III. ENVIRONMENTAL, PREHISTORIC, AND HISTORIC CONTEXTS

ENVIRONMENTAL CONTEXT

The project area is located along State Routes 353, 352, 84, 368, south of State Route 26, in Sussex County. It is situated in the southeast portion of the county, within the Coastal Plain Physiographic Province, about two and a half miles west of the Atlantic Ocean. The Assawoman Canal is located approximately one mile to the east of the project area.

The five intersections tested during the Phase I survey contain soils of the Pocomoke-Fallsington-Evesboro association. Portions of the northernmost project area, towards State Route 26, fall within the Evesboro-Rumford association. The former association is characterized by very poorly drained and poorly drained soils that have a moderate permeable subsoil of sandy loam or sandy clay loam, as well as excessively drained soils that have a rapidly permeable sandy subsoil (Matthews and Ireland 1974). This association accounts for nearly 12 percent of the total land area in Sussex County. Pocomoke and Fallsington soils in this association tend to occupy nearly flat areas and, due to excessive wetness, often require artificial drainage systems.

The Evesboro-Rumford association is characterized by excessively drained and somewhat excessively drained soils that have a rapidly permeable subsoil of sand to sandy loam. These soils occur on nearly level to gently sloping landscapes. This soil association is the most extensive, occupying approximately 47 percent of the total land area (Matthews and Ireland 1974).

PREHISTORIC CONTEXT

Jay Custer's regional Delmarva chronology (Custer, Coleman, and Jaggers 1988) will be employed in the discussion of the prehistoric context for the project area.

Paleo-Indian (12,000–6500 B.C.)

The Paleo-Indian cultural period encompasses the final disappearance of Pleistocene glacial conditions and the emergence of more modern Holocene environments. A distinct feature of this period is an adaptation to cold and alternately wet or dry climates. Spruce and pine boreal forests with small amounts of deciduous trees dominated and provided optimal habitats for game animals. The hunting and gathering lifestyle of the Paleo-Indian period necessitated a specialized tool kit. Archaeological sites from this time period are generally identified by the presence of well-crafted projectile points made from high-quality lithic material, including chert and jasper. Many Paleo-Indian sites are noted in the Delaware Coastal Plain and are often associated with poorly drained swampy areas.

Table 3.1 Synthesis of Northern Delaware Prehistory

Environmental Period	Date Range	Traditional Eastern Chronology	Delmarva Chronology
Late Pleistocene	13,000–8000 B.C.	Paleo-Indian	Paleo-Indian
Early Holocene	8000–6500 B.C.	Early Archaic	
Middle Holocene	6500–3000 B.C.	Middle Archaic	Archaic
	3000–1000 B.C.	Late Archaic	Woodland I
Late Holocene	1000 B.C.–A.D. 1	Early Woodland	
	A.D. 1–1000	Middle Woodland	
	A.D. 1000–1600	Late Woodland	Woodland II

Archaic (6500–3000 B.C.)

Forests of oak and hemlock characterized the environments of the Archaic period. Open grasslands became sparse, which in turn caused the extinction of many of the grazing animals hunted during the Paleo-Indian period. A rise in sea level associated with the beginning of the Holocene in Delaware resulted in a general rise in the local water table, also creating a number of large interior swamps. These swamp settings were able to support large base camps. Small procurement sites in bay/basin areas, favorable for hunting and gathering, are known in Delaware's Coastal Plain region. Tool kits from the Archaic period are less specialized than those from Paleo-Indian times. As people expanded into new environments, they took advantage of expedient, locally available material. Diagnostic stone projectile points associated with the Archaic period include bifurcate base points, side-notched, and various stemmed points. Plant processing tools such as grinding stones, mortars, and pestles were also part of Archaic tool kits.

Woodland I (3000 B.C.–1000 A.D.)

Dramatic environmental and climatic alterations are evident in the Woodland I period. Grasslands became common once again and sea level rise had decreased, resulting in stabilized riverine and estuarine environments, which allowed for seasonally predictable populations of shellfish and anadromous fish. Floodplains and estuarine swamp areas became important settlement locations for larger base camps. Several sites of this type are evident in the Delaware Coastal Plain, including Barker's Landing, Coverdale, Hell Island, and Robbins Farm. A relatively sedentary lifestyle was established by the end of the Woodland I period. The tool kit from this period exhibits not only variations from previous Archaic tool kits, but also the evolution of container technology with the addition of stone and, subsequently, ceramic

containers. These vessels were made for more efficient cooking and may have also doubled as storage containers. Common point styles from this period are triangular, stemmed, and side notched.

Woodland II Period (A.D. 1000–1650)

During this time, agricultural food production systems began to achieve a more important role in the subsistence pattern across the Middle Atlantic region; however, in the Delaware Coastal Plain, there is little evidence of this trend. Hunting and plant utilization remained the dominant subsistence methods from this period up to European Contact. The disappearance of non-local influences on mortuary practices and a breakdown of trade and exchange networks mark changes in social organization during the Woodland II period.

HISTORIC CONTEXT[1]

Sussex County is Delaware's largest and southernmost county, with an area of approximately 950 square miles. Maryland bounds the county to the south, Delaware Bay and the Atlantic Ocean to the east, Kent County to the north, and Maryland and Kent County to the west (Scharf 1888). The county is comprised of 13 hundreds, political units William Penn instituted. These hundreds include Lewis and Rehoboth, Georgetown, Cedar Creek, Broadkiln, Indian River, Northwest Fork, Broad Creek, Nanticoke, Seaford, Little Creek, Dagsborough, Baltimore, and Gumsborough (Figure 3.1). The State Route 26 Alternate project area falls completely within Baltimore Hundred in the southeasternmost part of the county.

In 1638, Swedish settlers established Fort Christiana in present-day Wilmington, Delaware. The first settlement in Sussex County was established in 1659, at the site of the town of Lewes, then called Hoerenkill (Hancock 1976). In subsequent years, the settlement grew to include agricultural lands managed by Cornelius Plockhoy. Dutch authorities at New Amstel (New Castle) controlled Sussex County until 1664, when possession of the territory passed to the English (Scharf 1888).

Shortly after the English laid claim to the region, disputes over the actual boundaries began. Lord Baltimore of Maryland challenged the claim and, in 1672, sent Captain Thomas Jones to force settlers in Hoerenkill to pledge allegiance to Lord Baltimore or risk imprisonment and confiscation of their lands (Hancock 1976). In 1673, the Dutch regained possession of the region, until 1674, when it again returned to the English (Scharf 1888). Disputes with Maryland over the boundaries were finally settled in 1682, when all three counties in Delaware were deeded to William Penn. After receiving the charter for Pennsylvania in 1681, Penn was granted proprietary rights to Delaware in 1682 and established the lower three counties of New Castle, Kent, and Sussex.

1. This section is a brief overview of a more-detailed historic context developed by McCormick, Taylor & Associates (2002) for an adjacent project.

