses attached to the rear of the headhouse. The greenhouses are attached either at right angles (in the case of the west building) or at more acute angles (for the east building) to the rear of the headhouse. The buildings are sited on a sloped area, and both are stepped to both avoid shading the greenhouses and to follow the contours of the topography. The two buildings are not generally referred to individually; instead, reference is made to specific greenhouses or headhouses in each building. The two headhouses, although not constructed

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(8-86)

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NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

simultaneously, were designed to be virtually identical on the front (main) facade. Both buildings use similar Georgian Revival decorative motifs. Both are of concrete block construction with brick veneer walls and concrete foundations.

PG:61-20

HISTORIC CONTEXT

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographical Organization: Western Shore

Chronological/Developmental Periods: Modern Period

Prehistoric/Historic Period Theme(s): Agriculture

Resource Type:
Category: Building

Historic Environment: Rural

Historic Function(s) and Use(s):
AGRICULTURE/horticulture facility
EDUCATION/research facility

Known Design Source:
Division of Plans & Service, Bureau of Agricultural Engineering, U.S. Department of Agriculture

PG: 61-20

SIGNIFICANCE

Summary

The North Farm was acquired in 1932 (purchased in 1933) by the Bureau of Plant Industry and expanded in the 1940s. The site was originally known as the U.S. Horticultural Station at Beltsville and later referred to as the U.S. Plant Industry Station. Since its founding, the site has been used for a variety of experimental plant research functions. The North Farm is now part of the Beltsville Agricultural Research Center (BARC), the largest research facility of the Agricultural Research Service (ARS), which is the main research agency of the U.S. Department of Agriculture (USDA). For 60 years, BARC has been the Department of Agriculture's principal experimental area and the leading and most diversified agricultural research complex in the world.

Arlington Farm, the Precursor to the North Farm

The North Farm is the USDA's second major plant-research facility in the Washington area. It came into being only after the first such facility, Arlington Farms, was threatened with elimination.

In 1900, the Department of Agriculture acquired the 400-acre tract of land that was to become Arlington Farms from the Department of War. Fronting on the Potomac River's Boundary Channel to the east, it included part of what is today the eastern portion of Arlington Cemetery, and part of the land that today surrounds the Pentagon. In the three years that followed its founding, the Arlington land was cleared and prepared, ditches were tilled, and the soil was enriched.

Experiments conducted at the station varied from studies of plant diseases to experiments relating to cold storage. Although the site was administered by the Bureau of Plant Industry, other USDA bureaus such as the Bureau of Agricultural Chemistry & Engineering, the Bureau of Entomology & Plant Quarantine, the Food and Drug Administration, and the Soil Conservation Service also had facilities there. Over the years, a diversity of facilities for agricultural research were developed. By 1939, these facilities included

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105 buildings, including laboratories, greenhouses, shops, barns, a central heating plant, and an extensive road system. Utilities at the site included power, water, gas, sewage, and telephone. The site's soil, some of which came from the rich alluvial Potomac river bottom, was also a major attribute. Beginning as early as 1911, however, the Army realized the utility of the Arlington Farms site and began to lobby to have it returned to its jurisdiction.[1] By the 1920s, the Commission of Fine Arts had weighed in on the side of using the site for an expansion of Arlington National Cemetery, and the National Park Service was eyeing the site for a riverfront park. Soon after, officials of Washington Hoover Airport made known their interest in the site in order to extend the Airport's runways. The Department of Agriculture, appreciative of a site close to its Washington headquarters, fended off attempts to reassign the land.

The Department, however, hedged its bets. Around 1930, the Division of Fruit and Vegetable Crops and Diseases needed land for a number of longterm experiments such as those with tree fruits, nuts, and grapes. Given the "recurring agitation" as to the future of the Arlington Farm lands, the Division began searching for land for another field station. Their official rationale for seeking out the land was to concentrate research scattered in different locations in one spot, and to provide, "a nucleus for such a move [from Arlington] if it should ultimately come about."

A study was made of land areas in the suburban Washington area and two adjacent farms in the Beltsville area came out as the top choices. Soil type was a major criteria for picking the sites. According to a 1932 memorandum:

> These two farms lie together as a unit approximately one to two miles west of Beltsville, Md., back from the Baltimore boulevard but with one small area fronting on the boulevard for about 800 feet. The land has been selected particularly for the conduct of horticultural research.

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[1]Vivian Wiser and Wayne D. Rasmussen, "Background for Plenty: A National Center for Agricultural Research," Maryland Historical Magazine, Vol. 61, Number 4 (December 1966), p. 292.)

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> Of the Sellman tract, something over 100 acres is strong river bottom land, admirably suited for truck crop experiments. Approximately 100 acres is equally good land but slightly higher, and the balance is rolling land with good air drainage and particularly suited for experimental work with fruit crops. The Miller tract is largely river bottom, a small area being higher land reaching forward to the boulevard. These areas now are almost entirely under intensive cultivation and can be utilized immediately . . . It must be borne in mind that the bulk of this land is now in truck crop production, being used for intensive cropping. Trucking soil is, of course, to be found only in limited areas and wherever found is far more expensive than the ordinary soils.[2]

According to the memorandum, proximity to the existing USDA facilities (in particular proximity to a reliable supply of fertilizer) and general closeness to Washington were also decisive factors in locating what became the North Farm.[3]

Development of the North Farm

The two original plots identified in the 1930 survey of possible sites were owned by Irvine L. Miller and Theodore Alexander Sellman and Robert Lee Sellman. Working through a middleman, the Division secured options for the lease and purchase of the farms. The lease of the 300-acre Sellman farm was executed December 18, 1931 (effective February 1, 1932) with rent of $2,740 per year and an option to purchase the land at $150 per acre. The Miller lease was executed January 9, 1932 (effective February 1, 1932). Rent was

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[2]Memorandum from William A. Taylor, Chief of the Bureau of Plant Industry, to the Secretary of Agriculture, January 18, 1932. (NARA RG. 17, Entry 19 (1943) Box 1933)

[3]A story retold in a 1953 National Geographic article describes USDA scientists examining the Beltsville soil and reporting back about its lack of fertility. According to the story, Secretary of Agriculture James Wilson responded to their complaints with, "Anyone can grow a crop on good land! Buy it, and use plenty of cow manure." (Samuel W. Matthews, "Beltsville Brings Science to the Farm," National Geographic, Vol. 104: 199-218, August 953.)

