3.0 CULTURAL RESOURCES PREDICTED FOR THE ARCHAEOLOGICAL APE

The following is a discussion of the potential for the archaeological APE to contain pre-contact and/or historic period archaeological resources. The discussions are based on the results of the geomorphological investigations and the background research.

3.1 Pre-contact Period Archaeology

According to the modeling accomplished by Custer (1986:178) for pre-contact period archaeological resources in Delaware, the Bridge 362 archaeological APE is contained within a Southern Sub-Unit, Interior Management Unit. More specifically, Custer (1986:198) indicates that the archaeological APE is ranked as having low significance probability, with medium/low data quality and medium/low numbers of known sites. Custer (n.d.) assigns pre-contact period site predictive levels of moderate and high to various portions of the Bridge 362 archaeological APE. Despite the fact that Custer (1986:204-205) does not assign the Bridge 362 archaeological APE to a specific area of development (e.g., Seaford), the location of the archaeological APE along a historic road just outside the town of Laurel and adjacent to Chipman's Pond and a campground that are recreational facilities, indicates that developmental pressures are high for the Bridge 362 archaeological APE. Review of the Delaware archaeological site files for the current project did not identify any previously recorded pre-contact period archaeological sites within or near the Bridge 362 at Chipman's Pond project.

Based on the absence of previously recorded pre-contact period archaeological sites within or near the archaeological APE; the information contained in the statewide contexts, including a categorization of the area as having low/moderate site potential in concert with a need for research; the limited size of the proposed construction impacts; the extensive scope and amount of historic commercial, dam, and roadway development adjacent to the archaeological APE; the presence of extensive poorly drained soils/wetlands; and the lack of undisturbed soils of appropriate age to contain pre-contact period archaeological remains, the Bridge 362 at Chipman's Pond archaeological APE is considered to have low potential to contain pre-contact period archaeological remains. Based on the archaeological APE's topographic setting as a level area with wetlands and inundation, if pre-contact period archaeological remains are identified, they will most likely represent ephemeral transitory use of this area as part of a more general settlement pattern, which included use of resources associated with wetlands, and larger, more permanent base camps along the larger streams such as the Nanticoke River and its tributaries. For additional pre-contact period context of the

project area, the reader is referred to *A Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986), *Delaware Prehistoric Archaeology: An Ecological Approach* (Custer 1984), and *Chesapeake Prehistory* (Dent 1995).

3.2 Historic Period Archaeology

The following is a summary of previously identified historic period above-ground structures located in the general vicinity of the Bridge 362 at Chipman's Pond project area and a discussion of the potential for the archaeological APE to contain historic period archaeological sites. No previously identified historic period archaeological sites are located within or near the currently designated archaeological APE. For an extensive description of Delaware's Euro-American history, especially agriculture, the reader is referred to the *Management Plan for Delaware's Historical Archaeological Resources* (De Cunzo and Catts 1990) and *"Neither a Desert Nor a Paradise:" Historic Context for the Archaeology of Agriculture and Rural Life, Sussex County, Delaware 1770-1940* (De Cunzo and Garcia 1993). Several NRHP-eligible or -listed historic period standing structures are recorded in or near the Bridge 362 archaeological APE and are summarized in Table 1.

Table 1.
Previously Recorded Historic Period Cultural Resources Located In or Near the Bridge 362 at Chipman's Pond Archaeological APE

CRS Number	Distance and Direction from Bridge 362 at Chipman's Pond Archaeological APE	Description
S-188	At east-central portion of archaeological APE	Old Christ Church; built 1770-1772; originally a chapel of East of Stepney Parish in Maryland; built by Robert Houston; one story with gallery at north end; brick foundation with hearts of pine interior and exterior walls
S-400	At western terminus of archaeological APE	Chipman's Mill; wood frame superstructure was burned in 1987; all that remains is concrete foundation remnants, concrete turbine penstock and overflow, millrace, and millpond
S-5871	1,219.2 m (4,000.0 ft) east-southeast	*Ca.* 1880s frame dwelling
S-5873	At eastern terminus of archaeological APE	Chipman Potato House; large two-story balloon frame structure measuring *ca.* 24x36 ft in area; built 1913 by Joseph and Ernest Chipman with help of Alva Hudson
S-5876	152.4 m (500.0 ft) west	Multiple agricultural buildings (frame granary, frame corn crib, sawn log corn house, frame storage shed, sawn timber frame meat house)
S-5878	228.6 m (750.0 ft) west	*Ca.* 1940s brick Cape Cod dwelling
S-5880	152.4 m (500.0 ft) west	Post-1868 dwelling

Historic period mapping of the project area indicates that the area has remained mainly rural throughout the historic period. Settlement in what is now Broad Creek Hundred advanced slowly prior to 1730 (Scharf 1888:1285). The remoteness of the location; empiric battles over control of the Delmarva Peninsula among Sweden, the Netherlands, and Great Britain; and competing claims to the land by the colonies of Maryland and Pennsylvania, once English control was secured, were factors limiting homesteading in the area. No architectural resources from this earliest Euro-American era remain in the archaeological APE.