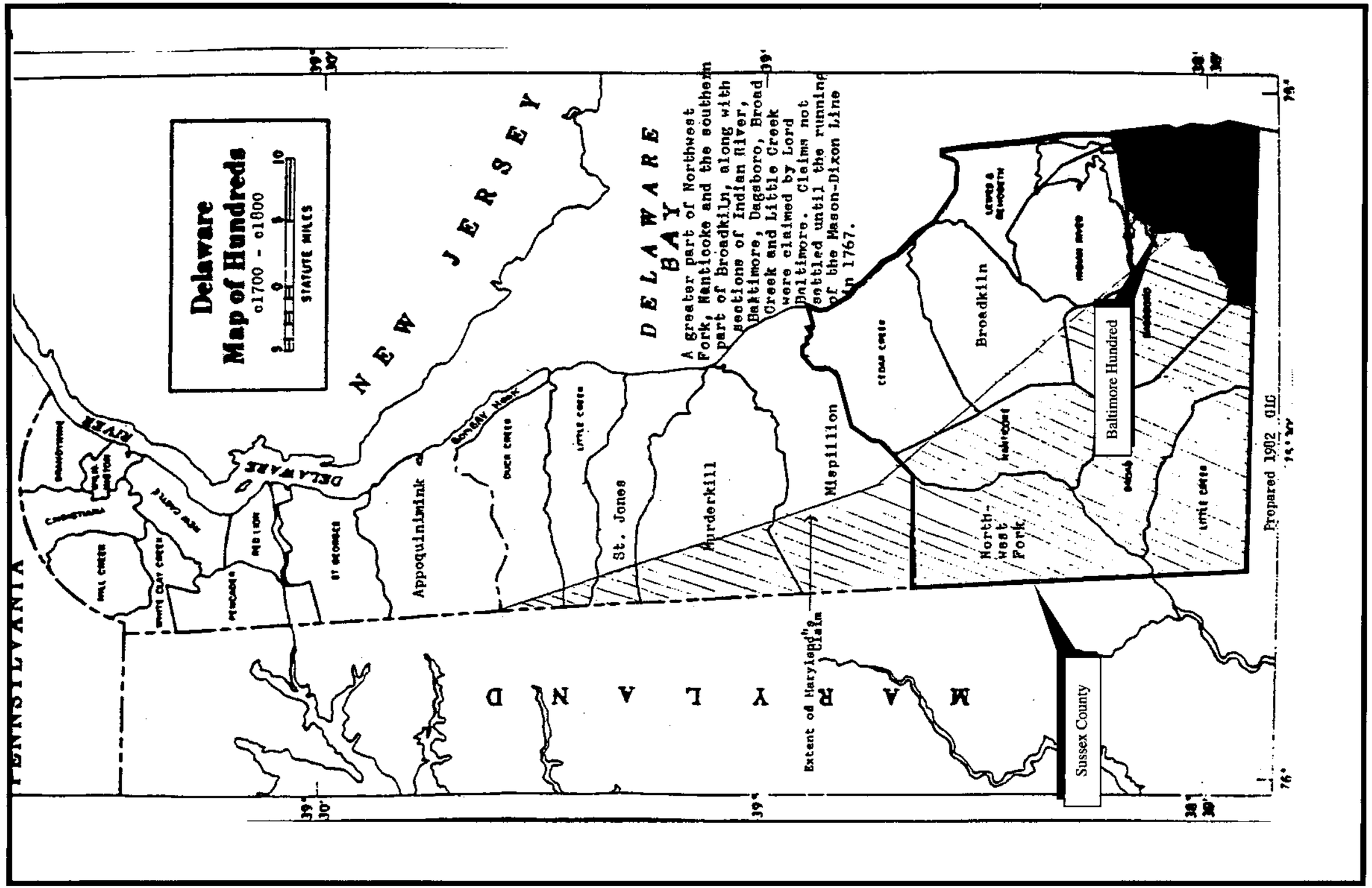

Figure 3.1 Map of Hundreds, Circa 1700–1800.

Although much of the boundary disputes with Maryland were settled with the land transfer in 1682, the boundary of Baltimore Hundred was not finally drawn until 1775, when Maryland finally relinquished its claim (Scharf 1888). Baltimore Hundred draws its boundary on the north with Indian River Bay, on the south with Maryland, the east with the Atlantic Ocean, and the west with Dagsborough Hundred. It is situated within both the Lower Peninsula/Cypress Swamp (Eastern) Zone and the Coastal Zone, as defined in the *Delaware Comprehensive Historic Plan* (Ames et al. 1989)

During the seventeenth century, forest wilderness and swamps dominated the landscape (Berger 1999). At this time, Lewis was the only town and, thus, the county's commercial and administrative center (Berger 1999). Transportation was limited to navigable waterways; therefore, most settlement developed along the larger creeks and rivers (Hancock 1976). As most of the land in the area was made up of low-lying swamp, settlers began to take measures to drain the land, which subsequently became some of the most fertile land in the hundred (Scharf 1888). The Beaver Dam Ditch Company was incorporated in 1865 to aid in the drainage.

Delaware was part of the principal food-producing area of the Eastern Seaboard. Principal crops grown by the local Swedish, Finnish, Dutch, and English farmers included corn, tobacco, rye, and barley. Most farms were located within 12 miles of navigable water, and the settlers focused their energies on establishing good roads, mills, and landings.

After 1763, iron processing began to take hold. Several forges and foundries were established throughout the county. Gravelly Delight, located on Gravelly Branch between Georgetown and Seaford, operated until sometime in the 1850s. Three generations of the Collins family—including Captain John Collins, his son Governor John Collins, and grandson Theophilus Collins—successfully ran Gravelly Delight (Hancock 1976). Despite economic growth brought about by the iron industry in Sussex County, population growth remained slow.

In the early part of the nineteenth century, salt was harvested along the coast, sold throughout the county, and shipped to major ports like Philadelphia and New York (Scharf 1888). Two salt "factories" operated at this time: one at the inlet to the Indian River Bay and another on Fenwick Island, which allegedly produced the salt for all of Baltimore Hundred around the time of the War of 1812 (McCormick, Taylor & Associates 2002).

Shipbuilding along the southern banks of the Indian River grew throughout the nineteenth century (Scharf 1888). One shipyard, Pennewell's Landing, was located in present-day Ocean View. The shipbuilding industry decreased following the Civil War. Settlers began to establish stores, craft shops (blacksmiths, tailors, etc.), and sail-making operations (McCormick, Taylor & Associates 2002).

Despite a strong movement away from slave ownership in the rest of the state, Sussex County had the highest concentration of African-American slaves. In 1810, Sussex contained more than half of all the slaves in the state (McCormick, Taylor & Associates 2002).

Agriculture remained a vital part of life in Sussex County throughout the nineteenth and into the twentieth centuries. Peaches were introduced into the state in 1832 and became a staple of the agricultural economy by the mid-1800s, spawning the canning industry in the 1840s

(McCormick, Taylor & Associates 2002). The construction of the Delaware Railroad facilitated the expansion of the peach-orchard economy; by 1850, orchards had begun to move south toward Sussex County (Hancock 1976). The peach industry was in full swing in Sussex in 1890, followed by a downturn around 1900 due in part to blight (Berger 1999). The railroad brought greater access to rarely seen areas; thus, several small towns—for instance, Roxana and Frankford—would form at railroad depots. The railroads carried information and goods to the area, slowly transforming rural Baltimore Hundred by "providing cheap, plentiful lumber to areas once limited by water transportation routes" (McCormick, Taylor & Associates 2002: 11). Nearby towns established around this time include Ocean View (then known as Hall's Store for the store that W. S. Hall opened there) and Clarksville, formally known as Blackwater.