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$1,600 per year, and the purchase price was $300 per acre. Extant on the Sellman farm at the time it was acquired were:

1 dwelling house (14 rooms and basement, hot water heating system, water and bath, telephone, and Delco electric plant) [Building 023]
1 barn 45 x 72 ft., about 50 ft. high, with granary, basement and electric lights.
1 wagon shed about 35 x 50 with upstairs storage space.
2 implement sheds (fertilizer room in one, corn crib in the other).
1 2000 bushel corn crib.
1 potato cellar (about 20 x 30 x 8) with upstairs storage room.
1 five-room tenant house.
1 three-room tenant house.
1 four-room tenant house.
1 garage (16 x 20).
1 woodshed and pumphouse.
2 wells and three springs all working.
2 chicken houses.[4]

In February 1932, the land was divided between the different projects of the Division of Fruit and Vegetable Crops and Diseases. Planting of apple, peach, nut and other fruit trees was completed in the spring of the year. A few indicator crops were planted that season also. The next year, on October 1, the Government exercised its option to purchase the properties. Funding for the land came from a Public Works Administration (PWA) allotment. The total purchase cost was $80,793.15 and the site officially became the "U.S. Horticultural Field Station at Beltsville, Maryland." In addition to paying for the acquisition of the land, PWA funds for the same year amounting to $100,237 were expended to clear the land, put in drainage and water lines, install an irrigation system, and put in roads and walks. Building activities funded under this appropriation included the construction of the Range 1 greenhouses and headhouses, a foreman's cottage, and various other

[4]Lease between Theodore Alexander Sellman and Robert Lee Sellman and the United States of America, December 18, 1931. National Archives Records Administration, Record Group 54, "Deed & Title Records."

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smaller utilitarian structures. In addition, preliminary work on a horticultural laboratory and research building (Building 004) and plans for a cold storage building (Building 002, which was not built until 1939) were prepared. Plans for all of these buildings and all later buildings were drawn up by the USDA's Bureau of Agricultural Engineering, Division of Plans and Service.

PWA funds for 1934, which amounted to $361,793, were used to complete the Horticultural Laboratory and Range 1 greenhouses. New projects for the year included constructing the Fruit Products Laboratory (Building 006) and bringing electricity to the site. During this period, Civil Works Administration (CWA) labor was used to further develop the site in terms of clearing and construction of roads and bridges.

A major administrative change took place in August 1934. At that time, in order "to provide for the most beneficial use, in the interest of agriculture as a whole, of the land, buildings and other facilities of the Department in the Beltsville area,"[5] all of the USDA work at Beltsville, including the work of the Bureau of Plant Industry,[6] was grouped together administratively as part of the Beltsville Research Center. It was to be, "the major proving ground for the development of the idea of centralized control for department field stations."[7] Maintenance and construction of buildings and roads,

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[5]"Memorandum No. 648 - Beltsville Research Center," August 28, 1934. (Memorandum issued by Secretary of Agriculture H.A. Wallace.) National Archives Records Administration, Record Group 54, Box 43186-87.

[6]Included also was the research going on at the U.S. Plant Introduction Station at Glenn Dale, Maryland, although two years later Glenn Dale was excluded from this jurisdiction due to its distance. Established in 1919, Glenn Dale was one of four federal plant introduction stations operated by the Bureau of Plant Industry. It was often referred to as the Bell Station, because of a nearby trolley stop of that name.

[7]Although this constituted the official reason for the more centralized organizational structure, it also seems possible that USDA wanted to monitor more closely the vast sums of money being spent for construction at Beltsville. Only two months later, in October 1934, a scandal broke out concerning allegations of fraud relating to $1,314,890 in P.W.A. funds for Bureau of Animal Industries facilities.

custodial services, utilities, fire protection, mechanical shop services, and land and building assignments were all to be concentrated in the office of the Director of the Beltsville Research Center (located at a new building constructed on the Central Farm). Given the historic independence of the various Bureaus operating at Beltsville, the central organizing scheme was resisted by the Bureaus, which continued to operate relatively independently throughout the 1930s and 40s.[8]

In 1938, the Station's boundaries were expanded as it was assigned the "University of Maryland" tract consisting of 262.87 acres and "Toomb's Tract" of 48.05 acres owned by the Resettlement Administration. This land, which forms a connection between what is now the Central Farm and the North Farm, is referred to as the "Linkage" Farm.[9] The second wave of construction at the Plant Industry Station also occurred around 1938-39. The Range 2 Greenhouses, the heating plant, and the cold storage building were all completed around this period using PWA funds and CWA workers. Around this time also, the Divisions of Drug Plants and Nematology were also moved to the North Farm.

The next major flurry of development came as a result of the closing of Arlington Station. Pressure to release the Arlington land had increased dramatically as defense activities expanded in the late 1930s,[10] and the

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[8]Even after the individual Bureaus were abolished in 1953, their work continued in more or less the same tracts. It has been suggested that the historic resilience of individual parts of the USDA was a function of their ability to win earmarked appropriations from the Congress.

