

### III. ENVIRONMENTAL, PREHISTORIC AND HISTORIC CONTEXTS

#### Environmental Context

The project area is located at the intersection of Route 41 and Brackenville Road. Two miles south of the town of Hockessin, the area is situated in the small section of northwestern Delaware that lies within the Trenton Prong of the Piedmont Physiographic Province. It is located north of the Fall Line close to the Red Clay and Mill Creeks. An unnamed first order stream drains the project area, which is a tributary of Mill Creek located less than one-half mile to the west. Mill Creek is part of the Christiana River watershed, which incorporates streams from both the Piedmont and the High Coastal Plain of Delaware.

The Piedmont in northern Delaware is composed of an assortment of crystalline rocks of igneous and sedimentary origin, which were heavily metamorphosed during the later Precambrian or early Paleozoic orogenies. In the western portion of the Delaware Piedmont, micaceous schists, gneisses, and migmatites of the Wissahickon formation predominate (Spoljaric 1972:3). The Wissahickon formation was originally a sediment composed of sandy, shaly and arkosic beds of varying thickness and composition. These sediments have been completely recrystallized and deformed by metamorphism, although occasionally the original bedding has been retained (Richards 1956:41). These crystalline rocks slope down to the south and southeast where they adjoin the Coastal Plain.

The soils in this part of New Castle County are generally of the Glenelg-Manor-Chester association, which consists of nearly level to steep uplands with well-drained and medium textured soils (Matthews and Lavoie, 1970). This association makes up around ten percent of the soils found within New Castle County. Within the project area the soils are listed as Glenelg and Glenville series.

The Glenelg Series consists of deep, well-drained, gently sloping to steep soils that occur on uplands of the Piedmont Plateau. These soils are the most extensive and most important soils for farming in the Piedmont part of the country and as a result large areas have been deforested for farmland. The Glenelg soils are fairly easy to work and their available moisture capacity is moderate to high (Matthews and Lavoie, 1970). In the spring they warm up quickly and are suited for most types of crops. A small section of the project area contains soils from the Glenville series. These soils range from moderately well drained to somewhat poorly drained soils that have a fragipan. These soils occur in depressions around the heads of drains, and along the upper courses of drainageways on uplands in the northern part of New Castle County. They develop in micaceous material that weathered mainly from mica schist. The Glenville soils are easily worked at a favorable content of moisture, but they are wet in the spring and slow to warm. These soils are limited for some uses by seasonal wetness, impeded drainage, the slow movement of water through the subsoil, the restricted depth of root zone, and in more sloping areas, the hazard of erosion (Matthews and Lavoie, 1970).

Native vegetation includes mixed hardwoods, mainly oaks but also includes tulip-poplar and maple. The project area includes the banks of a first order stream, which provides an ideal environment for small mammals, reptiles, amphibians, and fish to exploit on a regular basis.

New Castle County has a humid, continental climate that is modified because the county is near the Atlantic Ocean. The annual average temperature is about 54°F, with a temperature range from about 100°F in late July to 30°F in early February. The annual precipitation averages about 45 inches. Rainfall is generally well distributed throughout the year with August usually being the wettest and most humid. The prevailing wind is from the west to northwest, except in the summer when the wind is more southerly.

### Prehistoric Context

The regional Delmarva chronology will be employed in the discussion of the prehistoric background for the project area because most of the existing data for the state of Delaware, as well as settlement patterns, was a result of the work conducted by Custer and his associates (Custer 1984, 1989 and 1996).