Sussex County has a profusion of rivers and tidal estuaries fed by scores of streams with waterpower potential. The milling industry was, to say the least, very important to the development of Delaware and Baltimore Hundred. The agricultural industry drove the need for a place to process corn and grains being produced in the area; the great abundance of timber in the region allowed sawmills to flourish. Residents of Baltimore and Dagsboro Hundreds relied on gristmills to grind their corn meal. Larger, steam-powered mills in the railroad towns eventually drove the small local gristmills out of business. Two water-powered gristmills existed in Baltimore Hundred in 1850; however, by 1880, competition had forced them both to close. Five steam-powered sawmills were in operation in Baltimore and Dagsboro Hundreds by this time (McCormick, Taylor & Associates 2002).

Millville, at the northern edge of the project area, derived its name from George F. Townsend's steam-powered lumber mill located on the north side of State Route 26 west of Railway Road. Later a basket factory was added to the operation. Millville was incorporated in 1907. It has remained small and largely undeveloped up to the present day (Millville 2003).

Although the area was sparsely populated, more than a few roads weaved their way through Baltimore Hundred, connecting small towns and inland areas to the coast. By 1868, both State Route 26 and State Route 84 had been laid out and appear on the Beers map (Figure 3.2). The northernmost part of State Route 17 from State Route 26 to Burbage Road appears to have been laid sometime between 1914 and 1918. It does not appear on the 1914 *Farm Journal* map (Figure 3.3); however, it is present on the 1918 USGS Rehoboth quadrangle map (Berger 1999). All of the roads within the State Route 26 Alternate project area appear on a 1919 map of Sussex County (Figure 3.4). The majority of the roads in the project area were laid out at this time.

Baltimore Hundred remained relatively rural into the early twentieth century. Several small, linear towns grew up along the burgeoning roads system. As the number of roadways increased, the agricultural focus shifted to truck farming. Delaware is centrally located within the corridor of fertile land that supplies East Coast urban centers and towns. Perishable foods—such as fruits, vegetables, and poultry—became the focus of Delaware's commercial agriculture. Canneries that had begun processing the local peach crop in the mid-nineteenth century switched over to tomatoes, corn, and peas by the 1890s. The advent of frozen foods in the 1930s cut demand for canned vegetables. When the Ocean View tomato cannery burned down during this period, it was not rebuilt (McCormick, Taylor & Associates 2002).

Figure 3.2 Map of Baltimore Hundred Showing Project Area Vicinity (Source: 1868 D.G. Beers).

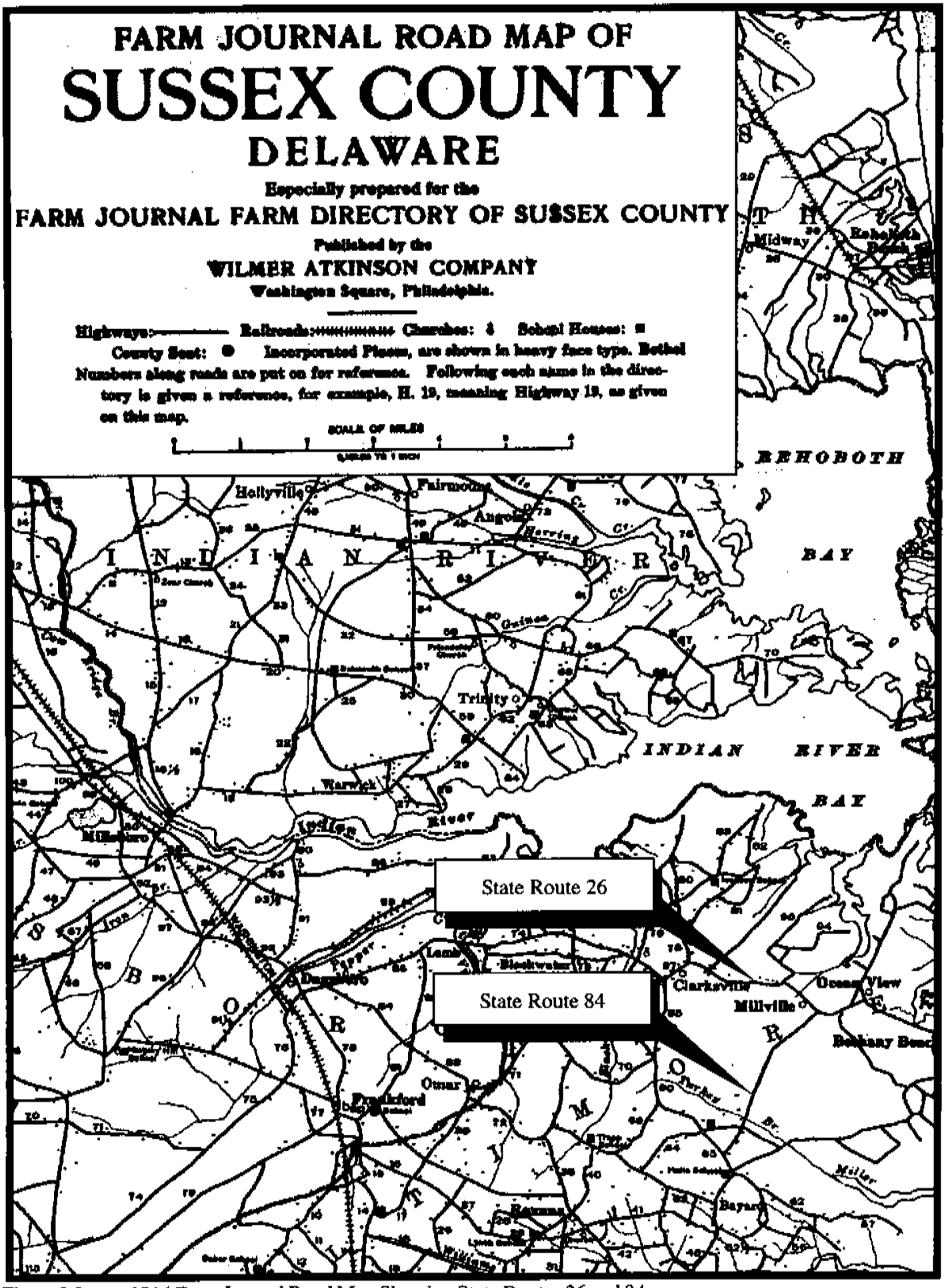

Figure 3.3 1914 Farm Journal Road Map Showing State Routes 26 and 84.

