

IV. ARCHITECTURAL RESOURCES: DESCRIPTION AND EVALUATION

A. Introduction

Four architectural resources were identified within the project's area of potential effect along Route 326 in the vicinity of Bridges 526 and 527. One of these, the Warren Mill (S-438), was a previously recorded resource listed in the National Register in 1978. According to the records of the Delaware State Historic Preservation Office, none of the resources associated with the Warren Mill had been previously documented. These resources may be considered as elements of a potential National Register Historic District associated with the Warren Mill (Figure 5). Two additional resources were documented during this survey within the project area at the intersection of Routes 26 and 17 (Figure 6). One of these, the C.J. Raubacher House (S-2478), had been previously surveyed. Records at the Delaware State Historic Preservation Office revealed that another previously inventoried resource, the F.S. Bennett House (S-2481), was located within the project area. It was discovered, however, that this dwelling is no longer extant (see survey form in Appendix A).

B. Interpretation

Both of the study areas are contained in the Lower Peninsula/Cypress Swamp Zone, defined in the Delaware State Historic Preservation Plan as containing about a third of the state and including Broadkill, Indian River, Lewes and Rehoboth, Cedar Creek, Nanticoke River, Northwest Fork, Seaford, Georgetown, Mispillion River, Broad Creek, Gumborough, Little Creek, Dagsborough, and Baltimore hundreds. The natural environment of this zone is similar to the Upper Peninsula Zone in that early historical descriptions of the area identified it as having been heavily forested. The Nanticoke River is the main body of water flowing through the zone, which also contains countless smaller streams and ponds (Ames et al. 1989:35).

All of the resources documented in this study date to one contextual period, Urbanization and Early Suburbanization 1880-1940[±]. For the Lower Peninsula/Cypress Swamp Zone, this period is characterized by profound change resulting from the advent of the automobile. This period saw the construction of the Route 13 corridor during the 1920s and the improvement of secondary roads to accommodate automobile traffic. The travel times between major commercial centers and the rural enclaves diminished and the population of towns increased as a result of the formation of new residential and often racially segregated neighborhoods. Also, the area as a whole became less dependent upon agriculture, which had always dominated its economy (Ames et al. 1989:51). Based on the preceding summary of their historical development, it was concluded that the study areas have resources that potentially meet three context themes as defined by the Delaware Comprehensive Historic Preservation Plan: Manufacturing; Agriculture; and Architecture, Engineering, and Decorative Arts.