**Table 1. Synthesis of Northern Delaware Prehistory**

<b>Environmental Period</b>	<b>Date Range</b>	<b>Traditional Eastern Chronology</b>	<b>Delmarva Chronology</b>
Late Pleistocene	13000 B.C. - 8000 B.C.	Paleo-Indian	Paleo-Indian
Early Holocene	8000 B.C. - 6500 B.C.	Early Archaic	
Middle Holocene	6500 B.C. - 3000 B.C.	Middle Archaic	Archaic
	3000 B.C. - 1000 B.C.	Late Archaic	Woodland I
Late Holocene	1000 B.C. - A.D. 1	Early Woodland	
	A.D. 1 – A.D. 1000	Middle Woodland	
	A.D. 1000 - A.D. 1600	Late Woodland	Woodland II

### Paleo-Indian (13,000-6500 B.C.)

The Paleo-Indian cultural period covers the Paleo-Indian and Early Archaic periods of the traditional eastern chronology. This period begins with the first evidence of humans in northern Delaware. During this period the glacial ice sheet had fully receded and the first 5000-years of Paleo-Indian are characterized by a cold and wet climate. Vegetation consisted of a mosaic of grasslands, deciduous forests and boreal forests. After 8000 B.C. a general drying trend is in evidence. Spruce and pine boreal forests with small amounts of deciduous trees dominated the mixed forest and grasslands.

New castle County and the Brackenville area, like much of the Middle Atlantic region, were characterized by a relatively complex set of overlapping environmental zones, providing a variety of subsistence resources for prehistoric peoples entering the area. Throughout this period the occupants of northern Delaware practiced hunting and gathering life ways focused around sources of stone for tools. Archaeological sites from this time period are usually identified by the presence of well-crafted stone projectile points usually made of high quality cryptocrystalline stone including chert and jasper. The points are characterized by a single long channel flake, or flute, removed from both sides of the point. These point styles are commonly accompanied by various scrapers and flake tools.

### Archaic (6500 BC – 3000 BC)

In the traditional chronology there is a break in cultural patterns beginning about 8000 BC, which corresponds with a general warming trend. Pine and northern hardwoods, particularly oak replaced boreal forests and open grasslands. In the Delmarva regional chronology, the Paleo-Indian and Early Archaic periods are combined under the single rubric of Paleo-Indian. Archaic populations continued the basic life ways of the previous period. Hunting and gathering continued as the basic subsistence pattern. Populations remained highly mobile in the archaic period but there is a noticeable change in the types of lithic materials being utilized. As people expanded into new environments, the focus on high quality lithic resources was lost. Tool kits of this period typically tended to be made from material that was expedient and locally available. Diagnostic stone tools include points with bifurcated bases, side-notched points, and various stemmed points. The Delmarva Regional Archaic period incorporates the Middle Archaic chronological period of the Traditional Eastern Chronology.

### Woodland I (3000 BC – 1000 AD)

About 3000 BC, the rate of sea level rise slowed and as a result riverine and estuarine environments to stabilize enough to support significant and seasonally predictable populations of shellfish and anadromous fish. There is an increase in the number of sites from this time period indicates a population increase. The inferred development of sedentism, from the number of complex sites found in this period, forms the basis of distinguishing the Archaic from the Woodland I Periods in the Delmarva region. The

Woodland I Period incorporates the Late Archaic, Early and Middle Woodland Periods of the Traditional Eastern Chronology.

Container technology evolves through this time period, beginning with steatite bowls and evolving into a ceramic industry. At first vessels were thick walled, undecorated and mirrored the shape of stone bowls. Through time ceramic vessels become rounded, are more refined and often decorated. Net sinkers, stone axes, and spear thrower weights and a wide range of stone points and blades are made during this period. Common point styles are stemmed, side-notched, and triangle points.

Native Americans adopted a more sedentary existence in the warmer and drier climate of the Middle Holocene. The oak and hemlock forests evolved into mixed vegetation of grassland, oak forest and hickory forests. Settlement during this period commonly consists of repeated reuse of campsites and semi-sedentary to sedentary small village sites along major drainages.

### Woodland II (1000 AD – 1600 AD)

Chronologically this part of prehistory is known as the Late Woodland. During the five hundred years of Native American life before their contact with Europeans many Native Americans gathered in small villages or hamlets. Most villages lay adjacent to major streams and rivers. By approximately AD 900, horticulture began to achieve a important role in the subsistence pattern across the Middle Atlantic region, but little evidence of these practices have been found in Delaware.