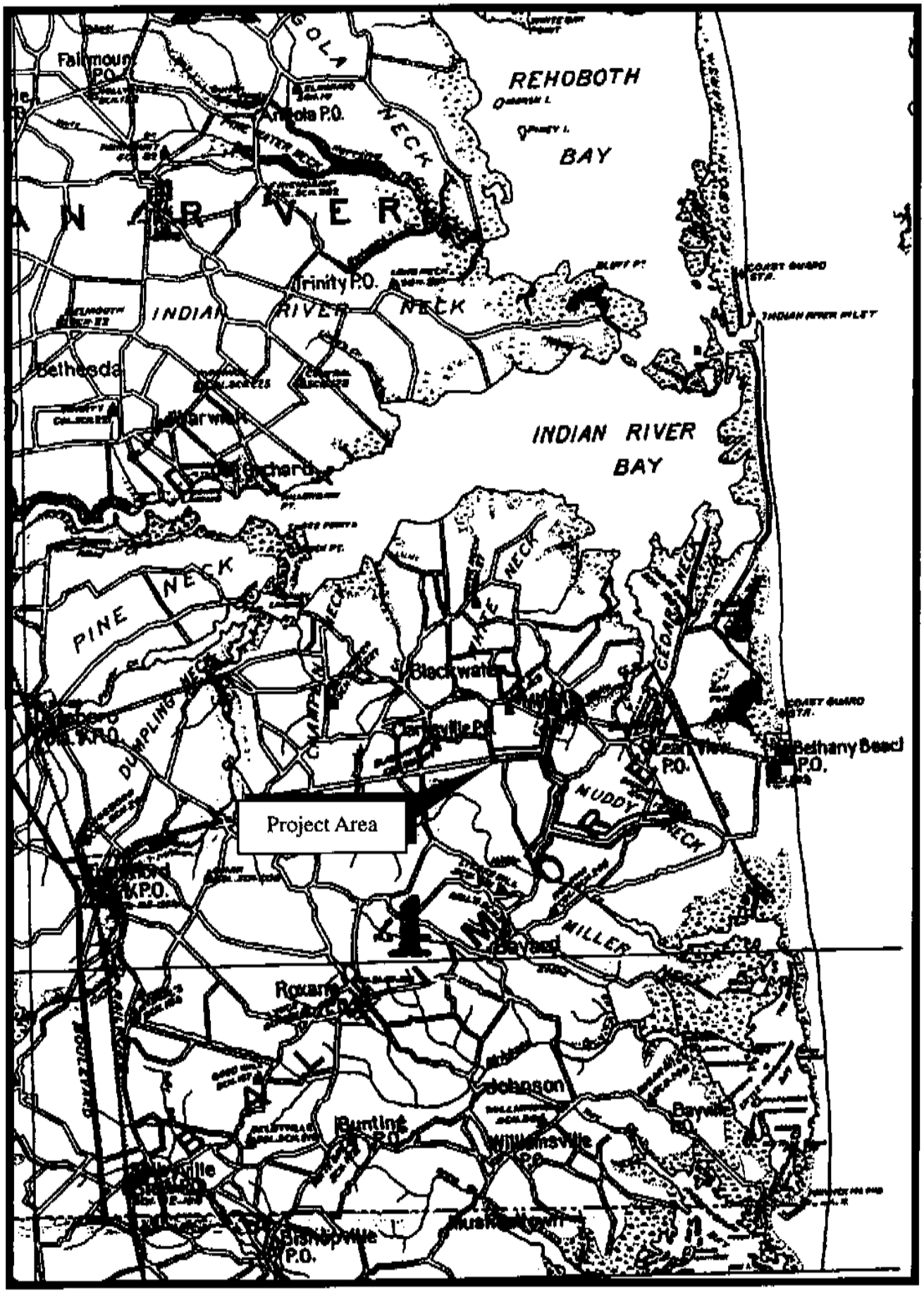

Figure 3.4 1919 Map of Project Area and Vicinity (A.H. Mueller, Phila.).

The egg and poultry industry, concentrated in Sussex County, boomed in the twentieth century. Cecile Long Steele, a housewife from Ocean View, is credited with starting the broiler chicken industry in Baltimore Hundred in 1923 when she received a larger shipment of chicks than expected. Her innovations in the raising and marketing of broilers (young birds weighing less than two and a half pounds) led to the expansion of the industry throughout the state. Cecile and her husband Wilmer pioneered the timing of raising fowl, beginning the broods in February, and experimented with the organization and sizes of poultry houses (Berger1995).

The Delmarva Peninsula offered the advantages of a temperate climate; low labor, building, transportation, and overhead costs; and well-drained soils that aided in disease control. The commercial egg and broiler farms prompted many farmers to turn their fields to corn and soybean production in order to meet increasing demands for poultry feed (McCormick, Taylor & Associates 2002).

The poultry boom provided both the local and state economy with a bulwark against the ravages of the Great Depression of the 1930s. Successful farmers altered or built new farmhouses. Old houses were readapted for use by an increasing number of tenant farmers. In the late 1920s, the chicken houses underwent a transformation from small, one-story frame structures to long, low, broiler buildings. Small second-story apartments were added onto central sections for broiler house workers. After World War II, technological changes in poultry production and—more directly—Hurricane Hazel's effects in 1954 supplanted the old-style broiler buildings with modern, efficient, stable, and sanitary poultry facilities. The poultry industry accounts for Sussex County's position among the top U.S. agricultural counties in terms of value production (McCormick, Taylor & Associates 2002).

The state highway program that had fostered the poultry industry in the 1920s also stimulated tourism and population growth in the region by facilitating access to beach resorts and market towns. Rehoboth Beach, located north of Baltimore Hundred, was founded in 1872 and became the focus of summer resort development along Delaware's shore. Nineteenth-century rail lines gave greater access to the Rehoboth area. In 1901, a Christian group founded Bethany Beach, located immediately east of the project area, as a summertime meeting camp. Completion of the DuPont Highway (U.S. Route 113) as a paved two-lane road in 1924 gave farmers and merchants in southern Delaware an efficient link to northern markets and gave tourists easy access to the state's beaches. The Civilian Conservation Corps' mosquito-control activities in the 1930s cleared the way for later shore development. Increasingly mobile, Americans flocked to Kent and Sussex County beaches after World War II, pushing development southward from Rehoboth into Dewey, Bethany, South Bethany Beach, and Fenwick Island. Delaware's beaches became the playground for the booming population of the Washington, D.C. area, as well as the home state crowd (McCormick, Taylor & Associates 2002).

Until recently, Ocean View was best known as the birthplace of the billion-dollar broiler industry. It remained a small town, only surpassing the 1,000 mark in the last population census. Early residents made their living from the sea, only two miles to the east, or the sandy soil, growing corn, tomatoes, strawberries, and peaches. The town, incorporated in 1889, remained a sleepy town on the way to Bethany Beach until the 1990s. Vacationers and retirees, finding crowded conditions and rising real estate prices in Bethany Beach, spilled over into Ocean View.

Ocean View's transformation from rural enclave to resort area became complete when the last remaining chicken house closed down in 2001 (Tresolini 2003).

Houses that appear on the 1868 Beers map along the section of State Route 84 within the project area belonged to "J. Betts," H. Johnson," and "J. Melson." The Melson and Betts homes were gone by 1914, and the east side of State Route 84 has since been developed into the Bear Trap Dunes Golf Course (Wilmer Atkinson Company 1914; see Figures 3.2 and 3.3). The Johnson property appears to be relatively intact on the north corner of the State Routes 352 and 84 intersection. A 1981 cultural resource survey identified a two-storied "T-shaped" house belonging to Arthur Clark that appears to be located on the site of the Johnson property (CRS #S-2342; Beers 1868).