Settlement in Sussex County increased during the Intensified and Durable Occupation (1730-1770+/-) period. The first structures located in the archaeological APE date to this period. To exploit the area's abundant timber resources and provide lumber to the new settlers, water-powered sawmills were built. Prior to 1770, Robert Houston, who owned the land within the archaeological APE, established a pond and sawmill at the site of what is now Chipman's Pond and Mill. Houston's sawmill was reported to have been located on the east bank of the stream, near what area residents refer to as the "rust pond." The rust pond is still visible in the archaeological APE today. Houston's sawmill provided the lumber for the oldest standing structure adjacent to the archaeological APE, Old Christ Church (Photograph 6). Old Christ Church was built in 1771, when this portion of Delaware was being claimed by Maryland, and remains one of only a few churches along the Atlantic Coast to survive unaltered from America's pre-Revolutionary period. The extant structure of Old Christ Church is not within the archaeological APE; however, the church's property does adjoin the archaeological APE.

In 1775, colonial courts sided with Pennsylvania in its boundary dispute with Maryland, placing Robert Houston's pond and sawmill within Broad Creek Hundred, Sussex County. During the Early Industrialization (1770-1830+/-) period, a switch from tobacco growing to corn and grains stimulated a need for gristmills. Millponds that formerly supported a sawmill now might also run a gristmill. In Broad Creek Hundred and neighboring Little Creek Hundred, more than 30 ravines had been dammed by 1800, to furnish power for more than 50 mills (Moore 1959). In 1816, Houston sold his land, pond, sawmill, and possibly a gristmill, to John Chipman. The Chipman family would own the land and the pond until *ca.* 1950, and become the largest landowner in the project area (Graves 1974).

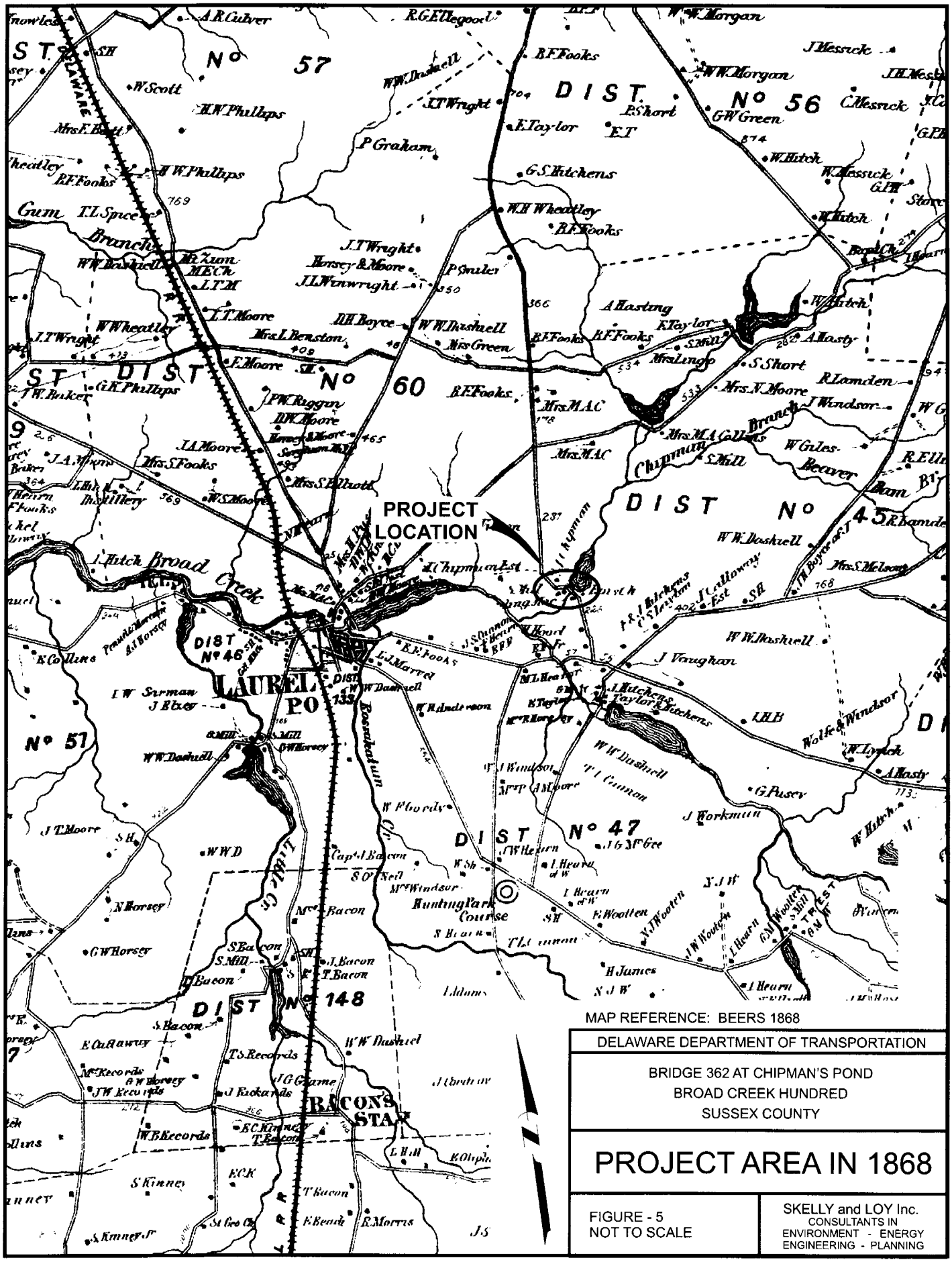
While other portions of Delaware were becoming more industrial during the Industrialization and Early Urbanization (1830-1880+/-) period, the area of the archaeological APE remained rural. Corn remained the most popular crop by a large measure, but farmers had also begun cultivating fruit, such as peaches, strawberries, and blackberries. This was particularly true following the completion of the Delaware Railroad in 1865. The railroad (later a subsidiary of the Pennsylvania Railroad) passed through Laurel, and provided a high-speed