Smaller settlements probably continued to rely on intensive food gathering as the main route of subsistence. Temporally diagnostic artifacts of this late period include small triangular arrow and/or dart points, and various styles of ceramic. Ceramic vessels of this period are often highly decorated and are made in a wide range of shapes.

The disappearance of non-local influences on mortuary practices and absence of tools made from non-local stone imply a breakdown in extensive trade networks during the early portion of the Woodland II Period. The main Woodland II cultural complex is known as Minguannan which is distinguished by a ceramic type of the same name.

### **Historic Context**

In 1638 Swedish Lutherans founded New Sweden an erected a small village at Fort Christiana or Christianaham (Scharf 1888). The Swedish settlers did little to establish a central government, preferring instead to live in an agricultural hamlet system that afforded religious freedom. In 1651 Dutch settlers established Fort Casimir and New Amstel (New Castle) with the latter being used as their economic/commercial center. In a quest for land expansion and ownership they seized control of New Sweden in 1655. Their rule of New Sweden ended in 1664 when the English expanded into New Sweden. With the English settlers came an establishment of a central government, urban centers, and port trading with Philadelphia and street systems (Munroe 1979).

During the eighteenth century, Delaware was divided into political divisions referred to as “Hundreds”. During the period 1800-1830 there were 26 “Hundreds”. The project area is part of the Mill Creek Hundred. This division was originally included in the land granted to William Penn by the Duke of York in 1682. In 1700, Penn granted a 30,000-acre tract, consisting of the northern portion of Mill Creek Hundred, to his children William and Letitia. Eventually, this large tract was divided into smaller plantations and farms. Mill Creek was so named for the numerous mills located along its banks (Scharf 1888).

The early farmsteads and the Hundred’s few towns were linked by water routes and Native American trails. The stimulus to improve these trails was created by the need of Pennsylvania’s farmers to transport their wheat to Delaware’s shipping ports. A Native American trail was likely the precursor to the Newport and Gap Turnpike (Route 41). Sanctioned in 1808, this pioneer turnpike connected Lancaster, Pennsylvania to Newport, Delaware and spurred a boom in turnpike construction.

Agricultural reforms beginning in about 1830 led the Delaware Piedmont to become one of the leading agricultural regions in the United States. Reformers encouraged farmers to utilize and experiment with new drainage techniques, fertilizers, and machinery. Farmers in Mill Creek Hundred responded by taking up dairy farming. Because of the well-developed transportation system and the knowledge brought with the reform, they were able to supply large urban areas, such as Philadelphia and Wilmington, with fresh dairy products.

The project area is located in the crossroads village of Brackenville. Prior to the nineteenth century, there was sparse settlement of the site and surrounding area. Located at the intersection of the Newport and Gap Turnpike and Brackenville Road southeast of Hockessin, the village of Brackenville was established in the 1840s. According to nineteenth century maps, the village was comprised of approximately two dwellings, a hotel and a mill (Rea and Price 1849) (Figure 4). The development of such villages at transportation junctions was common throughout the state in the late eighteenth and early nineteenth centuries. Generally, these towns consisted of a tavern, bridge, grist or sawmill, store, and a few dwellings. The mill was owned and operated by a member of the Chandler family who also lived in a dwelling at 1939 Brackenville Road. The Chandler-Taylor House and its associated carriage house are named for long-term owners.

Important themes in the development of Mill Creek Hundred with an impact on its architecture include transportation, agriculture, and the settlement patterns of its early residents. The Chandler-Taylor property is ideally situated on this intersection. Deed records indicate that the house was built between 1810 and 1820.