[9]This area remained largely undeveloped in terms of built structures until the construction of the National Agricultural Library.

[10]Officially, the Bureau strongly resisted moving at least up through 1943. They argued that the closeness of the Arlington site to Washington permitted upper-level scientists with administrative responsibilities to move back and forth quickly. The 35- to 45- minute commute to Beltsville did not compare favorably with the 15- minute commute to Arlington. According to a 1934 memo, "The loss of time resulting from this situation would greatly decrease the efficiency of the work by the higher grade employees of the Bureau . . ." (NARA RG 17, Entry 16 (1934), Box 1933).

Department continually lobbied Congress for funds to move the Arlington facility. Finally, on October 9, 1940, an appropriation in the Department of War's budget was approved to provide $3,200,000 for the relocation of Arlington Station. The appropriation was used for the acquisition of 606 acres of additional land (at the North and South Farms) and for the construction of fifteen buildings.[11] The larger buildings constructed using these funds included:

South Building (Building 001)
North Building (Building 005)
Administration Building (Building 003)
Soils Building (Building 007)
Range 3 (Building 009)
Addition to Central Heating Plant (Building 014)
Service Building "D" (Building 060)
Service Building "E" (Building 029)
Tobacco Barn (Building 028)[12]

Construction proceeded as fast as possible given wartime shortages, and on January 30, 1942, facilities were close enough to completion that jurisdiction of the Arlington Farm site was turned over to the War Department. (Portions of the site had been released earlier.) With the construction of the Arlington Farm replacement buildings, all of the Divisions of the Bureau of Plant Industry were moved to Beltsville. Work on cereal crops, tobacco, forage crops, and fertilizer joined the existing cold-storage, fruit-breeding, pharmacological, and nematology work already being

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[11]In planning for the extensive construction at the site, at least two extensive site plans were developed for the area. Both indicate locations for many buildings that were never constructed. In general, the plans show a formal, symmetrical --almost European-- treatment for the Building 001 to 007 area. An existing hexagonal pond with fountains, located behind where Building 003 was constructed was a centerpiece of the design.

[12]Arlington Relocation Documents, National Archives Records Administration, Record Group 54, Entry 151A.

conducted at the site. Six months later, the Plant Industry Station became an independent financial unit on a Division basis. By 1944, when all of the construction was completed, there were a total of 135 employees at the station, and the Plant Industry Station's budget was $48,550, with $349,400 in reimbursable work for other Divisions.

Organization of the Bureau of Plant Industry

The Bureau of Plant Industry was created on July 1, 1901, and organized plant science in the federal government is often traced to that date.[13] Some of the work later conducted by the Bureau, however, goes back as far as 1819, when the Treasury Department directed U.S. consuls to collect plant specimens and information on soil, cultivation, and insect pests in the countries in which they were located. The job of collecting foreign plant matter passed to the Commission of Patents in 1839. In 1856, the Commissioner employed the first federal botanist in the Patent Offices' Agricultural Division and the same year set up a garden on the Mall in Washington to grow sorghum. The Department of Agriculture was established in 1862 and research continued along a number of separate lines. In 1901, work relating to fruit and vegetable diseases and physiology; research to improve cereals, fibers, tropical crops, grasses and other forage plants; investigation into the production of tea; and the introduction of foreign seeds and plants were consolidated into the Bureau of Plant Industry.

From its beginning, the research work of the Bureau was conducted not only at Department of Agriculture facilities, such as greenhouses located on the Mall in Washington and at Arlington Farm (see section on North Farm), but also at cooperative research facilities operated by the states. As early as the Bureau's founding year, joint research in grass and forage crops was carried on in thirteen states.[14] The cooperative nature of the Bureau's work

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[13]See "Plant Science After Fifty Years," Science, 113: Sup. 3 (June 29, 1951).

[14]Under the Morrill Act of 1862, tracts of federal lands were granted to the individual states provided that the profit from the land sales go to support a state agricultural school. Later acts (including the Hatch Act of 1887) funded research at the experimental stations established at the Land Grant Colleges.

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continued and increased through the years.[15] Aiding this diversified work were not only state agricultural experiment stations, but also a considerable number of federal field stations and, later, regional labs.[16]

In 1938, the Bureau of Soils, and in 1943, the Bureau of Agricultural Engineering were merged into the Bureau of Plant Industry, and the Bureau was renamed the Bureau of Plant Industry, Soils, and Agricultural Engineering. The Bureau of Soils' research related to fertilizer, soil management and irrigation, and soil survey. The Bureau of Agricultural Engineering brought research relating to farm buildings and rural housing, farm electrification, farm machinery, and the mechanical processing of farm products into the fold. The Bureau remained in this configuration for less than ten years. In 1952, the Bureau was abolished and its functions were transferred to the Agricultural Research Service, which today continues to coordinate all research of the USDA.

The Work of the Bureau of Plant Industry

The work of the Bureau is best summarized by a Bureau of Plant Industry scientist who is quoted in a 1953 National Geographic article as saying, "In any research, a scientist must ask three questions: How can it be made better? How can it be made cheaper? Can something new be made?"[17] The Bureau's work, spanning over 50 years, brought agricultural research from science based largely on observation into the world of modern science. The Bureau's research over this period was voluminous and much of it represented important stepping stones for agriculture and/or scientific research in

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[15]By the early 1950s, the Bureau had research in progress on 925 projects at 199 locations in 45 states, the District of Columbia, Puerto Rico, the Canal Zone, and 11 Latin American countries.