Photograph 6. View of south and west facades, Old Christ Church, facing north.

transportation connection to urban markets such as Wilmington, Philadelphia, New York, and Washington, D.C. Farmers in Broad Creek and surrounding hundreds turned increasingly to truck farming as a livelihood (Beers 1868; Hancock 1976:87-90; Herman *et al.* 1989:54), with mills continuing to play an important role in the economy of the areas surrounding Laurel. In the archaeological APE, Chipman's Mill remained a center of the community. Old Christ Church, which had formerly also been a node of activity, stopped holding regular services in 1860 (Wilkie 1971). By the mid-nineteenth century, the Chipman family owned all the land in the project APE (Beers 1868). The Chipman sawmill operations can be found in the 1850 Census of Manufacturers; however, there is no indication that he was operating a gristmill at this time (U.S. Census 1850). In 1860, John Chipman is listed as owning both a sawmill and the wool carding mill/machine (Beers 1868; U.S. Census 1860). The Beers (1868) map of Broad Creek Hundred shows Chipman's sawmill and carding mill/machine located south of the dam and west of the stream (Figure 5). John Chipman was again reported to own a sawmill and a carding machine in the 1870 census (U.S. Census 1870); however, Chipman is not listed as a mill owner in the 1880 manufacturing census for Broad Creek Hundred (U.S. Census 1880), nor in the Laurel City Directory (Hancock 1983:355, 357, 359, 361). The implication is that John Chipman either died or he no longer found the sawmill or wool carding industries profitable.

During the Urbanization and Early Suburbanization (1880-1940+/-) period, the Chipman family is again noted as millers. In April 1881, the *Delaware State Journal* reported that "William C. Chipman and Bro. will soon build a grist mill" (Hancock 1983:287). The Chipman gristmill was completed in 1884. Interestingly, Scharf's (1888:1292) contemporaneous *History of Delaware* referred to the operations as Chipman's *Mills* and implied that the sawmill and carding mill were still present and operating, contrary to the census and city directory records. Chipman's gristmill was water-powered and apparently used a turbine to drive the millstones (Graves 1974). The use of a turbine rather than a waterwheel in 1884 was not surprising. Many Delaware mills switched to the more efficient water turbines in the mid-nineteenth century as a means of increasing yield. Chipman's gristmill was a custom mill that ground grains, chiefly corn, for local farmers.