This date of construction coincides with a rise in stone house building, the division of large farms into smaller ones, and an explosion in Mill Creek Hundred’s population. The gray and brown fieldstone seen at the Chandler-Taylor dwelling and carriage house was

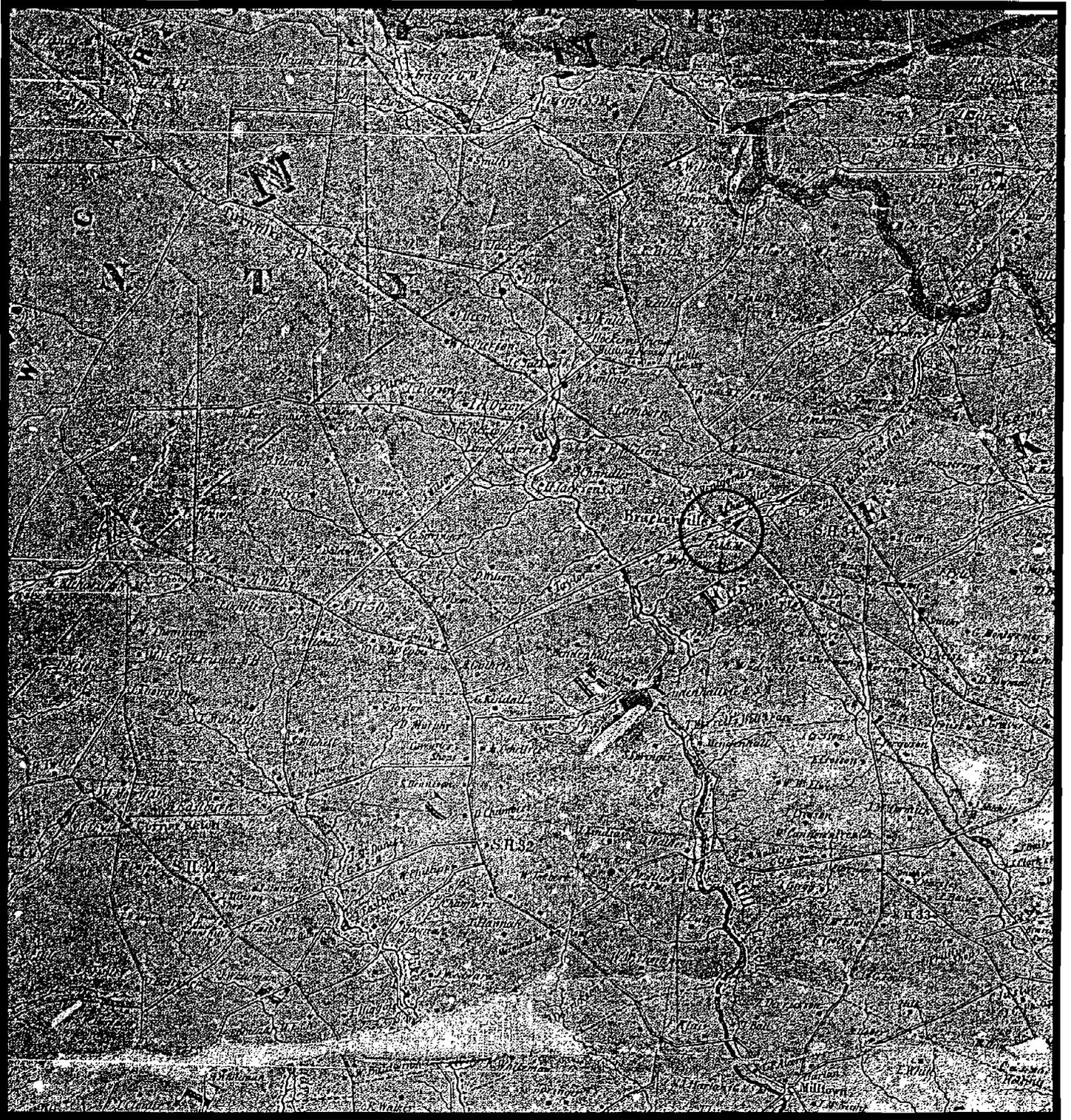


Figure 4 Section of 1849 Rea and Price Map

the choice building material in the northern part of New Castle County and was known locally as “Brandywine Granite.” The use of stone marks a transition in the architectural landscape from log structures to masonry, indicating the shift from a temporary to a more permanent architectural presence. The trend also represents a growth in the economy, largely due to the adoption of the dairy industry, and demonstrates the prosperity of area farms.