[16]In 1941, the Division of Fruit and Vegetable Crops & Disease had a total of 18 field stations (including the Plant Industry Station) and 33 field laboratories. Four regional laboratories, located in New Orleans, Louisiana; Wyndmoor, Pennsylvania; Peoria, Illinois; and Albany, California, were authorized under legislation which went into effect in 1938.

[17]Matthews, "Beltsville Brings Science to the Farm," p. 200.

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general.

One example of the Bureau's formative early research, dating to the turn of the century, is research on cotton plants raised in wilt-infested soil. The experiment selected individual plants that resisted the wilt, and was one of the first scientific applications of the Darwin's principle of the survival of the fittest. Another example of the Bureau's early (1920) research was the discovery of the effect that photoperiod (the time a plant is exposed to light) has on fruiting and flowering. Prior to this research, the relationship between plant development (including flowering) and the relative length of day and night was not known.

Another rather romantic aspect of the Bureau's early research was the work of the plant explorers. From the earliest days of the Bureau, researchers traveled to remote parts of the earth seeking out new plants. A number of these plant explorers, such as Frank N. Meyer who died mysteriously in China, became famous through magazine articles and books.

Both of these formative types of research were picked up in later years in the work of the Bureau. For instance, the work related to photoperiodism was picked up in the seminal work of Harry Borthwick. Their work led to the discovery and isolation in 1959 of phytochrome. Phytochrome is the light-absorbing pigment in plants that triggers development. Their groundbreaking work related to the effect that various amounts and colors of light has on plant growth. Similarly, the work of the early plant explorers had its modern-day counterpart in, for instance, the development of a world-wide collection of small grain germplasm which was housed for many years at the Beltsville facility.

Throughout its history, much of the Bureau's research related in some respect to improving growing stock. Qualities sought out included disease resistance, eating quality, high yield, and keeping and shipping qualities. Many of the varieties of soy beans in commercial use today, modern commercial blueberries, many currently used varieties of potatoes, Easter lilies, and zoysia turf, as well as the important forage crop lespedeza, to name a few, all had their origin in research conducted by the Bureau of Plant Industry much of which was conducted at the North Farm. Illustrative of this research s the Bureau's blueberry work. The blueberry was one of the last major

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fruit crops to be domesticated; Bureau scientists first from Arlington, and later from Beltsville, were responsible for not only developing the modern commercial varieties of blueberries, but also for extending the range and soil types in which blueberries could be grown. Some of the experimental crossing of blueberry plants was conducted in Beltsville.

During World War II, much of the Department's work turned towards the war effort. Its major goal was to decrease the United States' dependence on imports from Europe and Asia. Research by the Bureau of Plant Industry produced the first American Easter lily bulbs, which had previously been imported from Japan. Chemists of the Bureau developed a method by which an American magnesium compound could be substituted for the magnesium used in fertilizer, which was imported from Germany. Similarly, domestic muriate of potash was found to be a good substitute for the imported potassium sulfate used for potato crops. Bureau scientists also worked to prevent a reoccurrence of a World War I shortage of sugar-beet seeds by encouraging the production of American sugar-beet seeds. Other efforts related to the production of tung oil (which had previously been imported exclusively from China), and rubber (which was the subject of experiments in Florida and South America). After the war, new emphases in research were on plant growth regulators (such as 2-4-D, which was developed at Beltsville), and the use of radioactive tracers to test fertilizers.

The world-wide impact of these findings is measured to some degree by the high number of international visitors to the site. BARC was one of the few local sights taken in by Khrushchev in his historic visit to Washington in 1959.

Architectural Development of the North Farm

Architecturally, the majority of the buildings of the North Farm (in particular the research and office buildings) represent an unusually cohesive collection of Georgian Revival buildings spanning the years from 1935 to 1950. The endurance of both the Georgian Revival stylistic vocabulary and the accompanying palette of materials (brick walls, slate roofs, stone detailing) for a variety of types of buildings over the years is unusual. The North Farm remains largely intact to its early (1930s to 1940s) character.

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The original impetus for the use of the Georgian Revival at Beltsville is unknown; however, it may have been inspired by the nearby Georgian Revival buildings at the University of Maryland, which predate the Beltsville construction. The style was also consistent with many other early twentieth-century government/institutional campuses across the country. In general, buildings constructed with federal money during this period followed certain stylistic conventions; in the northeast and mid-Atlantic regions Colonial/Georgian Revival styles were seen as appropriate, while in the west adobe and Spanish-revival styling were more appropriate.

In terms of the design of the buildings, all plans for the post-Department of Agriculture buildings were signed by the Department of Agriculture's Bureau of Agricultural Engineering, Division of Plans and Service.[18] The Division of Plans and Services, in addition to preparing plans for all buildings, also prepared specifications and cost estimates. The Coordinator of the BRC Construction Program acted as a intermediary between the Division of Plans and Services and the program offices. Designated individuals from each of the Bureaus determined program and budget for each of the new buildings. The designs were consistent in styling and materials to the buildings constructed at other areas of the Beltsville campus.

Perhaps one of the most unique structures on the North Farm was the log cabin located on the far west end of the North Farm, near the Paint Branch. This vernacular structure was designed by Bureau of Plant Industry scientist J. A. Beattie.

Pre-USDA buildings on the North Farm generally consist of dwellings and outbuildings. A majority of the dwellings on the site (the exception being Building 023 and, likely, 018) were conveyed to the government with the transfer of the land. (See above.)

The following table summarizes the date of construction of buildings located on the North Farm, bolded entries indicate buildings included in the Survey

[18]Plans for a number of the smaller farm buildings on the North Farms do not exist. In design, however, the buildings are consistent with those constructed on the Central Farm, also designed by the Division of Plans and Service.