Prior to *ca.* 1925, general farming still dominated in the county, with corn and wheat continuing to be the principal crops. Increasingly, however, farmers were turning to truck farming, producing principally potatoes, sweet potatoes, tomatoes, and strawberries (Hancock 1976). Sussex County became particularly known for its sweet potato production. A sweet potato house, built by the Chipman family as part of its farm operations in the 1913, is located adjacent to the eastern terminus of the archaeological APE (Quinn 1987; Photograph 7). The



DELAWARE DEPARTMENT OF TRANSPORTATION

BRIDGE 362 AT CHIPMAN'S POND
BROAD CREEK HUNDRED
SUSSEX COUNTY

PROJECT AREA IN 1868

FIGURE - 5
NOT TO SCALE

SKELLY and LOY Inc.
CONSULTANTS IN
ENVIRONMENT - ENERGY
ENGINEERING - PLANNING

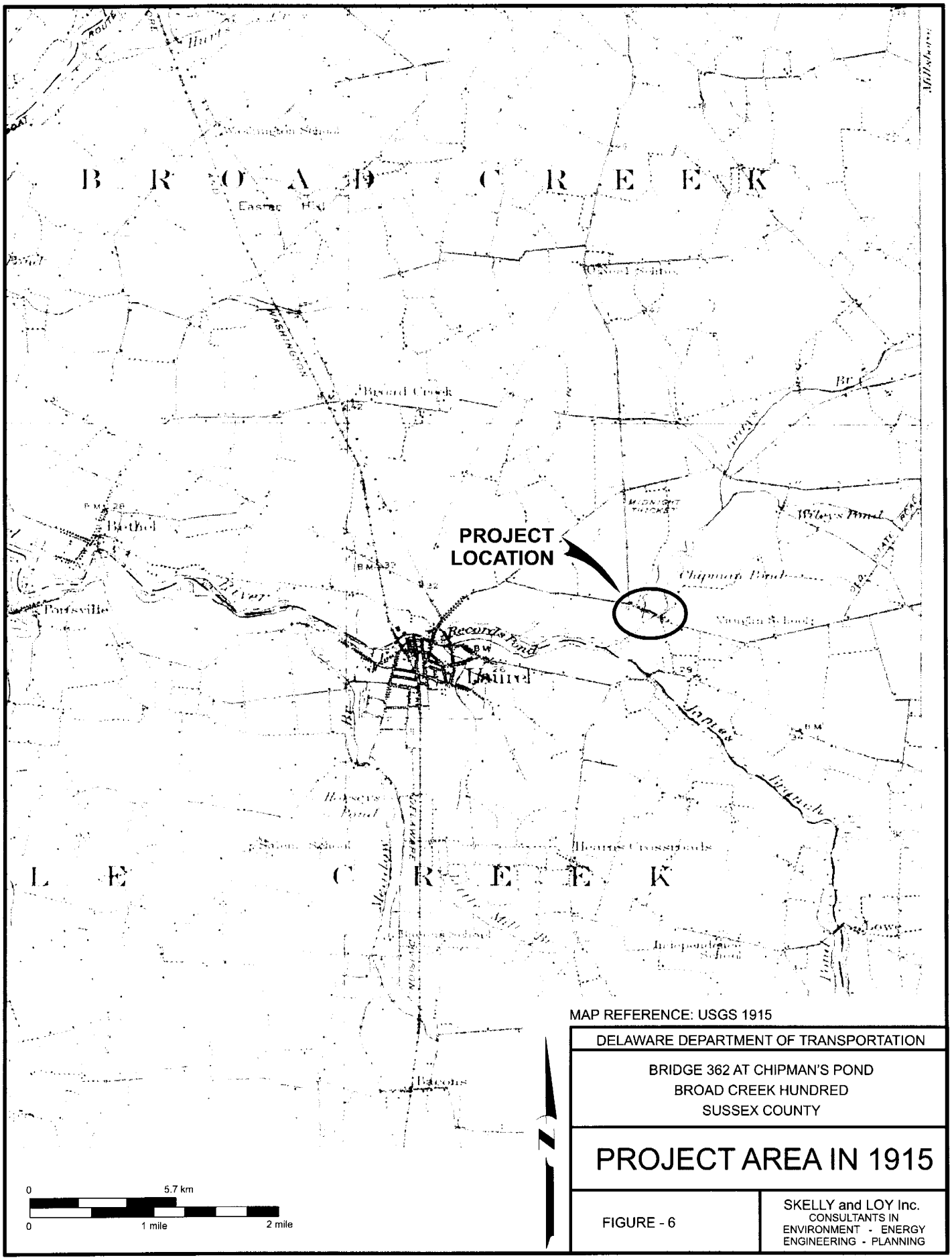
Photograph 7. View of west and north facades, Chipman Potato House, facing south.

Chipman Potato House was listed in the NRHP in 1990. This potato house is first shown on a 1915 USGS map of the area (USGS 1915; Figure 6).