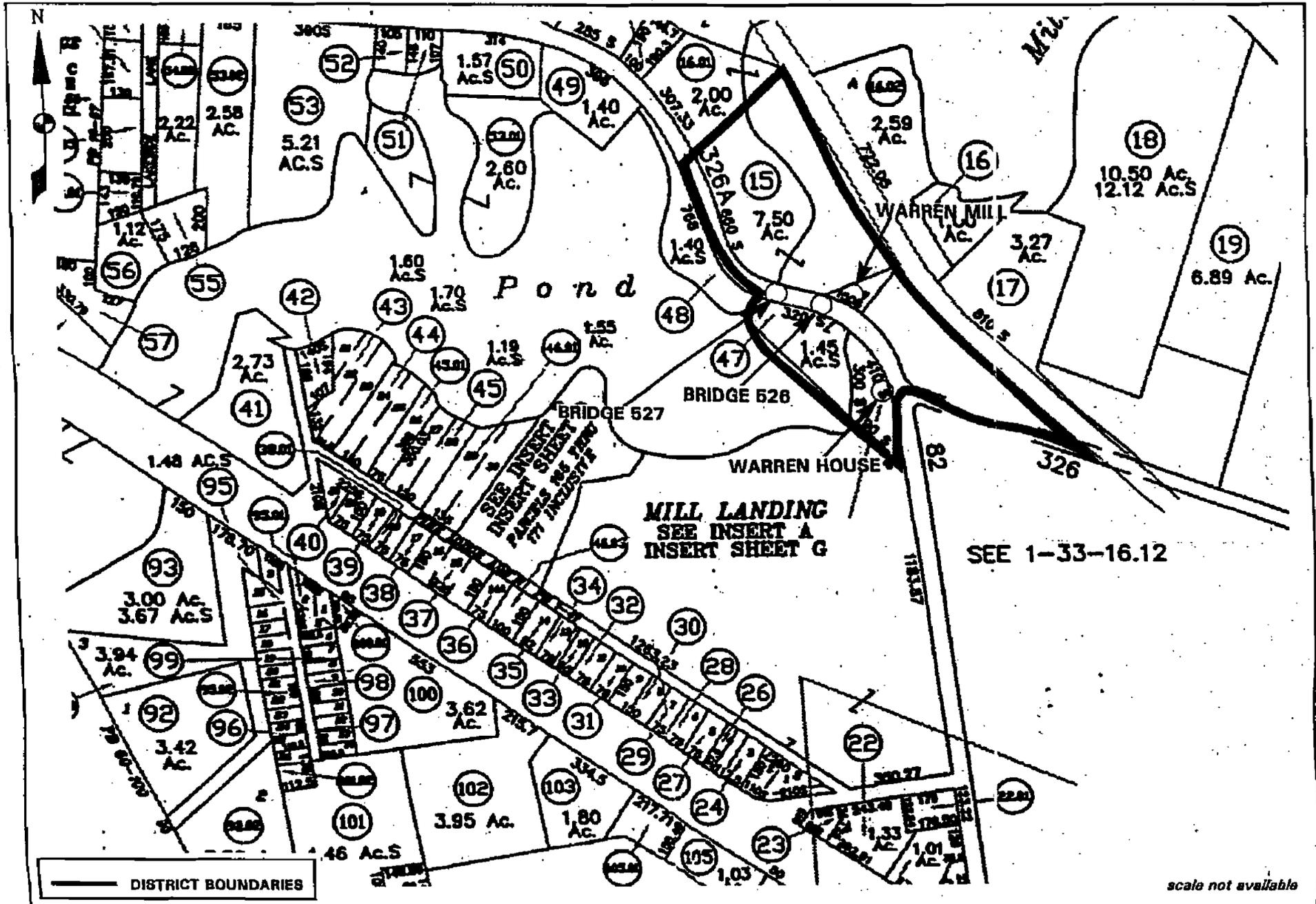


FIGURE 5: Warren Mill Historic District Boundaries and Contributing Resources

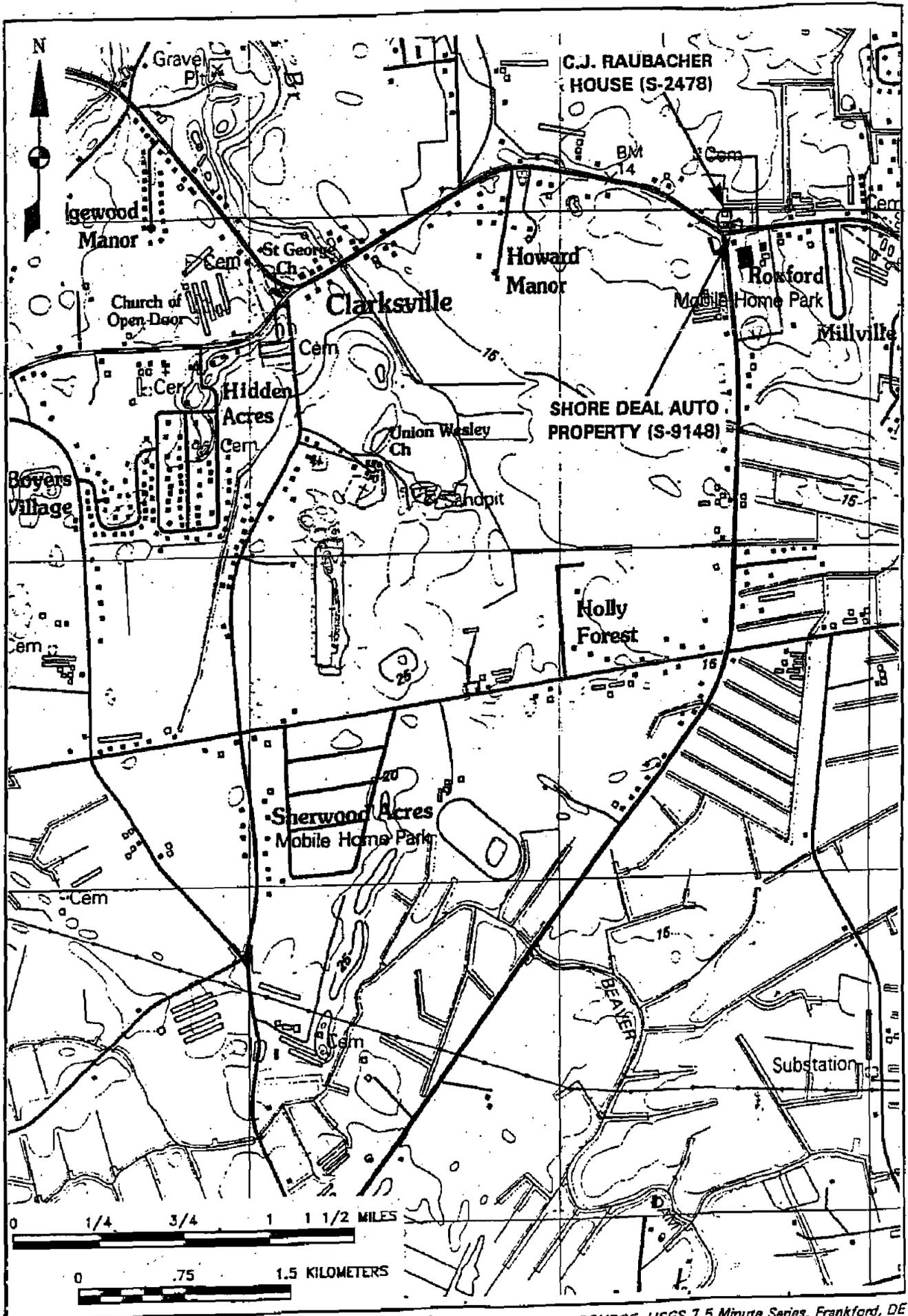


FIGURE 6: Resources Located at the Intersection of Routes 26 and 17

SOURCE: USGS 7.5 Minute Series, Frankford, DE Quadrangle, 1984 (Revised 1997)

1. Manufacturing

The study area at Bridges 526 and 527 contains resources associated with a gristmill property type related to the manufacturing theme. Gristmills, and mills in general, often are more than just the mill buildings themselves. They often include what is referred to as a "mill seat," which would consist of the mill building, power sources for the mill, and related outbuildings and roads. Included in many mill seats are raceways through which a waterpowered source might flow, and dams that control the water flow which might power a mill. A mill seat could include several dams that are part of a system of interconnected raceways and gates built to power milling operations (Heite 1992:5).

2. Agriculture

Agriculture has been a dominant aspect of the economy in Sussex County from its initial settlement to the present day. During the seventeenth and eighteenth centuries, subsistence agriculture utilized a mixed system with the cultivation of wheat, Indian corn, flax, and orchard and garden crops. A more market-oriented agriculture began to emerge in the late eighteenth and early nineteenth centuries. The development of the railroads during the mid-nineteenth century opened up distant markets to for the