

1. DESCRIPTION OF THE PROJECT

Delaware Department of Transportation plans to alter the highway entrances to Dover Air Force Base, as part of the Delaware Route 1 project. As a federal undertaking, the project is subject to Section 106 of the National Historic Preservation Act.

DeIDOT engaged Edward F. Heite, of Heite Consulting, Camden, Delaware, to conduct a Phase IA investigation of the proposed new roadways and related construction.

The project area consists of the immediate vicinity of the intersection of Route 113 and County Road 357, the Lebanon Road.

LEVEL OF AND REASON FOR SURVEY

The present investigation is part of the ongoing planning process connected with Delaware Route 1.

A map prepared in 1868 (Figure 2) showed several farmsteads in the general vicinity (Beers 1868). Farms in the immediate project area were identified by Beers as belonging to such well-known personalities as Gustavus George Logan, grandson of John Dickinson. Other properties in the vicinity included Elm Cottage, owned by heirs of Isaac Harrington, J. D. Kimmey's Cherry Dale, and D. C. Hoffecker's Troy farm, and properties owned by the locally prominent Wharton, Budd, and Postles families.

A previous study (Dames and Moore 1993) indicated the existence of several cultural resources in the immediate vicinity of the proposed intersection improvement.

The present Phase IA project was designed to locate and more precisely identify the features noted by Dames and Moore, and to locate any other cultural resources that might exist in the project's immediate vicinity.

A large-scale sensitivity survey by University of Delaware archaeologists, now housed at the State Historic Preservation Office (Figure 1), identifies much of the project area as having a high likelihood of containing prehistoric sites. This set of maps does not pinpoint expected site locations; instead, it identifies areas where a site might be found, if other factors are present. These factors include nearby water, well-drained soil, and a location on the edge of a resource area, such as a floodplain. Where these factors are present in a high-probability area, prehistoric sites are likely to be found on the most prominent or most elevated landform.

Since the project area is nearly dead flat, without geographical features and relatively far from water, there is no obvious "focal point" on which to expect a concentration of prehistoric activity.

The Phase IA investigation was therefore directed toward identifying documented or suspected historic-period resources in and around the project area.

GOALS FOR THE INVESTIGATION

This is a report of a Phase IA study, which can be the first step in a Phase I survey. Phase IA is a background study, designed to equip fieldworkers with information that will be needed for conducting a Phase IB reconnaissance survey.

The purpose of any Phase I survey is to identify all cultural resources that survive in the study area. It is not ordinarily the purpose of a Phase I survey to assess significance. Phase I field strategy, therefore, is designed to cover as much territory as possible, recovering small but meaningful samples from as many micro-environments and potential resource areas as possible.

If a Phase I strategy produces information that can be used to determine significance, this information is treated as an unanticipated bonus.

The Phase II strategy is defined as whatever is necessary to determine the significance of the property, in terms of the National Register.

GEOGRAPHY AND ENVIRONMENT

The project area lies in the coastal plain, near the edge of tide marshes. Its location, at the drainage divide of a "neck" of land, is one of the more favored agricultural situations in coastal Delaware.

Delaware's "necks" are long fingers of well-drained land, extending eastward to Delaware Bay. Their north and south limits are marked by tidal streams, which once were trafficways. St. Jones Neck is bordered on the north by Little River and on the southwest by St. Jones River. Smaller tributaries of these streams, with their marshy floodplains, funnel the road system down the spine of the neck. The project area is located on this spine of well-drained land between drainages.

Two historic roads intersect a short distance east of the project area. The older of these was the "Bay Road" from Dover to Kitts Hummock. This road probably developed during the late seventeenth century as a route from the Neck to the courthouse at Dover. The part of the Bay Road that passes through Dover Air Force Base is more recently known as Route 113.

The other road is newer. It connected Little Creek Landing with Florence, or Barker's Landing, on the St. Jones. When bridges were built at these places during the nineteenth century, this local road became part of a secondary north-south coastal route that crossed streams at their lowest bridges. It is now known as State Route 9.

The place where these two roads crossed was called Devil's Hill. The reason for this evocative name is not apparent.

Soils in the project area are well-drained and productive. They belong to the Sassafras-Fallsington Association, the favored agriculture ground in the region. Dominant soil types are Sassafras sandy loam and Matapeake silt loam, with 2% to 5% slopes. These old and stable soils are unlikely to have accumulated during Holocene times.

The likelihood of finding buried prehistoric horizons is, therefore, slender (Soil Conservation Service 1971).