Sussex County's agricultural economy underwent a revolutionary change during the 1920s with the development of the broiler industry. The increased emphasis on truck farming and broiler raising benefited the Chipman family. For the last 25 years of its existence, Chipman's gristmill almost exclusively ground corn for chicken feed. During that period, the mill had to be saved from a natural disaster. According to local informants, in August 1933, the dam at the mill was intentionally breached in order to save the mill during the Laurel flood. It is assumed that the reinforced concrete bridge and reinforced concrete race and spillway currently present in the archaeological APE, dates from after the 1933 flood. Corroborating evidence, however, has yet to be found. An image of the project area *ca.* 1940, shows the mill building and dam (USGS 1944; Figure 7).

Chipman's Mill ceased operations in either 1948 (Moore 1959) or 1951 (Graves 1974) during the period in Delaware known as Suburbanization and Exurbanization (1940-present). The mill, millpond, millseat, and 205 ac of land surrounding them were sold by Elwood Chipman to Carlton Lowe in 1951 (Sussex County Deeds 1951). Lowe had managed the gristmill between 1938 and 1950. Two years previously, in 1949, Chipman and Lowe had developed a small tract of Chipman's holdings just west of the mill and across the road into four residential lots (Sussex County Plat Books 1949). Subsequent to buying the mill property, Lowe developed a portion of his lands surrounding the millpond into a campground, receiving his first permit to do so in 1952 (Jamie Givens, personal communications 2005). The project area, including the mill, millpond, beginning of the campground facilities, and new residences, is shown on a 1955 map (USGS 1955; Figure 8). Chipman's Mill remained in place for many years after its closing, a relic of an earlier time. In 1978, the mill building was listed in the NRHP for its significance in local industry (Norton and Nelson 1977). In 1987, the building was destroyed by arson. Remaining today are some foundations, the turbine penstock and an overflow, the millrace, and the millpond (Figure 9).

The transformation of the pond from an active part of a mill operation to a recreational facility was in keeping with historical and demographic trends. During the Suburbanization and Exurbanization era, farming in Sussex County was both decreasing as a percentage of the overall economy and becoming more specialized, with greatest emphasis placed on broiler production (Hancock 1976:100-103). The water-powered Chipman's Mill could no longer compete with centralized, steam-powered gristmills. At the same time, Americans had more disposable income, particularly in the years following World War II, and they were placing a greater emphasis on leisure and travel. Improved roads, including the Interstate Highway



MAP REFERENCE: USGS 1915

DELAWARE DEPARTMENT OF TRANSPORTATION

BRIDGE 362 AT CHIPMAN'S POND
BROAD CREEK HUNDRED
SUSSEX COUNTY

PROJECT AREA IN 1915

FIGURE - 6

SKELLY and LOY Inc.
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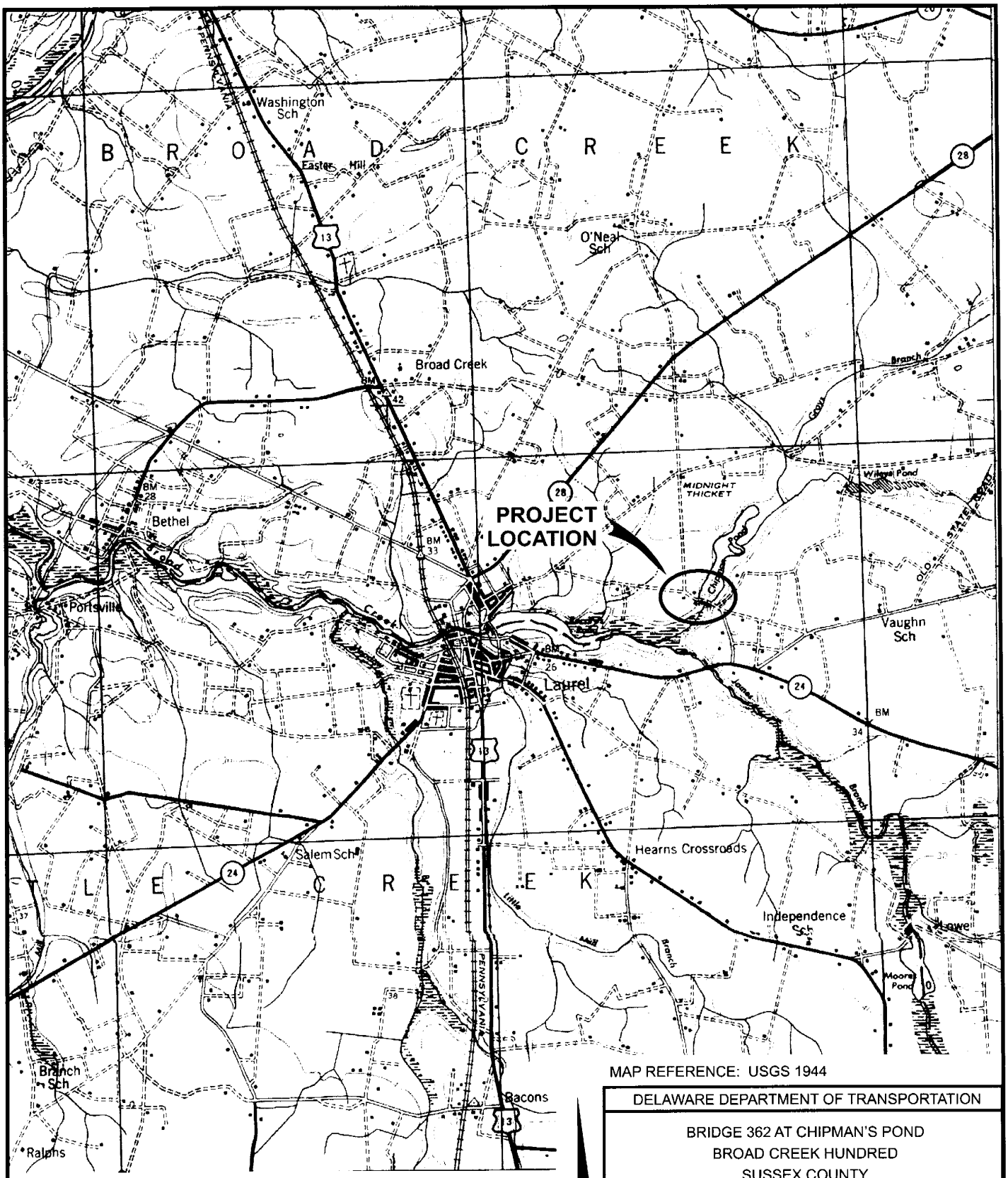