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District.

BLDG #	DATE	NAME(S)
001	1943	South Laboratory Building/Building"C"/Building 4
002	1939	Cold Storage Building/ South Wing, Administration Building/ Building 3
003	1943	Administration Building/Building "A"/ Building 6
004	1935	Horticulture Building/Administration Building/North Wing, Administration Building/Building 1
005	1943	North Laboratory Building/Lab.Building "B"/Building 5
006	1936	Fruit Products Lab/West Building/Building 2
007	1944	Soils ~~Laboratory/~~Building "D"/Building 7
008	1950	AEC Greenhouse & Office
009	1943	Range 3/Arlington Relocation/Greenhouses
010	1939	Range 2/Washington Greenhouse Replacements
011	1935*	Range 1
012	1932-38	Farm Storage Building/"Service Building"
013	1932	Mechanical Shops
014	1939-40	Heating Plant
015	1939	Sewage Disposal Plant
016	pre-1933	Housing (not on original site)

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Beltsville Agricultural
Research Center
name of property
Prince Georges, Maryland
county and State

017	pre-1933	Housing/Childcare (not on original site)
018	1934	Housing (not on original site)
019	1952	Pump Station
021	pre-1933	Housing
022	pre-1933	Housing
023	1905	Housing
024	1942 1973	Storage/Screen House for Fruit Lab
025	1942	Storage
026	1954	Lubrication and Wash Service Building For ARC Office of Operations
027	1940	Gas Station
028	1942	Tobacco Barn
029	1942	B.P.I Farm Service Building "E"
029A	1938	Farm Storage Building "B"
030	1938	Washroom and Lavatories
031	1937	Nut Storage
032	1937	Spray Mixing Building
033	1933	Spray Equipment
034	1934	Equipment Shed
035	1933	Sweet Potato House
036	1933	Fertilizer Storage

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North Farm Survey District
Beltsville Agricultural
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name of property
Prince Georges, Maryland
county and State

037	1933	Garage & Storage Shed
038	1933	Potato House
039	1933	Bulb House
040	1933	Fruit Storage
041	1943	Solvent Storage
043/ 046	1958	Laboratory Building for Crops and Research Division Radioactive
044	1958	Soils Laboratory (Radio.)
046	1958	Office Building for Crops Research Div. (Entomology)
046A	1965	Cement Block Building Crops Research Div/ Light & Plant Growth
047	1960	~~Seed Storage Laboratory/~~Entomology Lab Building
047A	1965	Color Laboratory/Livestock/Meat
048	1960	Office Building
049	1961	Seed Laboratory
049A	1969	Screen House
050	1949/62	Div. of Soil Management Headhouse and Greenhouse/Range 4

Construction History and Use of Individual Buildings.

Building 001

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The South Laboratory[19] (Building 001) was one of four laboratory/offices constructed at the North Farm to replace existing structures located at the Department of Agriculture Bureau of Plant Industry Arlington farm facility in Arlington, Virginia. Construction of the building began in 1941; it was completed in 1942.

The building was originally planned as a laboratory building for the Forage, Tobacco, Sugar, Cereal, Rubber, and other units. (An herbarium and herb rooms dropped out during the planning process.) Cereal crops work that was conducted in Building 001 encompassed the work of numerous important plant breeders, including corn work conducted by G.F. Sprague. Early work on one of the major crop diseases in the world, wheat rust, was conducted in the 1940s in the building by Dr. "Roody" Rodenheiser. Work conducted in the building on oats by H.C. Murphy, related to the crossing of wild oats from the Mediterranean region to establish strains of oats that were resistant to crown rust. His work brought to light thousands of new strains of oats. These new strains and others were maintained in the ARS' Small Grains Germplasm Collection beginning in 1948. What is now the single largest collection of grain seeds from around the world was originally housed in the basement of Building 001.

Building 002

At the time it was constructed, the Cold Storage Building[20] was considered to be one of the best equipped of such laboratories in the world. The building was constructed by John McShain, Inc., of Baltimore, Maryland, and occupied in December 1939. McShain was one of the major New Deal-era contractors in the Washington area.

Research conducted in Building 002 was aimed at studying how to extend the keeping qualities of fruits and vegetables through varying temperature,

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[19]The South Laboratory Building was also known at various times as Building "C" and Building No. 4.

[20]The Cold Storage Building was also known at various times as "the South Wing of the Administration Building" and Building No. 3.

humidity, and certain treatments (such as wax coatings, etc.). Research papers that were produced by the scientists working in Building 002 produced recommended appropriate temperature ranges for hundreds of different types of produce. As the site of the offices and home bases of the Branch Chief and Investigation Leaders, Building 002 was also the symbol of the nation-wide research on the subject. The building itself was designed with 22 temperature-controlled rooms which produced temperatures ranging from -15 degrees to +110° F. Each of these rooms had a capacity of approximately half a carload. The building also held a ripening room, where temperature and humidity are automatically maintained, and a fruit and vegetable washing and packing facility.

Building 003

The Administration Building[21] (Building 003) was one of four laboratory/offices constructed at the North Farm to replace existing structures located at the Department of Agriculture Bureau of Plant Industry Arlington farm facility in Arlington, Virginia. Construction of the building was begun in 1942 and completed in 1943. The building was planned for, and first occupied by, the administrative offices of the Plant Industry Station, as well as other Bureau of Plant Industry offices including some of the offices of the Division of Cotton and Other Fiber Crops. It also was designed to include the Bureau of Plant Industry library and auditorium. Most of the usable space was occupied by offices. Although a number of different offices moved from and to the building throughout its years of occupation, its main administrative function has remained constant. After 1972, with the restructuring of all ARS research into geographical "areas," Building 003 became the administrative center for BARC as a whole, which was one of the ARS's eight nationwide geographical areas.