county's agricultural goods and encouraged the development of a commercial agricultural economy. As a result, many farmers expanded their orchards and vegetable fields. Non-farm entrepreneurs also invested capital toward acquiring large agricultural tracts which were farmed by tenant farmers and laborers. Among the agricultural-related buildings potentially associated with historic farm sites are barns, comcribs, chicken houses, granaries, smoke/meat houses, springhouses, carriage houses, stables, and milk houses (Bedell et. al. 1998:16).

3. Architecture, Engineering, and Decorative Arts

The Late Victorian era produced a variety of domestic architectural fashions derived from earlier historical precedents, with considerable emphasis on asymmetrical forms and elaborate surface treatments. At the "high" end, dwellings could manifest considerable attention to stylistic ornament, while at the broader "popular" end of the architectural spectrum, expression of style might consist only of a token reference. The architecture of rural and semi-rural settings continued to be characterized by folk-style dwellings again usually simple in form, such as an I-house, gable front, or gable-front and wing. Many very often had detailing inspired by Classical Revival, Italianate, or Queen Anne styles. The primary areas for the application of this detailing were the main entrance, porch, and cornice line (McAlester and McAlester 1992:309). Throughout the Lower Peninsula/Cypress Swamp Zone, simple farmhouses were detailed in this manner.