MAP REFERENCE: USGS 1944

0 5.7 km

0 1 mile 2 mile

N

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BRIDGE 362 AT CHIPMAN'S POND
BROAD CREEK HUNDRED
SUSSEX COUNTY

PROJECT AREA IN 1944

FIGURE - 7

SKELLY and LOY Inc.
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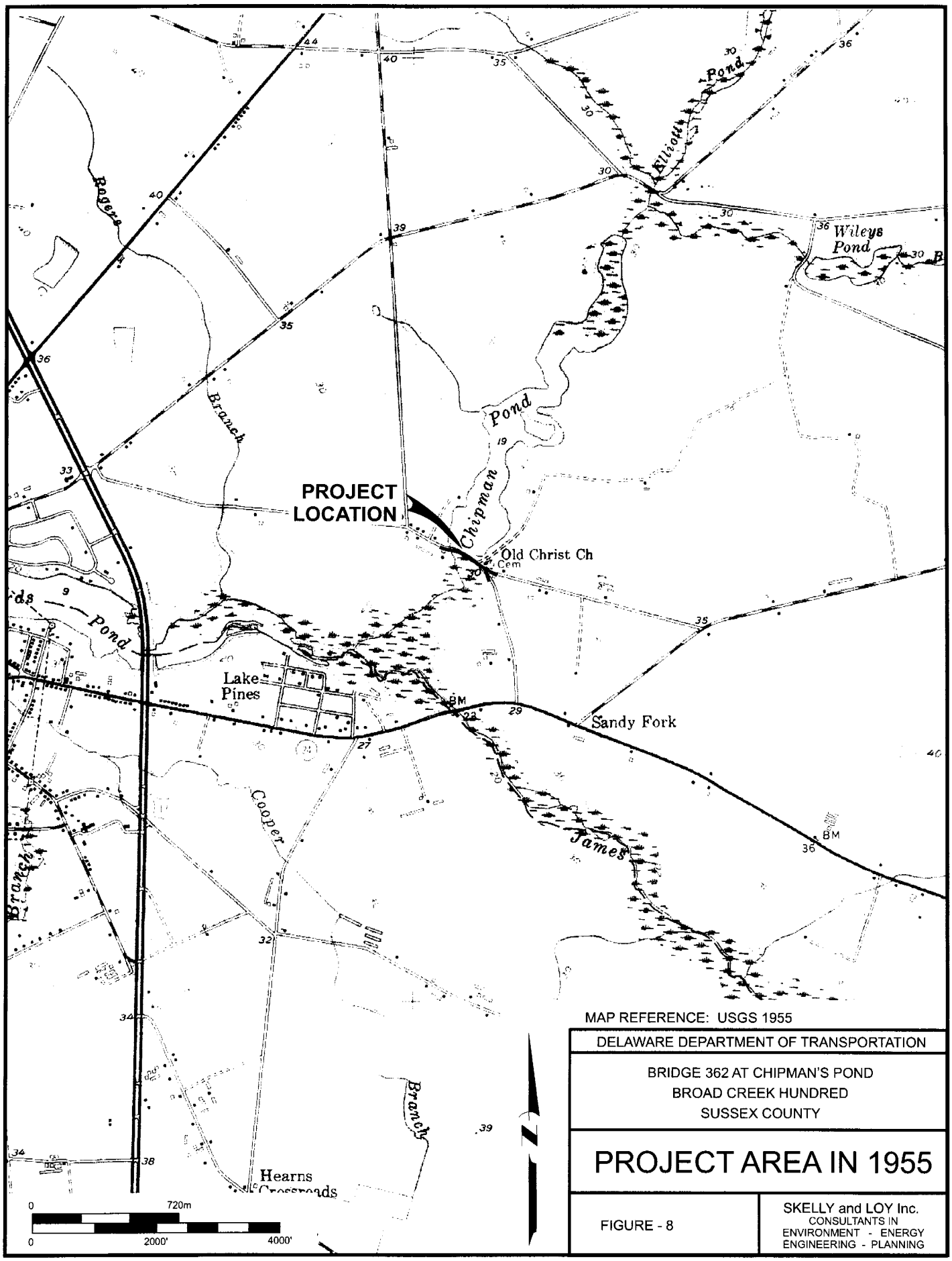