PREVIOUS ARCHÆOLOGICAL WORK

Two recent archæological surveys have touched upon the project area. Dames and Moore, Inc., completed a Phase IA archæological assessment and predictive model of the entire installation in December 1993 (Dames and Moore 1993).

Dames and Moore identified several cultural resources in the immediate vicinity of the proposed construction, as follows

No.	Name	Dates of maps showing this	
14	Dr. J. G. Baker	1868	
44	G. G. Logan	1859	
42	A. Lofland	1859	
59	.unlabelled	1899	1936
60	.unlabelled	1888	1936
61	.unlabelled	1899	1936
90	.unlabelled	1899	
91	.unlabelled	1899	

This abundance of different labels for identical resources reflects the hazards inherent in trying to correlate old maps created to different scales and to different standards, without the benefit of professional evaluations. Several "unlabelled" sites clearly are the same as named properties, but the Dames and Moore maps are so crude that accurate determinations cannot be determined. A second general survey, by MAAR Associates, still is in draft (Payne 1994).

In connection with the present State Route 1 project, several studies have been undertaken. The first of these was a reconnaissance planning study of the broad corridor issued in 1984 by the Department of Transportation (Custer, Jehle, Klatka and Eveleigh 1984).

A Phase I survey in the right-of-way identified several historic sites near the project area, but none in the impact (Bachman, Grettler, and Custer 1988)

Phase II studies of historic sites in the selected route included the site of the Charles Kimmey toft (K-6440, 7K-D-119) and another house (K-493), just north of the project area (Grettler, Bachman, Custer and Jamison 1991:235-309).

CULTURAL AND HISTORICAL PLANNING BACKGROUND

Time periods applied in Delaware preservation planning (Herman and Siders 1986) reflect only feebly the actual history of Kent County. The state's generalized chronology is:

Exploration and frontier settlement	1630-1730
Intensified and durable occupation	1730-1770
Early industrialization	1770-1830
Industrialization and urbanization.....	1830-1880
Urbanization and suburbanization	1880-1940

Only one area of the state, between Wilmington and Newark, actually experienced these historical periods in exactly this sequence. In spite of their limited applicability to one small area, cultural resource investigations throughout the state are subdivided this way for the sake of uniformity.

Locally, other landmark dates are appropriate to mark division lines between similar expressions of historical periods:

Initial development.....	Settlement to 1730
Intensive and durable occupation	1730-1776
Early national period.....	1776-1800
Agricultural quiescence.....	1800-1870
Canned tomato era.....	1870-1940
Military period	1940-present

These revised time brackets were used to frame the present study.

RELEVANT HISTORIC CONTEXTS

Agriculture, and particularly agricultural tenancy, stand out as the dominant theme in St. Jones Neck history. A context study for tenancy was prepared by the University of Delaware Center for Historic Architecture and Engineering (Siders, Herman, et al., 1991). A context for archaeology of agriculture and rural life in New Castle and Kent counties was prepared by the University of Delaware Center for Archaeological Research (De Cunzo and Garcia 1992).

Transportation remains undefined among Delaware contexts. The planning

environment for this project area is therefore incompletely defined.

Delaware's "framework of historic context elements" (Ames, Callahan, Herman and Siders 1989:21) is arranged according to a group of 18 themes, ten of which refer to occupations, such as forestry and manufacturing.

PREHISTORIC BACKGROUND

People arrived in the Delaware Valley near the end of the last (Wisconsin) glaciation. Glaciers entrapped so much water that the ocean lay fifty miles east of the present Sandy Hook, New Jersey. As the glaciers retreated and the ocean advanced, the project area's ecology changed. With changes in ecology and population came changes in land use, which are reflected in the cultural record.

Mammoths, musk ox, horses, caribou, and walrus provided food for dire wolf, short-faced bear, and other predators. Man was among the smaller competitors in the tundra food chain, but his skills compensated for his physical shortcomings. Nomadic people of this Paleo-Indian period were among the most skilled makers of stone tools in the world. They would travel great distances to quarry the best flinty nodules and cobbles from which they made exquisite spearpoints, knives, and small tools.

Paleo - Indian hunting - gathering society lasted in the coastal plain until about 6,500 BC, when the Atlantic climate episode and the Archaic period of prehistory began. Northern hardwood forests had replaced the tundra, the ocean had risen, and the climate was warmer. Pleistocene megafauna were replaced by smaller game, which required different hunting techniques and tools. "Micro-band base camps" of this relatively arid period often are found on slight elevations above poorly-drained spots where game might have come to drink or feed. Even after the climate became wetter, people apparently continued to live on sand hills that formed near the basins.