During the early twentieth century, increase in the use of the automobile and greatly improved roads made possible the clear geographic separation of home and workplace, resulting in the construction of residences in areas heretofore almost entirely agricultural. This process, which accelerated during the 1920s, was brought to a halt by economic depression and the war, only to resume at an ever-larger scale in the late 1940s and 1950s. Rather typically, in that period of high labor costs, these

dwelling exhibited economies of floor space and exterior detail. Such houses, termed "Minimal-Traditional" by McAlester and McAlester (1992:477), constituted, in effect, extremely stripped-down versions of Eclectic-Revival styles prevalent in previous decades, particularly the "Georgian" or Classical Revival, "Cape," and "Tudor." The Garrison Colonial emerged during this era as a subtype of the Colonial Revival style which featured a cantilevered second story. These small house forms were in turn largely supplanted by even more stripped-down versions of the Ranch and Split Level styles by the end of the 1960s (McAlester and McAlester 1992:338, 481).

A gristmill property type under the Architecture, Engineering, Decorative Arts theme would include a two- to three-story wood-frame mill usually with a waterwheel, turbine, or some other power system. Waterpowered gristmills have been historically well-constructed wood-frame buildings, with a height of at least two stories necessary to support a waterwheel. In addition, these properties may also include mill traces, dams, bridges, and other resources which have been historically associated with mill seats since the beginning of Euro-American settlement in Delaware. Like many other transportation resources, bridges that have been historically associated with mill seats may have been improved or replaced with highway improvement projects over the years. The proliferation of the automobile during the early twentieth century required the creation of new roads, improvement of existing roads, and more bridges. Bridge designs during the twentieth century often used reinforced concrete. Use of concrete during the late nineteenth and early twentieth centuries frequently mimicked stone-arch structures. As engineers began to become more familiar with working with concrete, they increasingly moved away from concrete-arch designs. Concrete-slab bridges began to be designed for short spans (less than 30 feet long) in Delaware as early as 1910. These bridge types were constructed in the state in great numbers during the 1950s (A.G. Lichtenstein and Associates, Inc. 1996).

C. RESOURCES IN THE BRIDGES 526 AND 527 PROJECT AREA

Warren Mill Historic District (S-9147)

Description: The Warren Mill Historic District is located along Route 326, on a small stretch of land between Betts Pond and Millsboro Pond near the town of Millsboro. The district includes all of Tax Parcels 47 and 15, and is bounded on the south by Routes 326 and 82, Betts Pond and Tax Parcel 48 on the west, Tax Parcel 16.01 on the north, and the railroad right-of-way to the east (see Figure 5). This site contains two parcels of land historically associated with the Warren family who have owned the mill seat since the 1920s. The district encompasses the entire mill seat, including the mill, races, Warren House, and Bridges 526 and 527. This site has been an active milling center since the mid-eighteenth century, and presently contains four contributing architectural resources.

Warren Mill (S-438 and S-9147.1)

Constructed 1929

Tax Parcel: 134-11-15

(Plates 1,2, and 3)

(Survey Form in Appendix A)

Description: The Warren Mill was constructed in 1929 and is located on an eight-acre parcel located on the north side of Route 326. It is a 1½-story wood-frame gambrel-roof building with overhanging eaves and exposed rafter ends (Plate 1). It has a concrete-block foundation, clapboard walls, and six-over-six, double-hung wood sash windows. The front (south) elevation has three-shed roof dormers clad with wood shingles and containing six-light wood windows. There are also two single-leaf wood doors on the first story. The gable ends contain twin six-light wood windows, and there is a single-leaf wood door on the south elevation. The north (rear) elevation has a two-over-two, as well as six-over-six, double-hung, wood-sash windows. A small front-gable vestibule also projects from the elevation, as does a portion of the concrete-block spillway on the west side of the elevation. The spillway was designed to channel the water under the western half of the mill to power a steel turbine system located within the building. The interior of the building consists of one undivided open space on each story and in the basement. The building is vacant. Only a portion of the turbine system was intact at the time of this survey. It is in fair condition but is deteriorating rapidly.