MAP REFERENCE: USGS 1955

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BRIDGE 362 AT CHIPMAN'S POND
BROAD CREEK HUNDRED
SUSSEX COUNTY

PROJECT AREA IN 1955

FIGURE - 8

SKELLY and LOY Inc.
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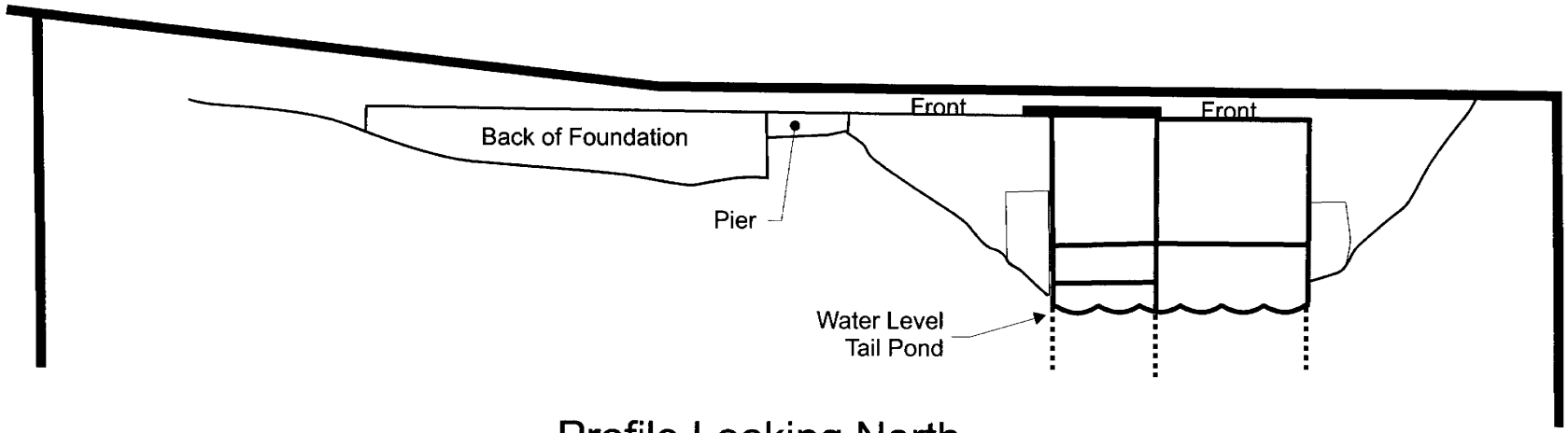
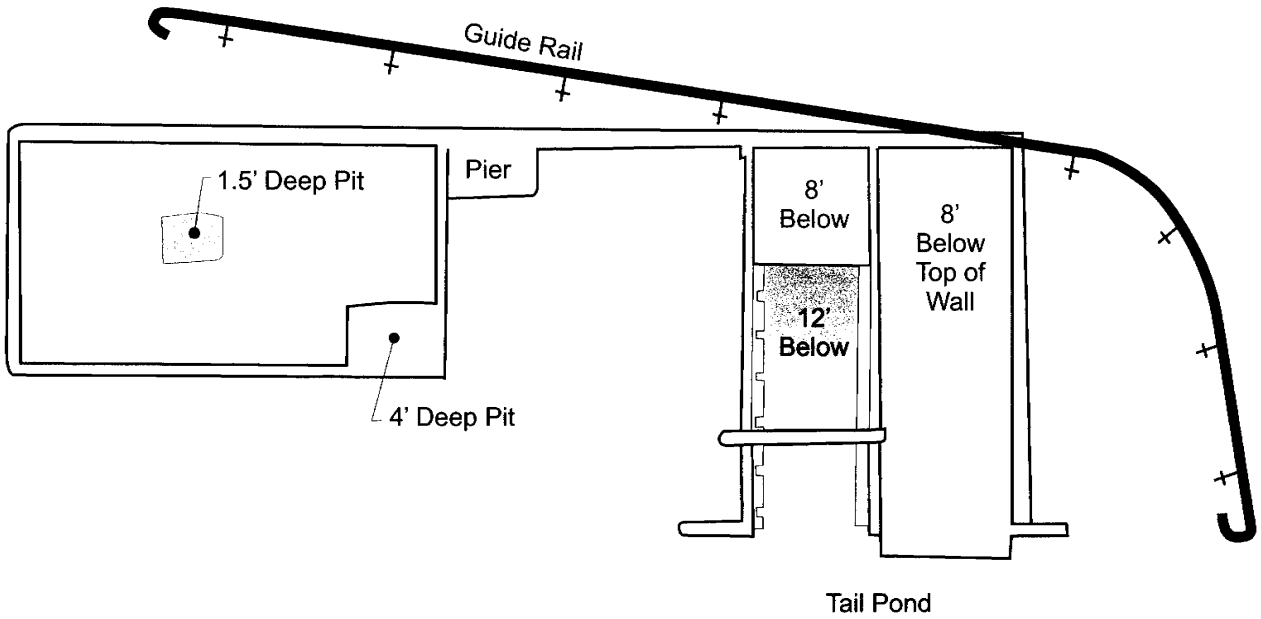
ENGINEERING - PLANNING