Building 004

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[21]The Administration Building was also known at various times as "Building 'A'" and Building No. 6. Building 004 also held Bureau of Plant Industry Offices prior to the onstruction of Building 003, so for a short period it too was referred to as the dministration Building.

The Horticulture Building[22] (Building 004) was the first major building to be constructed at the North Farm. The building was constructed by the North-Eastern Construction Company of Baltimore and officially occupied January 11, 1935.

The building was constructed to hold the offices of the Horticultural Field Station, a part of the Division of Fruit and Vegetable Crops and Diseases. It was first occupied by a variety of scientists of the Division who were moved from offices in Washington. For much of its history the building was used for research related to horticulture and fruit. It housed the offices of fruit researchers Frederick V. Coville and George Darow who were responsible for much of the important blueberry research conducted at the farm. It was also the site of important nutrition work, such as that conducted by George Magnus who used a method of leaf analysis to determine the necessary amount of potassium for certain fruits. Work related to ornamental production such as daylilies and azaleas was also conducted in the building.

Building 005

The North Laboratory[23] (Building 005) was one of four laboratory/offices constructed at the North Farm to replace existing structures located at the Department of Agriculture Bureau of Plant Industry Arlington farm facility in Arlington, Virginia. The building, like the Administration Building, South Laboratory, and Soils Laboratory, was constructed by the J.D. Hedin Construction Company, located on Michigan Avenue, N.E., in Washington, D.C. Construction of the building began in 1941; it was completed in 1942.

The first occupants of the building were the offices/labs of the Divisions of

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[22]The Horticulture Building was also known at various times as Building 1, and the North Wing of the Administration Building. Because it also held Bureau of Plant Industry administrative offices prior to the construction of Building 003, it too was referred to as the Administration Building.

[23]The North Laboratory Building was also known at various times as Building "B" and uilding No. 5.

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Soil Survey, Plant Exploration and Introduction, Forest Pathology, Dry Land Agriculture, Irrigation Agriculture, Mycology and Disease Survey, and part of the rubber investigations. More recently, it housed work related to entomology. Particularly well-known was entomological work conducted in the 1950s and 1960s related to biological control of insects to provide an alternative to pesticides.

Building 006

The Fruit Products Laboratory[24] (Building 006) was one of the first three buildings constructed at the North Farm. The building was constructed in part by the Laacchi Construction Company, Baltimore, Maryland, and occupied in August 1935. The building was planned to provide space for the Potato Disease Division, as well as the Fruit and Vegetable Sections, "to provide facilities for work in preservation of fruits and vegetable by canning, freezing, and drying, for the making of unfermented and fermented fruit juices, and laboratories for the fundamental investigations on the various phases of manufacture and utilization.[25]

Plans for the building indicate that there was originally intended to be research related to the production of alcohol conducted in the building. Numerous anecdotal sources have suggested that with the advent of prohibition it was decided that such research would be inappropriate in federal buildings. However, plans for the building date to 1934, the year after the repeal of prohibition so although negative reaction to the federal government funding research related to alcohol production may have influenced changes to the design of the building, this was not a function of the legal mandates of prohibition.

The building was then used in part by researchers in the area of phytochrome, the most notable of which was Dr. Harry Borthwick. One of the most innovative experiments in this area involved the setting up of a large prism

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[24]The Fruit Products Lab also known at various times as the West Building and Building No. 2.

[25]NARA, RG 54, Entry 151A, Box 1.

in the basement of Building 006. With the incoming white light broken up into its component colors, plants were placed to catch the individual colors of lights. The results of their growth, fruiting, etc., were then compared.

Building 007

The Soils Laboratory was one of four laboratory/offices constructed at the North Farm to replace existing structures located at the Department of Agriculture Bureau of Plant Industry Arlington farm facility in Arlington, Virginia. The building, like the Administration Building, and North and South Laboratories, was constructed by the J.D. Hedin Construction Company, located on Michigan Avenue, N.E., in Washington, D.C. Construction of the building was begun in 1942 and completed in 1943. Although a variety of soil-related research was conducted in the buildings over the years, one type of research related to nitrification. Specifically, work conducted in the buildings by Dr. Cecil Wadley in the 1950s related to how to determine the ~~necessary~~ nitrogen necessary for specific crops given existing nitrogen in the soil and in the water. This research was important to an understanding of ways to prevent runoff.

Building 009

Range 3 (Building 009) was constructed to replace existing greenhouses located at the USDA's Arlington farm facility in Arlington, Virginia. The general contractor for the building was the C.M.H. Construction Company of Washington, D.C. Lord and Burnham of Irvington, New York, were the contractors for the superstructure of the six greenhouses. Although one of the greenhouses (#5) was occupied in November 1941, final payment for the project was not made until February 1943. An innovative feature of the building is the provision made for controlled temperature rooms, located in the basement section of greenhouse #1. Since its construction, the building has been in continuous use as experimental greenhouses and associated laboratory, office, and potting space. Research in the building has related to forage crops, tobacco, sugar crops, and alfalfa.