Archaic people fashioned tools made of quartz, a material that is less tractable than the flinty cryptocrystalline silicate materials

that Paleo people had favored. Quartz is more readily available in the lower coastal plain than the more elegant flinty materials. Ground stone axes and other heavy tools appeared during this period.

By 3,000 BC, prehistoric society was decidedly different. Because people had stopped moving around so much, regional cultural differences began to appear in the artifact assemblages. Sedentary lifestyles ultimately led to horticulture, complex religious practices, and the accumulation of more, less portable, material goods.

The last prehistoric period, the Woodland, is characterized by larger groups of people living together in villages, using pottery and other heavy or fragile goods that would have been difficult to move from place to place.

The Delmarva Adena people, who lived on the peninsula early in the Woodland period, developed a highly sophisticated mortuary culture. One of their burial places was found on the bank of the St. Jones River immediately adjacent to the Dover Air Force Base.

The Woodland period people tended to concentrate in more or less permanent settlements at places with abundant multiple resources, such as sites adjacent to shellfish beds on the edges of salt marshes. These settlements, called "base camps," were generally occupied by one or a few extended families. They sent out hunting and gathering parties, but they seldom dispersed whole populations to live off the land in the manner of their hunter-gatherer ancestors.

These base camps were generally located, according to the accepted models,

near rich and diverse resource areas, such as the edge of a marsh. From an archaeological preservation point of view, this is unfortunate, since base camp locations often are desirable sites for real-estate development.

Near the project area, a large site, known as Carey Farm, may have been a base camp area, occupied over a very long time by a few families every year. This site lay immediately adjacent to the broad marshes of the St. Jones River, and probably was the residence of people who hunted and foraged in the project area.

REGIONAL OUTLINE HISTORY

Wherever the Europeans have settled, they have first built highly-organized towns on the frontier, projecting all the trappings and institutions of the mother country onto the wilderness. In Delaware, these highly-organized communities included fortified settlements at New Castle, Fort Christina, and several locations in Sussex County.

Pioneer farmers typically follow, after the soldiers have established an outpost of civilization. The first Dutch and Swedish settlements in the Delaware Valley conformed to the frontier model: they were compact and strictly regulated, and were supported largely by supply lines that brought necessities of life from Europe or from older colonies (Heite and Heite 1986).

International competition probably delayed the region's transition to the second phase of colonization, which was a less regimented period of agricultural development. Most of the other North American colonies moved to settle the

PREHISTORIC CHRONOLOGY

(After Custer 1986)

<i>Dates</i>	<i>Environmental Episode</i>	<i>Cultural Period</i>
8080 BC	Late Glacial	Paleo-Indian /Early Archaic
6540 BC	Pre-Boreal/Boreal Atlantic	Middle Archaic
3110 BC	Sub-Boreal	Late Archaic
810 BC	Sub-Atlantic	Woodland I
AD 1000		Woodland II
AD 1600		Contact

countryside within a decade after initial settlement. The Delaware coastal settlements, in contrast, clustered around their fortified command posts for at least thirty years. Not until the fall of New Netherlands in 1664 was the Delaware Valley finally able to realize its potential as an open, self-supporting, agricultural colony under a single European colonial power.

The major known settlements of the settlement period, in chronological order, were:

- 1626:** Dutch Fort Nassau on the Delaware River near Timber Creek at the present Gloucester, New Jersey and probably another poorly-documented outpost on Burlington Island upstream;
- 1629:** A palisaded Dutch whaling station on a tract called Zwaanendael or Swandendael, on the lower bay, now in Delaware, and believed to be in the present vicinity of Lewes;
- 1638:** Fort Christina, the capital of New Sweden, later the Dutch Fort Altena, now in the city of Wilmington;
- 1641:** A colony of Englishmen from New Haven who settled at Varckens Kill, now Salem River, New Jersey;
- 1643:** Printzhof, or New Gothenborg, on Tinicum Island, now attached to the Pennsylvania mainland, the home of Swedish Governor Johan Printz;
- 1643:** Swedish Fort Elfsborg on the Delaware River near the present site of Salem, New Jersey, in the modern state of Delaware, but on the east bank of Delaware River;
- 1651:** Dutch Fort Casimir, at the present site of New Castle, Delaware, established to counter the Swedish power;

1659: The Dutch West India Company fort at Lewes, at a known site on the present Pilottown Road in the city of Lewes, Delaware; and, finally,

1663: Cornelis Plockhoy's Dutch Mennonite settlement, also on the Swanendael territory and probably near the site of Lewes.