The 1868 Beers map also shows one of the houses belonging to "L. Furman" in the location that the 1981 cultural resource survey identified a two-story modified rectangular frame dwelling owned by John Hall (CRS #S-2356) at the intersection of State Route 84 and County Road 368. The 1868 Beers map identifies them as belonging to "Jno. Melson" and "J. Mitchell." A 1999 survey identified a 1940s farmhouse on the site of the former Melson farm (CRS #S-9827). The cemetery that is presently located on Windmill Road (County Road 352), just south of Millville, was not indicated on the 1868 map (see Figure 3.2), but does appear on the 1981 edition of the USGS topographic Bethany Beach quadrangle map (see Figure 1.1).

HISTORIC ARCHITECTURAL RESEARCH DESIGN

The objective of the historic architectural survey is to identify all architectural resources 50 years in age or older in the APE and to determine if any such resources are eligible for listing in the NRHP. In the process, an appropriate historic context for the project area and specific evaluation criteria for expected property types is to be developed. Additionally, the resources will be placed into the proper historic context, including geographic zone, chronological period, and historic theme, as defined in the *Delaware Comprehensive Historic Preservation Plan.*

The first steps toward the development of a contextual analysis of historic resources in the project area consisted of a windshield survey and an examination of predictive materials at the DE SHPO. Initially, a field view of the project area, conducted in conjunction with DelDOT and DE SHPO, provided an indication of the historic resources located in the project area. URS then reviewed the historic building inventory file at DE SHPO to identify any properties previously surveyed in the project area. Six resources in the project area were previously surveyed in 1981. The survey forms, although rudimentary, provided additional indication of the historical development of the project area. (The NRHP eligibility of the resources was not assessed at that time.)

In addition, existing cultural resource studies and historic contexts were available for examination at DE SHPO. The built environment of Baltimore Hundred and Sussex County have been the subject of a number of historic studies and contexts, including *"Neither a Desert Nor a Paradise": Historic Context for the Archaeology of Agriculture and Rural Life, Sussex County, Delaware, 1770–1940* (DeCunzo & Garcia 1993), *National Register of Historic Places*

Eligibility Evaluation: Baltimore Hundred, Sussex County (Mulchahey et al. 1990), *The National Register and Baltimore Hundred* (Center for Historic Architecture and Engineering 1990), and *Adaptations of Bungalows in the Lower Peninsula/Cypress Swamp Zone of Delaware, 1880–1940 +/-* (Mulchahey et al. 1990). Also, McCormick, Taylor & Associates' (MTA) *S.R. 26 Planning Study* (Draft July 2003) provides a comprehensive historic context of the State Route 26 corridor between Ocean View and Clarksville, which is within one to two miles of the State Route 26 Alternative Routes project area.

The Center for Historic Architecture (CHAE) in the *National Register and Baltimore Hundred* (1990) identified four major architectural types in Baltimore Hundred: rural dwellings, farm complexes and outbuildings, rural commercial structures, and early-twentieth-century domestic architecture. Based upon this information, URS' review of the background material, and the windshield survey, the predictive expectation for property types found in the State Route 26 Alternative Routes project area consisted of rural dwellings and farm complexes dating from the nineteenth century and domestic architecture from the early twentieth century. There was no indication there would be rural commercial structures in the project area. In addition, it would be reasonable to expect dwellings and farmsteads dating from the nineteenth century to consist of vernacular folk housing types. Based upon the existing historic contexts, it was also clear that bungalows and related designs could likely be found in the project area. Thus, the historic contexts for the project area, as defined in the *Delaware Comprehensive Historic Preservation Plan*, are as follows:

Geographic Zone: Lower Peninsula/Cypress Swamp

Chronological Period(s):
1830–1880+/-, Industrialization and Early Urbanization
1880–1940+/-, Urbanization and Early Suburbanization
1940–1960+/-, Suburbanization and Early Ex-Urbanization

Historic Themes:
Architecture, Engineering, and Decorative Arts
Agriculture

Property Types:
Agricultural Complex
- Chicken House
- Small Barn

Nineteenth-Century Folk Housing
- I-House
- Hall-Parlor Plan
- Massed-Plan, Side-Gable

Early to Mid-Twentieth-Century Domestic Architecture
- Bungalow
- Minimal Traditional
- Ranch

MTA identified a number of property types along State Route 26 that would be expected in the State Route 26 Alternative Routes project area, including the Agricultural Complex, I-house,

bungalow, and Minimal Traditional property types.[2] The Agricultural Complex property type was identified via discussions between MTA, DelDOT, and DE SHPO in the course of the State Route 26 project. Much of the below discussion regarding this property type is derived from MTA. URS has elected to identify I-houses and related property types as examples of nineteenth-century folk housing, partially borrowing McAlester's phrasing ("folk houses") as a general term for vernacular dwellings. Additionally, twentieth-century property types, such as the bungalow and Minimal Traditional, have been grouped together as examples of "domestic architecture," a term utilized by Mulchahey et al. 1990.

Below is an identification and discussion of the property types expected in the State Route 26 Alternatives project area, as well as specific evaluation criteria that need to be addressed when assessing the NRHP eligibility of such a property type. The evaluation criteria define essential physical features and principal elements of integrity that need to be present for a resource to be found eligible for the NRHP. The specific evaluation criteria complement the NRHP Criteria for Evaluation (36 CFR 60).

PROPERTY TYPES

Agricultural Complex

The Agricultural Complex property type was identified by MTA in the State Route 26 project area and is an expected property type in the State Route 26 Alternative Routes project area. During that study, it was determined that agricultural properties would be evaluated functionally, rather than on style alone. MTA turned to DeCunzo and Garcia's discussion on Agricultural Complexes as part of their historic context on the archaeology of agriculture and rural life in Sussex County. DeCunzo and Garcia defined an Agricultural Complex as:

> [A] farmstead—the main compound on a farm—encompassing at least one dwelling along with domestic and agricultural outbuildings and the yards, gardens, and activity areas associated with them… The dwelling(s) may have housed the farm's owners, tenant farmers, farm managers, other relatives, and/or farm hands. Quarters, kitchens, smokehouses, milk houses, spring houses, wood sheds, ice houses, and other food and supply storage buildings number among the expected domestic outbuildings; agricultural outbuildings would include barns of different types, stables, cart sheds, granaries, hay barracks, hog houses, sheep houses, chicken/broiler house, and potato/root houses. In addition, the complex encompasses the utilitarian and nonutilitarian spaces and features directly associated with these buildings—landscaped lawns, yards, and gardens; kitchen gardens; work yards; animal pens; wells and other water sources; drives, lanes, and paths; and trash and others waste disposal areas and features (1993: 250).

2. DelDOT provided URS with an approved draft of the MTA study (July 2003) sans page numbers. Thus, all references to the MTA report are not page-specific.

Primary dwellings in Agricultural Complexes dating from the nineteenth century most likely were I-houses or some other form of folk housing. During the twentieth century, the bungalow served a similar purpose (dwelling house types are discussed below).

In the twentieth century, Agricultural Complexes in Sussex County began to experience change with the development of the broiler industry. DeCunzo and Garcia note that "in sheer numbers, poultry, especially chicken, dominated the barnyards of the County's farms throughout the period." Particularly in Baltimore Hundred, "poultry raisers... started experimental broods of broilers and were soon converting their facilities" (1993: 161). The ready adoption of the newfound industry altered the Agricultural Complex. MTA note chicken houses, small barns, granaries, and small equipment sheds as anticipated property types from this period. MTA identified the following forms of chicken houses: the early colony house (6 x 8, 8 x 8, or 8 x 12, often movable on sleds); the continuous house (20 x 80 or 25 x 200–25x1000, later examples with or without second-story apartments); chicken houses with second-story apartments (20 x 400–500); and pre-World War II multi-story chicken houses. Small barns were defined as one-and-a-half story, front-gable buildings, measuring approximately 20 x 20 and consisting of three types: gable-front barns, crib barns, and mixed-use barns.