Profile Looking North



Plan View

0 15'
APPROXIMATE SCALE

DELAWARE DEPARTMENT OF TRANSPORTATION

BRIDGE 362 AT CHIPMAN'S POND
BROAD CREEK HUNDRED
SUSSEX COUNTY

SKETCH MAP OF CHIPMAN'S MILL REMAINS

FIGURE - 9

SKELLY and LOY Inc.
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ENVIRONMENT - ENERGY
ENGINEERING - PLANNING

System, made automobile travel easier. Lowe's campground, which would eventually include bungalow colonies, trailer and motorized camper sites, and tent camp sites, serviced this travel and leisure market, as did many other Sussex County millponds. Lowe's Lake View Recreation Area would grow to become one of Delaware's largest inland camping areas (Lynch 1981). To supplement the campground's income, Lowe also grew fruits and vegetables on his land to sell to campers, other travelers, and local residents from his store, which was erected in the 1960s (Jamie Givens, personal communications 2005). The campground and store are located adjacent to the archaeological APE at the western terminus of the project area.

The Chipman's Pond Road APE contains resources ranging in age from the eighteenth through the late twentieth centuries. With the exception of Old Christ Church, which is associated with Robert Houston, the first owner of the millpond, all resources are linked to the Chipman and/or Lowe families.

De Cunzo and Catts (1990) and De Cunzo and Garcia (1993) present in-depth discussions of the history of Sussex County, as well as the statewide historic contexts within which identified historic period resources may be evaluated. Based on their information, the Bridge 362 archaeological APE has the potential to contain historic period resources associated with all of the major periods of historic development, from the Exploration and Frontier Settlement 1630-1730 to the Urbanization and Suburbanization 1880-1940 periods. Based on the information gleaned from the historic documentary record, the presence of previously identified historic period properties in the archaeological APE, and predictive information contained in De Cunzo and Catts (1990) and De Cunzo and Garcia (1993), it appears that the Bridge 362 archaeological APE has a high potential to contain as-yet unidentified historic period archaeological resources.

Skelly and Loy personnel are currently conducting a historic architectural survey of the Bridge 362 at Chipman's Pond project area. The only newly identified historic period standing structures located within the project area are Bridge 362, the Carlton Lowe House, and Lowe's Lakeview Campground. With the exception of the bridge, none of these structures are located within the archaeological APE; however, the campground and Carlton Lowe House properties adjoin the archaeological APE at the western terminus of the project. No associated archaeological resources would be expected for any of the newly identified historic period structures, due to their function, location, and age. Due to the long-term rural nature of the archaeological APE, and the presence of an early church and mill(s), and later campground facilities, if historic period archaeological resources are identified, they will most likely be associated with agricultural activities, milling, the church, recreational facilities, and/or transportation-related resources.