None were large: the principal fortifications probably did not measure more than 200 feet on a side. The total settled area on the Delaware between 1626 and 1664 did not exceed a few hundred acres, concentrated in seven locations.

Jurisdictional problems with the Maryland proprietors complicated development in lower Delaware. Maryland created an entity called Durham (or Essex) County, which pretended jurisdiction over much of the present Sussex and Kent counties. Some settlers, not sure which colony would ultimately control their homesteads, took out patents in both the Penn and the Calvert land offices. The battle was not finally settled until 1765, on the eve of the American Revolution, when a British court decreed the present western and southern boundaries of Delaware.

Kent County settlement began about 1670, when Robert Jones suggested settling the St. Jones valley with emigrants from Virginia. (Jackson 1983). By the time William Penn took possession of the colony in 1682, the present county had been established and the best land on St. Jones Neck was claimed. Among the first claimants were Walter Dickinson of Maryland, John Brinkloe, and John Burton, who would develop the prime farmland in the vicinity of the project area.

Walter Dickinson was one of the cautious settlers who claimed land on both sides of the peninsula, and retained status within both governments. When he died, he left his heirs with a string of properties from the present Jones Neck to the vicinity of Trappe, Maryland. His grandson, also named Walter, would own part of the project area.

First tobacco, and then grain, exports sustained the economy of Kent County. These crops brought prosperity to the landowners, who included several wealthy families. Two centuries later, descendants of the same families still owned much of Jones Neck.

The Revolutionary era saw Jones Neck men at the center of exciting change. The Dickinson brothers, John and Philemon, took leadership roles in three colonies. Philemon led New Jersey troops, and John was chief executive of both Delaware and Pennsylvania at different times. The Dickinson brothers also created the first non-sectarian public cemetery in Delaware.

Their neighbors to the north, Cæsar Rodney and his brother Thomas, also played on the national stage. Cæsar was a signer of the Declaration of Independence, commanded troops in the field, and held most of the public offices in Delaware during his long career that ended in his tragic death from cancer just as the Revolution was succeeding. Thomas made his mark in the judiciary after the war. Lesser-known Jones Neck residents also bore arms. Yeoman farmers like Robert Graham, whose grave recently was identified nearby, joined the cause.

These stirring events occurred elsewhere, however. On the ground in Jones Neck, the evils of absentee ownership would soon become apparent.

During the period after the Revolution, Delaware farmland declined. Neglect, ignorance, and the disinterest of absentee landlords conspired to reduce the prosperity of Delaware agricultural areas. Early in the nineteenth century, a few educated farmers began to introduce new methods that eventually had a lasting effect on the landscape.

Agricultural societies during the nineteenth century brought innovation to agriculture throughout the state. These organizations sponsored contests for accomplishment in silk culture, fruit growing, and other areas of interest. Budded peach trees were among the innovations introduced during this period. Nurseries, orchards, and shipping facilities flourished;

peach farmers rose to dominate the agriculture scene before the Civil War.

When the Delaware Rail Road opened in 1856, Delaware producers gained access to national markets. Toward the coast, steamboat companies served communities that were not along the railroad. By the end of the nineteenth century, roads had been reduced to feeder status, and the railroads and steamboats dominated long-distance travel.

At about the same time, the Dickinson family estates in Jones Neck emerged from a long period of benign neglect. Large parcels were sold to resident farmers who were interested in trying new ideas.

Between the Civil War and World War II, the canning industry, especially tomato canning, was a dominant regional economic force. A plant at nearby Lebanon and another at Florence (Barkers Landing) provided an outlet for the project area's produce.

MODERN TRANSPORTATION

Coleman DuPont, whose father had operated a trolley company, understood the importance of transportation in the development of lower Delaware. Although he was a member of the triumvirate that ruled Delaware's premier upstate industrial firm, DuPont was a man of broad interests.

He proposed to build, at his own expense, an intermodal transportation system that would include a four-lane divided highway, electric railway tracks, and an outer shoulder for bicycles and horse drawn vehicles. Each downstate town would be bypassed, since the highway was envisioned as a through road from Wilmington to Selbyville.