Evaluation Criteria: Agricultural Complex. For an Agricultural Complex to be considered significant, it would need to retain an intact grouping of elements to connote its significance. However, MTA notes that, regarding domestic and agricultural outbuildings, "due to their often impermanent nature, weather events, and changes in agricultural technology, few are expected to survive into the twenty-first century." In essence, MTA is predicting that whole farmsteads, with a sizable number of outbuildings, would be rare. Ideally, the farmhouse, principal outbuildings (e.g., barns, stables, chicken/broiler houses), and some landscape elements, at minimum, would remain to allow the resource to be adequately defined as an Agricultural Complex. As stated in MTA, Agricultural Complexes "derive their primary definition and meaning from the function and activities that took place or continue to take place on them; the style and integrity of the dwellings and... domestic and agricultural outbuildings play a lesser role in assessing the eligibility of an Agricultural Complex." Thus, though a critical mass of buildings and elements need to be present, the integrity of the individual buildings is secondary to the integrity of the larger unit, the farmstead. As a result, setting and feeling are two principal elements of integrity that must be present for an Agricultural Complex to be considered significant.

A potentially eligible Agricultural Complex would be found eligible under Criterion A, as an example of broad patterns in agricultural development in Sussex County; or under Criterion C, if it embodies the distinctive characteristics of a type, period, or method of construction associated with Agricultural Complexes. As MTA notes:

> Agricultural Complexes merit consideration under... Criterion C... if the original fenestration and massing of a farmhouse remains, the positioning of agricultural structures in relation to the farmhouse is intact, open space around the farm is seen, or is currently being used for cultivation, and if the complex is able to sufficiently convey a sense and feeling of the "full landscape" of the broiler industry or another significant agricultural pursuit.

Evaluation Criteria: Chicken Houses and Small Barns. MTA defined evaluation criteria for both chicken houses and small barns:

> Eligible chicken houses should retain integrity of setting, design, feeling, association, materials and workmanship—since these chicken houses were routinely moved, bought and sold, a chicken house need not necessarily possess integrity of original location. A potentially eligible chicken house agricultural property type needs to be free of later additions and exterior alterations, of frame construction with a dirt floor, and ideally still used in some form of its intended agricultural capacity. Since surviving pre-1954 chicken houses are becoming rare along coastal areas in southeast Delaware due to changing technological needs for specific building types, weather events (such as Hurricane Hazel), tourism, and suburban development, preservation of these chicken houses is vital.
>
> Small barns... should retain integrity of setting, design, feeling, association, materials and workmanship, but need not always convey original integrity of location, as small barns were sometimes moved from one farm to another. Potentially eligible small barn resources should be free of unsympathetic twentieth and twenty-first century additions, constructed between c.1880–1940, and exhibit the gable-front barn, crib-barn, or mixed-use barn forms.

Potentially eligible chicken houses and small barns would be found eligible under Criterion A as examples of the broad patterns of the development of agriculture in Sussex County; or under Criterion C as examples of these property types that embody distinctive characteristics of a type, period, or method of construction associated with chicken houses or small barns. As well as being found individually eligible, these property types might also be found to be contributing resources to an Agricultural Complex.

Nineteenth-Century Folk Housing

McAlester identifies six distinctive families of house shapes that defined American folk housing up to the twentieth century: gable-front, gable-front-and-wing, I-house, hall-and-parlor, massed-plan side-gabled, and pyramidal (1984: 89). The I-house and hall-parlor plans were traditional British folk forms prominent in the southeast and Tidewater regions; gable-front and gable-front-and-wing plans were more common in the northeast. The expansion of the nation's railroad network in the mid-nineteenth century and the introduction of mass-produced materials, such as standardized sawn lumber and machine-made nails, altered the traditional building and construction techniques of folk housing. Nevertheless, traditional folk shapes persisted and were expanded via light framing techniques to include massed-plan (more than one room deep) forms, such as the side-gabled and pyramidal. Eventually, massed-plan houses "slowly replaced the traditional one-room-deep hall-and-parlor and I-house forms" (McAlester 1984: 98).

According to the *Historic Context Master Reference and Summary* (Herman et al. 1989), in its discussion of the architecture of the Lower Peninsula/Cypress Swamp Zone for the 1830–1880 +/- period:

> [B]y 1860... open-plan dwellings, which represented the dominant housing type in the preceding periods, were being enlarged or replaced by two-story, hall-parlor or center-passage, single-pile [I-house] dwellings with a complement of barns, corn cribs, stables, and sheds. In the decades following the Civil War, service functions that were formerly housed in various outbuildings were connected to the house (57).

Thus, it is common to find rearward extensions, as well as porch additions, to folk housing. Herman wrote of hall-parlor dwellings "modified by the insertion of stair passages, large gable-end additions, and attached kitchens and other service rooms" (1987: 182).

There are a number of dwellings in the State Route 26 Alternative Routes project area that are side-gabled, one-and-a-half to two stories, and one or two rooms deep. In general, these dwellings fall within three of the families defined by McAlester: I-house, hall-and-parlor, and massed-plan side-gabled. Below are brief discussions regarding these subtypes, as well as specific evaluation criteria for nineteenth-century folk housing.

I-House. The I-house is defined as a side-gabled house, usually one-and-a-half or two stories high, one room deep, and two rooms wide; the two rooms usually have an entrance hall between them containing a central stairway (Harris 1998:180). Kniffen found the subtype "abundantly and old in the Middle Atlantic states and the northern Tidewater South," and provides the following discussion:

> From section to section the I-house varied in construction material from brick and stone to frame and logs. Chimneys might be central, inside end, outside end, or paired on the ridge, with regional dominance of specific practices. The floor plan was found to be highly variable. Lateral and rear appendages, front and rear porches, galleries, even classical columns appeared in great variety. But these qualities all I-houses unfailingly had in common: gables to the side, at least two rooms in length, one room deep, and two full stories in height[3] (1986: 8).

Hall-Parlor Plan. The hall-and-parlor house is a simple side-gabled house that is two rooms wide and one room deep. Similar to the I-house, it is a traditional British folk form that became "the dominant pre-railroad folk housing over much of the southeastern United States" (McAlester 1984: 94). Lanier and Herman provide the following passage on the hall-parlor plan:

> The most common two-room arrangement throughout the region [Middle Atlantic] consists of two rooms aligned end to end on the ground floor, with a fireplace at one or each gable end. The main room, or hall, contained the principal fireplace and the stair or ladder to the story above. Popularly known as hall-parlor houses, these one-story, one-and-a-half-story, and two-story dwellings were built from the early colonial period through the early 1900s. As with hall plan, hall-parlor dwellings were, after 1830 or so, increasingly associated with less affluent households.

3. Despite Harris indicating that one-and-a-half story house could be considered an I-house, URS is adopting Kniffen's qualifier—that an I-house be two full stories in height.