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Building 010

Range 2 (Building 010), which originally consisted of a headhouse, five attached greenhouses and a palmhouse, was one of the first handful of buildings constructed at what was then known as the Plant Industry Station. It was constructed to replace greenhouses located on the National Mall in Washington, D.C. Contractor for the headhouses and structure was Victor R. Beauchamp Inc. of Crittenden Street in Washington. The contractor for the greenhouses and palmhouse was American-Moninger Greenhouse Manufacturing Corporation, located in Brooklyn, New York.[26] When the building was constructed, its greenhouses (no longer standing) employed a number of innovative improvements, including basement sections that provided constant temperature and light relation rooms. The size of the greenhouses was also innovative; they were large enough to permit scientists to conduct statistically valid experiments using Latin squares. By the early 1950s, the building was used for nematology research. Beltsville has been called the "cosmic center" for the study of Nematodes (or eelworms), which are parasitic unsegmented worms that live in soil, water or plants.[27] Nematodes are a concern to plant scientists because they often parasitize plants or are associated with plant disease. Over the years, USDA researchers have lead the field in developing control methods for nematodes. In the 1960s, the Range was the location of the North Farm's cafeteria.

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[26]The contractor for the electrical, heating, and plumbing work was Robert Anderson, of Washington.

[27]Michael Olmert, "Genes and Viruses are Harnessed on a Farm Tended by Scientists," Smithsonian Magazine, March 1982. Current ARS research on nematodes includes study of their benefits, such as their ability to attack the corn rootworm.

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Building 011

Range 1 (Building 011) was one of the first buildings constructed at the Plant Industry Station.[28] The east half of the building was completed by 1935 and it was to become the model for later greenhouses on the site. Although very little information about the building and its construction has been uncovered, one interesting aspect of its design is the unusual angled layout of the greenhouses -- likely a way of maximizing light coming into the greenhouses. The west half of the range was completed in segments spanning over thirty years. Since its construction, Range 1 has been used largely for fruit and vegetable research. The older section of Range 1, however, was also used for significant work on photoperiod, conducted by Dr. Harry Borthwick. Dr. Borthwick was an early pioneer in research related to photoperiod and phytochrome. Today, the east section of Range 1 is being used mostly for citrus research. (It was formerly used for apple, bean, potato, and tomato research.) The west section is currently used for potato, soybean, and alfalfa research.

[28]Building 4 (the Horticulture Building) was constructed roughly contemporaneously, and it is not clear which building was actually completed first.

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Oral Interviews

Telephone and/or in-person interviews conducted by Carol Hooper with the following ARS/Beltsville/North Farm employees or former employees:

Dr. Miklos Faust 6/8/95
Joseph Graham 6/5/95
Harold Winters 6/12/95
Jim Elgin 6/5/95
Dr. L. W. Briggle 6/5/95
Howard Hruska 6/4/95
Dr. R.A. Kilpatrick 6/3/95
William Bailey 6/3/95
Mrs. J.O. Moseman 6/6/95
Mr. Robert Walker 6/22/95 (CCC landscape architect/supervisor)

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United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