There are two outbuildings associated with the mill (Plates 2 and 3). One is a 1½-story barn constructed in 1930 which was used by the Warren family to house its chickens and small herd of cattle (Roland Warren, personal communication 1999). It is located about 35 feet north of the mill and has a poured-concrete foundation, clapboard walls and an asphalt-shingle-clad gambrel roof with overhanging eaves and exposed rafter ends. The windows are two-over-two, double-hung wood sash and three- and two-light wood windows. The building is now used only for storage and is in very poor condition with much of its wood exterior and windows rotting. A wood-frame garage is located about 15 feet south of the mill and was also constructed circa 1930. It is a one-story building with a concrete-block foundation, clapboard walls, and an asphalt-shingle-clad front-gable roof. The building is in fair condition.

Warren House (Old Granary) (S-9147.2)

Tax Parcel: 134-11-15

Constructed Circa 1920

(Plates 4 and 5)

(Survey Form in Appendix A)

Description: The Warren House, constructed circa 1920, is situated on a 1.45-acre tract on the south side of Route 326 (Plate 4). It is a 1½-story, wood-frame building with a concrete-block foundation, asbestos-shingle-clad exterior walls, interior brick chimney, and an asphalt-shingle-clad, side-gable roof. The windows are two-over-two and one-over-one, double-hung wood units. The north (front) elevation has a shed-roof porch with two wood post supports, and a full-width, shed-roof dormer with three sets of paired, one-over-one, double-hung wood windows. A lean-to addition projects from the south (rear) elevation and a hipped roof addition projects from the east elevation.

The dwelling also has a one-story, wood-frame outbuilding, constructed circa 1930. It has clapboard walls, a corrugated-metal-clad, side-gable roof, and six-over-six, double-hung wood sash units. There is a lean-to bay projecting from the west side of the building, which is in fair condition.

According to the house's present owner, Roland Warren, the dwelling was originally a granary associated with a previous gristmill on the property that burnt in 1923. The building was converted into a dwelling around 1930 and was used by the Warren family.

Bridge 526 (S-9147.3)

Constructed 1935

(Plate 6)

(Survey Form in Appendix A)

Description: Bridge 526, constructed circa 1935, carries Route 326 over a mill trace that flows under the Warren Mill, located on the north side of the road (Plate 5). It is a timber and concrete culvert with concrete abutments. The structure is 10 feet long and 30 feet wide. It also had a timber deck covered with an asphalt wearing surface all on top of the timber frame and concrete superstructure. Wood railings are attached to the deck. A timber spill-gate has been constructed on the south elevation of the structure which controls the flow of water from Betts Pond, located southeast of the mill seat. The structure extends underneath both Route 326 and the Warren Mill, located on the north side of the road, eventually ending at a second spillway. This spillway, located on the north side of the mill, has concrete walls which channel the water flowing from the pond and under the road and mill to a small stream that empties into Millsboro Pond. The structure is in good condition.

According to local property owner Ralph Warren, his father, Wilford Warren, constructed a timber bridge at this site around the mid-1930s. DeIDOT currently maintains the structure. Their bridge maintenance records reveal that the current bridge has a timber frame superstructure at the end facing Betts Pond, with a standard poured reinforced concrete box culvert section added to the north side of the timber structure. The reinforced concrete portion of the structure extends under the Warren Mill and the north side of Route 326. Research at the DeIDOT archives in Dover failed to uncover any information concerning the origins of the structure, or if DeIDOT had reconstructed part of the bridge by adding the reinforced concrete section. However, highway improvement plans from 1956 describe major road improvements, involving road widening and grading improvements, to portions of Routes 326 and 82, as well as other sections of local roads within the Millsboro vicinity. This activity suggests a major DeIDOT initiative to upgrade local roads near Millsboro. It is possible that the section of Route 326 containing Bridge 526 was improved as part of some related but unrecorded project occurring within the same time period. Such a project would have required the widening of the culverts and the addition of the reinforced concrete portion to Bridge 526.