> The best hall-parlor houses contained a fireplace in each of the two main rooms. The room with the entry from the outside usually held the larger fireplace; the other room typically possessed a much smaller fireplace, either in the center of the gable or, in upper Delaware and adjacent Pennsylvania, in the gable corner at the back of the house. Hall-parlor houses were also built with unheated parlors, especially on the lower Eastern Shore of Delaware, Maryland, and Virginia. These unheated parlors were actually first-floor sleeping rooms and generally did not serve as formal sitting and entertaining spaces. Architectural trim in the forms of moldings, cornices, and mantel pieces also served to distinguish the quality and finish of these two rooms; the better room often contained more elaborate paneling; as well as the best furniture. The second room, or parlor, has been known by a number of other names, such as "inner room," "downstairs chamber," and "sitting room." The presence of a second room in the hall-parlor house led to the use of different terms, such as "dining room," to label the old hall (1997: 16)

For the purposes to the State Route 26 Alternatives project area, hall-parlor plan refers to vernacular dwellings from the nineteenth century that are side-gabled, one-and-half stories, and one pile deep. This property type does not present a tall and wide front façade like an I-house, but rather has a more compact front façade and general massing.

Massed-Plan, Side-Gable. The massed-plan, side-gabled house lacks the specific typology of either the I-house or the hall-parlor plan, but is essentially a side-gabled, one-and-a-half or two story high dwelling that is more than one room deep. According to McAlester, massed-plan houses "had relatively large and flexible interior plans" (1984: 98) and, as noted above, served to replace the traditional one-room deep forms. For the purposes of this investigation, "massed-plan side-gable" is being adopted to refer to one-and-a-half to two story, side-gabled vernacular dwelling that does not fall into the I-house or hall-parlor typologies.

Evaluation Criteria. Potentially eligible examples of nineteenth-century folk housing need to retain their historic massing and scale, as well as their original materials, such as wood siding and windows, in order to connote their significance. There is very little allowance for alterations or additions for such property types because, as vernacular resources, folk houses are essentially limited to form and materials. Whereas a Queen Anne property type may have design features, such as turrets, or decorative elements, such as spindlework that convey its significance, the distinctive characteristics of folk houses are limited.

Regarding form, the hallmarks of an I-house are that it is one room deep and two full stories in height. Generally, this property type is easily evident by its exterior form. Similarly, the hallmarks of a hall-parlor plan are that it is one-and-a-half stories in height, two bays wide, and one pile deep. Interiors are clearly among the hallmarks of a hall-parlor plan property type, but such factors were unavailable for this survey. Nevertheless, its exterior form can serve as an indicator of this property type. A massed-plan side-gable resource should retain its side-gable form and massing. Additions to nineteenth-century folk housing are to be expected, but those that are unsympathetic and alter the original form and/or disrupt the original door and window fenestration would serve to detract from the resource's integrity.

Regarding materials, primary among them are wood siding and windows and brick chimneys. The sheathing or replacement of wood siding with vinyl or aluminum exterior siding, or the replacement of wood windows with vinyl windows, severely detracts from a resource's integrity. In removing or covering up this key defining characteristic, one of the primary materials that define this resource is removed from analysis. Using the above example, the replacement of windows on a Queen Anne resource may not do major harm to its integrity if other key defining characteristics remain.

Thus, design and materials are two principal elements of integrity that need to be present for an example of folk housing to be considered significant. Potentially eligible examples of nineteenth-century folk housing would be found significant under Criterion A as representative of broad patterns in the settlement and development of Sussex County; or under Criterion C, if such resources embody the distinctive characteristics of a type, period, or method of construction associated with folk housing.

Early to Mid-Twentieth-Century Domestic Architecture

Bungalow. The Bungalow property type is a multi-varied one that has entered the lexicon as a popular term (i.e., use of small "b" to denote any small house) and also serves to define a particular style from the early twentieth century. Gowans provided four criteria that define a Bungalow (note capital "b"), three of which must be present: a) no basement; b) a low-sloping roof that sweeps over a verandah; c) one or one-and-a-half story in size; and d) an interpenetration of inner and outer space (1986: 77). Schweitzer and Davis define a "true original Bungalow" as "one- to one-and-a-half stories high with a low front dormer" (1990: 152).

Newfound wealth generated by certain crops—poultry, eggs, corn, and strawberries—in the early twentieth century allowed certain Sussex County farmers to build homes in newly emergent styles. To accomplish this, rural residents often turned to readymade house catalogues. There were a "Big Six" of suppliers of pre-cut, conventional balloon-frame houses that were advertised and sold in the first half of the twentieth century: Gordon-Van Tine, Aladdin, Sears, Ward, Lewis, and Sterling. According to Schweitzer and Davis:

> A confluence of factors at the close of the 19th century gave rebirth to the catalogue-housing industry and long-lasting volume to prefabricated-home companies. As noted earlier, the beginning of the 20th century marked the culmination of several decades of industrial development, invention, and technical sophistication. Railroads now served even remote villages... Architectural plan books and the rise of mass-circulation magazines exposed the people of America to tastes beyond the simplest and most functional.
>
> The catalyst that really launched the catalogue-house business was passage of the Rural Free Delivery Act in 1896. This established the catalogue way of doing business, particularly for customers isolated on farms or in small towns. Many of these people already had the land and the craft skills to erect houses, but they lacked the efficiency of lumberyard power tools for cutting and boring, and they also were at the mercy of local lumber dealers or local sawmill prices (1990: 62).

The bungalow was becoming particularly popular in the Wilmington suburbs, and farmers seeking to build new houses in Sussex County took notice. Chase writes:

> Although Sussex County is remote from Wilmington, lying some ninety miles south of the city, its residents nonetheless had access to styles and changes in Wilmington, including architectural developments like the inexpensive, easily built bungalow... The ready availability both of plans in newspapers and magazines and of prefabricated building materials enabled residents to bring the bungalow, a new dwelling form, to their rural setting[4] (1995: 181).

Three bungalows in Baltimore Hundred were investigated in 1990 and found to be representative examples of a "rural bungalow" subtype. The bungalows formed the basis of a Multiple Property National Register Nomination (Herman et al. 1990). The three bungalows possessed common bungalow exterior details, but presented a traditional interior layout that was more reflective of Sussex County's rural past than an early-twentieth-century dwelling. The "rural bungalow" was defined as:

> [A] one- or one-and-a-half story house, either of frame or brick construction. The frame version is often shingled, though clapboarding is also frequently used on the exterior. The structure has a low-pitched roof that terminates in deep, overhanging eaves and is supported by substantial, though simple, brackets. The building generally has a broad, deep porch ranged across the front and anchored at the corners by pillars. Fenestration and door placement varies, though there is frequent use of bay windows. The typical bungalow floor plan has five or six rooms: living room, dining room, kitchen, two or three bedrooms plus bath. The rural bungalows of Sussex County differ from their suburban counterparts in the fact that they do not possess as many of the interior features such as fireplaces with rustic hearths and built-in furniture such as cupboards, buffets, bookcases, and window seats (Herman et al. 1990: 22).