This visionary plan was reduced in the real world by politics and local opposition. Four lanes were reduced to two. The light rail system was eliminated, and bypasses were abandoned. The new road was cut through some new rights-of-way, but it always provided for a parade of potential customers to drive, and potentially to stop and to shop, as they passed through each small town.

In spite of predictions that the wide right-of-way never would be used, DuPont went ahead and purchased the full width in some areas. He eventually was appointed the first chairman of the new Delaware State Highway Commission that accepted his money to finish a scaled-down parkway, but his dream eventually was vindicated

Completion of the north-south Parkway (Routes 13 and 113) in 1924 opened lower Delaware to highway traffic from upstate and points north. Motor commerce flourished, and settlements were no longer confined to a narrow band along rail and water corridors. People spread across the countryside in a disorderly suburban sprawl, but commerce coagulated predictably along the new corridors

The new roads also encouraged agriculture, and central Kent County farms enjoyed a period of prosperity as the chicken industry developed.

The old "Bay Road" from Dover to Kitts Hummock and the road from Barker's Landing (Florence) to Little Creek were among the roads that were upgraded.

The road from Little Creek was rebuilt as a nine-foot road in 1932 to its point of intersection with the Kitts Hummock or Bay Road, just east of the project area. A new Barker's Landing bridge facilitated construction of a new corridor, now Route 113. Through successive improvements, the road from Court Street in Dover to Little Heaven became part of the main route from Wilmington to the beaches.

At the beginning of World War II, the DuPont Parkway had been enlarged to a four-lane road between Dover and Wilmington. Its last four-lane section, between Milford and Georgetown, is now under construction, 75 years behind its founder's visionary timetable.

Bypasses around towns finally were set in place after World War II. The first Dover bypass, in 1952, relieved the Route 13 pressure on Governors Avenue. The new bypass skirted Dover's congestion, but it was not politically possible to restrict access. Smyrna and Dover transformed their bypasses

into commercial districts, which in turn became congested bottlenecks along the parkway.

Dualization of the Bay Road from Dover to Little Heaven drew the Route 113 traffic off its original route down Dover's State Street and through the town of Magnolia and the settlement of Rising Sun.

WAR AND ECONOMIC CHANGE

As World War II began, Dover was building its second airport. The first commercial airfield was located on the North Little Creek Road, now the Edgehill subdivision. The original hangar is now the *Dover Post* newspaper office.

To accommodate increased commercial airline traffic that was expected, the city of Dover bought farms along the Bay Road for an "aerodrome." When war broke out, the Army Air Corps took over the new facility and created a military installation.

After a near-complete postwar demobilization, the Dover Air Force Base of today was created from the remains of the old wartime post. Permanent construction replaced wartime temporary structures, and "the Base" became a permanent fixture in the Dover community. As aircraft grew larger and the installation's mission expanded, more space was required. Base expansion became a dominant theme in the subsequent history of the Dover area, which recently was designated a standard metropolitan statistical area.

Coastal Kent County was transformed agriculturally during the middle years of the twentieth century by two innovations: potato farming and wildfowl refuges.

When the rich farmlands of Long Island disappeared under postwar urban sprawl, potato farmers moved to Kent County, where growing conditions were similar. These newcomers, rich with money from suburban property settlements, introduced irrigation and other technological and business innovations to the broad levels of eastern Kent County.

Geese became big business with establishment of state and federal waterfowl management facilities, which began during the Depression and have continued expanding to the present day.

Hunters from Pennsylvania and the northern states discovered the abundant waterfowl of the Delaware marshes; farms around the perimeter of the wildlife refuges discovered a rich market, catering to hunters' needs.

The marshes, which Delaware farmers had labored nearly three centuries to drain, became assets to be encouraged and expanded.

West of the potato farms and goose marshes, the Route 13 corridor became clogged with sun worshipers trekking to the beaches. When they passed through Smyrna and Dover, vacationers clogged the old built-

up "bypass" sections of the highway, stalling local traffic. Industries were choked by tourist traffic, and economic development of the Dover and Smyrna area was threatened.

THE FINAL BYPASS

The state's response to this growing congestion is the State Route 1 project, formerly known as the Dover Bypass or the Route 13 Relief Route. Planning and development went on for more than thirty years. Unlike its predecessors, this highway is a limited-access corridor, with few ramps into the adjacent communities.

The toll road segregates local from through traffic, allowing vacationers to whisk along to the beach while local residents go about their business. The toll road ends at the northern side of Dover Air Force Base, but a limited-access Route 1 / Route 113 corridor continues to the beach area.