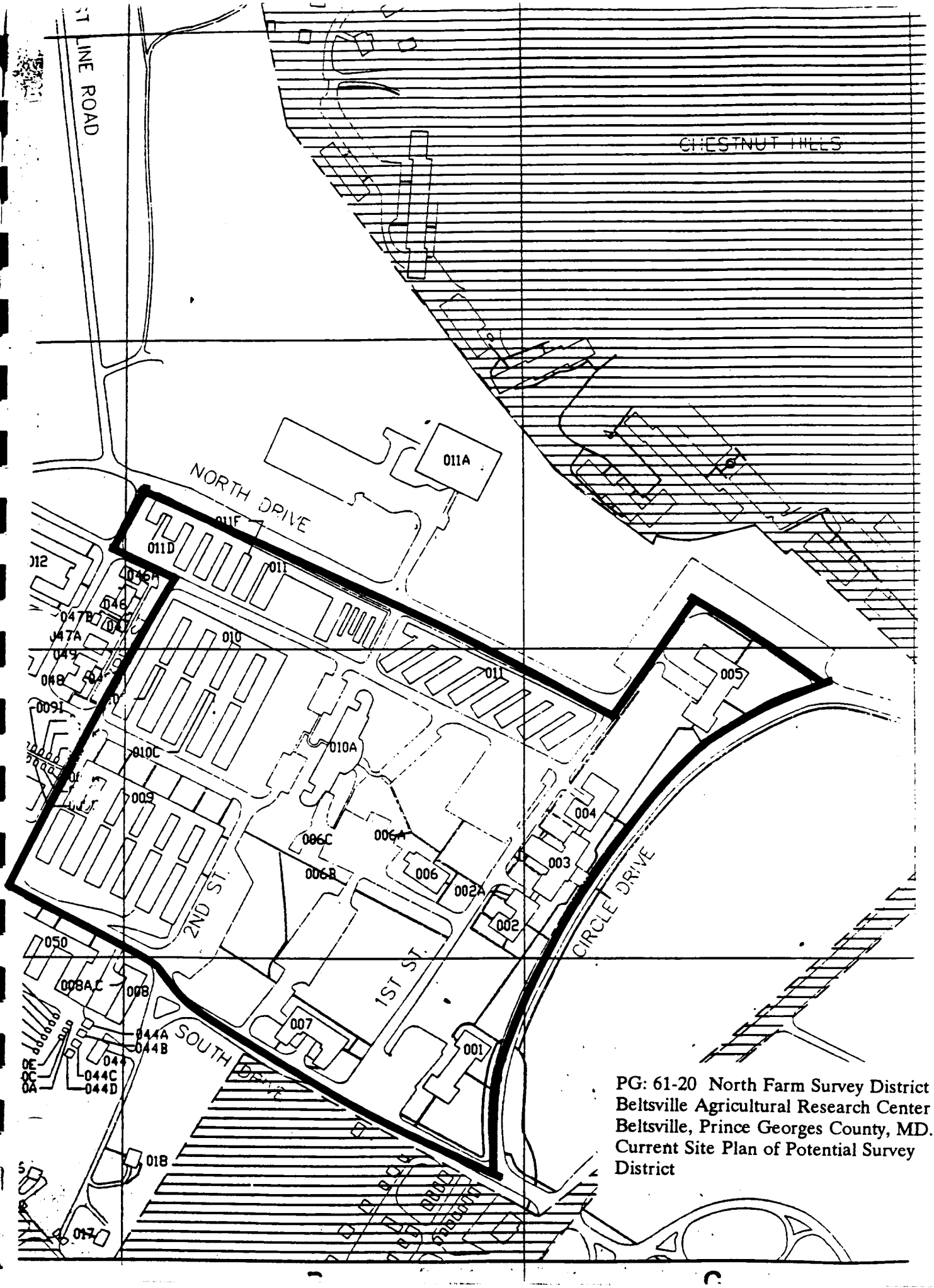
Section 9 Page 33

North Farm Survey District
Beltsville Agricultural
Research Center
name of property
Prince Georges, Maryland
county and State

Plans/Maps

1926	*Beltsville Experimental Farm & Vicinity.*
1928	*Key Map U.S. Animal Husbandry Experiment Farm.*
1932	*U.S. Animal Husbandry Experiment Farm, Beltsville, MD.*
1933	*U.S. Animal Husbandry Farm, Cooperating and Adjoining Units.*
1934	*U.S. Experiment Station, Sketch Study for Proposed Development of Property,* A.D. Taylor and Delos Smith.
1934	*Locations of PWA Projects.*
1934	*Project Locations, U.S. Experimental Station.*
1934	*U.S. Experiment Station, Sketch Study for Proposed Development of Property,* Revised Version (Showing sites of PWA projects).
1936/37	*A Pictorial Map of the National Agricultural Research Center.*
1938	*Location of P.W.A. and W.P.A. Projects, National Agricultural Research Center.*
1939	*U.S. Department of Agriculture National Agricultural Research Center.* (Updated to 1956).
194_?	*National Agricultural Research Center* (Soil Conservation Tract).
1943	*Plant Industry Station, Beltsville, Maryland.*
1949	*U.S. Department of Agriculture Beltsville Research Center.*

Plans for Buildings at BARC (located at BARC Building 0426)



PG: 61-20 North Farm Survey District
Beltsville Agricultural Research Center
Beltsville, Prince Georges County, MD.
Current Site Plan of Potential Survey District

PG: 61-20 North Farm Survey District
Beltsville Agricultural Research Center
Beltsville, Prince Georges County, MD.
1943 Site Plan of Bureau of Plant Indust
Facilities at North Farm

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1 MILE

3000 4000 5000 6000 7000 FEET

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ROAD CLASSIFICATION

Heavy-duty — Light-duty

Medium-duty — Unimprov

Interstate Route — U.S. Route

MARYLAND

QUAORANGLE LOCATION

ONAL MAP ACCURACY STANDARDS
GEOLOGICAL SURVEY
5, OR RESTON, VIRGINIA 22092
PS AND SYMBOLS IS AVAILABLE ON REQUEST

PG: 61-20 North Farm Survey Distric
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Beltsville, Prince Georges County, MD
USGS Map Beltsville Quadrangle
1964, Photorevised, 1979

PG: 61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD. Carol Hooper, September 1995, Maryland SHPO, Aerial View from SE. 1/11

PG:61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD, Carol Hooper, September 1995, Maryland SHPO, Aerial View from SE., 2/11

P6:61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD. Carol Hooper, September 1995, Maryland SHPO, ~~Aerial~~View from West. 3/11

PG. 61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD, Carol Hopper, September 1995, Maryland SHPO, Buildings 002, 003 & 004 from SE, 4/11.

PG: 61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co, MD., Carol Hooper, September 1995. Maryland SHPO, Circle Drive and Building 003 & 005 from NE. 5/11.

PG:61-20 North Farm ~~Historic~~ Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD., Carol Hooper, September 1995, Maryland SHPO, Rear of Buildings 003 & 006 from NE, 6/11.

PG:61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD, Carol Hooper, September 1995, Maryland SHPO, Rear of Building 011 to Right and 10A to Left 7/11.

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PG:61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD, Carol Hooper, September 1995, Maryland SHPO, North Drive with view of Building 011, 8/11.

PG.: 61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD, Carol Hooper, September 1995, Maryland SHPO, Building 003 from SE, 9/11.

PG:61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD.
Carol Hooper, September 1995, Maryland SHPO,
Building 002 from SE, 10/11.

P6: 61-20 North Farm Survey District, Beltsville Agricultural Research Center, Prince Georges Co., MD; Carol Hooper, September 1995, Maryland SHPO, Building 005, 11/11.

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2 Brick

3 Prince George Co, Md

4 Susan Taylor

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6 Md SHPO

7 Academy 1 of 2

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2 BARC

3 Prince Georges Co, Md

4 Susan Taylor

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6 Md SHPO

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1 RC 61 20
2 BPRG
3 Prince George Co, Md
4 Susan Taylor
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6 Md SHPO
7 Building 2 of 3
8 3 of 14

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6 Md SHPO

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6 Md SHPO

7 Boundary 9

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2 Bowie

3 Prince George's Co, Md

4 Susan Taylor

5 5/98

6 Md SHPO

7 Back of Greenhouse

8 11 of 14

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4 Susan Taylor

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6 MdSHPO

7 Building 11

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3 Prince Georges Co, Md

4 Susan Taylor

5 5/98

6 Md SHPO

7 Line of Greenhouses

8 13 of 14

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1 PG-61-20

2 BARC

3 Prince Georges Co. Md

4 Susan Taylor

5 5/98

6 Md SHPO

7 Building 14

8 14 of 14