In addition, the authors noted siting and landscaping as a second distinction of rural bungalows:

> The physical siting of the bungalows in Sussex County... follows a suburban pattern. Many of the bungalows located in rural settings have been made to appear as if they are part of a suburb. They sit in small lots along the road, often with sidewalks leading to the front doors and hedges marking out the yards... Each bungalow has only a garage or garage-shed in the adjacent yard. This is a clear contrast to neighboring farm houses, which are built back from the road and are generally set in a farmstead made up of a variety of agricultural outbuildings. Yet, at the time these bungalows were constructed, they were intended to function as the main dwellings of extensive agricultural properties (Herman et al. 1990: 17).

Evaluation Criteria. Herman et al. provided the following registration requirements for a resource to qualify as a "rural bungalow" in Sussex County:

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4. Although Sussex County residents were becoming more aware of the bungalow form, and some were erecting dwellings in the new style, Chase later notes "relatively few farm families adopted the new form [bungalow] that the twentieth century offered" (181).

a) an eligible property must illustrate the period 1880–1940 +/-
b) an eligible building must clearly illustrate the following attributes:
- form (the massing of the house in terms of elevation, roof style, and porches);
- construction (building materials and cladding);
- interior finishes (rooms should follow the pattern of decoration discussed in the Statement of Historic Contexts); and
- siting (the historic property should occupy a place in the local topography consistent with siting patterns).

c) Bungalows are frequently subject to significant alteration. Any building which has undergone substantial changes is not eligible.

Interior finishes and siting are key aspects to determine if a bungalow is of the "rural bungalow" subtype identified by Herman et al. If one is unable to access the interior, siting can still serve as an indicator of the rural subtype, but would not be entirely conclusive to determine if the resource was an example of a "rural bungalow." Nevertheless, the bungalow resource can be analyzed purely as an example of a standard bungalow, in which the rest of Herman's criteria are applicable.

Potentially eligible bungalows would reflect Gowans' criteria of having a low-sloping roof, coupled with a verandah (open porch) that provides for, what Gowans terms, "the interpenetration of inner and outer space." Such a resource is expected to be one to one-and-a-half stories in height with intersecting roof planes due to dormer windows and/or a verandah. One would also expect to find exterior elements—such as brackets, exposed rafters, and porch posts—on display with a potentially eligible bungalow. Replacement siding over original siding may be acceptable if the building's original form and massing, as well as exterior elements, are evident. Additionally, enclosure of a verandah may be acceptable, if sympathetic; however, the infilling of a verandah adversely alters a bungalow's original form. Replacement windows that approximate the original sash are an acceptable alteration.

Thus, a bungalow would need to retain its bungalow form as well as its exterior elements and building materials to connote its significance.[5] Design, materials, and workmanship are three principal elements of integrity that must be present for a bungalow to be considered significant. Potentially eligible bungalows would most likely be found significant under Criterion C, if a given resource embodies the distinctive characteristics of the bungalow form, be it rural or standard.

Minimal Traditional. McAlester defines a chronological order of World War II and post-World War II-era housing that commences with Minimal Traditional in the 1930s and evolves to the Ranch and Split-Level styles of the 1950s. The Minimal Traditional is "a simplified form loosely based on the previously dominant Tudor style of the 1920s and 1930s. Like Tudor

5. Mulchahey et al. noted more than a decade ago that the bungalows of Baltimore Hundred had experienced a fair amount of change and predicted at that time that most would not eligible for the NRHP: "Although numerous examples of twentieth-century domestic architecture survive in Baltimore Hundred, the number that remain in their original state is low. The application of asbestos or aluminum siding, the addition of incongruous building extensions, and the enclosing of previously open porches have made the majority of bungalows… ineligible due to a lack of architectural integrity" (1990: 142).

houses, these generally have a dominant front gable and massive chimneys, but the steep Tudor roof pitch is lowered and the façade is simplified by omitting most of the traditional detailing" (McAlester 1984: 477). Most Minimal Traditional examples were "relatively small one-story houses," though "occasional two-story examples are also seen" (McAlester 1984: 478). MTA identified this property type in the State Route 26 project area and expanded the definition of Minimal Traditional to note "window styles varied; large single-pane or multi-pane picture windows are common, as are corner windows, and single and paired double-sash windows." McAlester also notes that Minimal Traditional houses "commonly dominate the large tract-housing developments of the period" (1984: 478).

Ranch. The Ranch house type started to become popular in the 1940s and, during the postwar era, became a dominant housing type. This housing type is a single-story, side-gable, horizontal design that presents a wide, horizontal façade to the street. Its massing is usually asymmetrical with low roof pitches and an eave overhang. Walls can be of frame or brick cladding, and often are a combination of both. Builders occasionally added modest decorative elements, such as decorative iron or wooden porch supports, and decorative shutters. Window types would include ribbon windows and picture windows. Courtyards or patios are a common feature, as well as built-in garages (McAlester 1984: 479). McAlester notes "never before had it been possible to be so lavish with the land, and the... Ranch house emphasizes this by maximizing façade width" (1984: 479). Ranch houses are probably more likely to be found in rural regions than in a suburban subdivision, due to the expansive nature of the type and the availability of land.

Evaluation Criteria. It is unlikely that an individual example of a Minimal Traditional or Ranch style house would be found to be historically significant for its design/construction value (Criteria C), unless it was a prototypical model of these styles and maintained exceptional integrity. It is more likely that an example of the Minimal Traditional or Ranch styles would be found historically significant for its associative value (specifically, Criterion A) as part of a district. If a dwelling is associated with a particular individual or has the potential to yield important information, then the resource may be eligible under Criteria B and D, respectively.

Twentieth-Century Vernacular. For the purposes of the State Route 26 Alternative Routes survey, McAlester's discussion regarding World War II and postwar-era housing has been adopted and terms such as Minimal Traditional are being utilized. Nevertheless, Schweitzer and Davis have noted through their examination of mail-order catalogues that the term "vernacular" is entirely appropriate for simple early- to mid-twentieth-century dwellings that lack stylistic details:

> Throughout the first four decades of the 20th century more homes were constructed than in the entire history of the nation up to that time. Many were of a reconcilable architectural style. Families leafing through the catalogues... would have seen houses fitting common style definitions. But they also would have seen homes on which no stylistic tag could be placed. From the earliest catalogues examined... to those of the early 1940s, many Vernacular house types persist, houses similar to those built 100 or even 200 years earlier (1990: 229).

Although one cannot say with certainty that catalogue homes were erected in the project area, it might be possible to discuss simple twentieth-century dwellings of rural Sussex County through the prism of mail-order catalogues. After all, mail-order homes were inexpensive, simple, and traditional. Schweitzer and Davis note that "catalogue homes typically were not city houses; testimonials... indicate they went to farms, small towns, perhaps a newly developing semi-rural suburb, occasionally to small-scale speculative builders" (1990: 242). The authors find McAlester's six families of folk-house types an appropriate starting point for a discussion of twentieth-century vernacular forms: gable-front, gable front-and-wing, I-house, hall-and-parlor, massed-plan side-gabled, and pyramidal. Additionally, they borrow from authors Gottfried and Jennings to expand the list (and somewhat overlap McAlester) to include open-gable cottage, shotgun house, gabled-ell cottage, and center-gable cottage.

More research is needed into this subject and evaluation criteria have not been provided. Nevertheless, it appears plausible that certain twentieth-century property types might be aptly defined by type as opposed to a loose stylistic definition, such as bungalow or Cape Cod.