Bridge 527 (S-9147.A)
Constructed 1935
(Plate 7)
(Survey Form in Appendix A)

Description: Bridge 527 carries Route 326 over a small spillway leading from Betts Pond (Plate 6). It is a single-span, concrete-slab and timber culvert structure with concrete abutments and two U-shaped concrete wing walls on its north elevation. The structure is 11.1 feet long with a clear width of 40.1 feet. A wooden-timber portion is located on the south side of the structure at the end of an intake channel lined with wood-timber walls which allows water to flow from Betts Pond to the bridge. A timber railing is located along the south end of the structure along with a wooden gate located below the bridge which restricts the flow of water into the spillway to the north. The timber frame portion of the bridge faces Betts Pond. The concrete-slab section is attached to the north side of the wood-timber structure and has W-beam metal guardrails attached to the north end of the structure. The structure is in good condition.

According to local property owner Ralph Warren, his father, Wilford Warren, constructed a timber bridge at this site around the mid-1930s. Like Bridge 526, DelDOT maintains the structure, and their bridge maintenance records reveal that the current bridge has a timber frame superstructure at the south end facing Betts Pond with a poured reinforced concrete section on the north end of the structure. Based upon Ralph Warren's testimony, a portion of the current structure more than likely contains the timber bridge his father constructed with a concrete box culvert improvement added during the same project involving the same improvements to Bridge 526.

Applicable Historic Context: Lower Peninsula/Cypress Swamp Zone, Urbanization and Early Suburbanization 1880-1940±. Manufacturing and Architecture, Engineering, and Decorative Arts-Mill Seat.

Evaluation: The Warren Mill was listed in the National Register in 1978. This project study for DelDOT finds that the mill, Warren House, and Bridges 526 and 527 collectively form a historic district meeting National Register Criterion C, and also Criterion A. It derives its significance under Criterion C, as it is the only known gambrel-roofed mill in lower Delaware.

The Warren Mill site has been associated with milling since Benjamin Burton constructed the first known mill at this site in 1773. Since that time, at least three mills have been situated at or near where the Warren Mill is located today. A survey map from 1840 also notes the location of at least one other mill at the second stream leading from Betts Pond to Millsboro Pond, which is fed by the spillway which Bridge 527 crosses and is located west of the Warren Mill. The Warren Mill, constructed in 1929, is the last such industrial building erected on the property. Wilford Warren not only erected the mill, but according to his sons Roland and Ralph Warren, he also converted a granary associated with earlier mills into the Warren family home and constructed Bridges 526 and

527 and their associated water-control features. Bridge 526 was built over an existing water channel on which the mill was situated and which emptied into Millsboro Pond. The culvert structure was built as an improvement for the mill to regulate the water flow that powered the mill until it ceased operations after World War II. Bridge 527 also was a gated structure which controlled the flow of water from Betts Pond into a secondary channel, reducing the risk of flooding (Ralph Warren, personal communication 1999). Therefore, the Warren Mill, Warren house, and two culverts are all interrelated as contributing architectural resources in a distinct district associated with continued milling activities along Betts Pond during the early twentieth century. Because the structures within the district all contribute in some degree to the continued development of milling practices at this location since 1773, the district meets Criterion A for local historical significance. The district boundaries should include all of Parcel 15, currently owned by the Warren family and located on both sides of Route 326. This parcel includes all of the contributing architectural resources in addition to two millraces at which Bridges 526 and 527 have been constructed. Historical maps dating from 1840 have shown these to be historically associated with milling activities at this site. In addition, archaeological resources associated with earlier milling activities may potentially be present near the headwaters of these races. An 1840 survey map shows that there was a second mill at the westernmost race, near where Bridge 527 is presently located. In addition, the current property owner, Ralph Warren, reports finding many artifacts that might be associated with a mill at this location including metal bolts and a long heavy timber. One can not entirely rule out the possibility of finding archaeological remains of additional mills situated on the other race, where the Warren Mill is located today. It is known that at least two or three other mills have operated at this location, but it is still uncertain whether they were all located at precisely the same spot as the present-day Warren Mill.

D. RESOURCES IN THE ROUTES 26 AND 17 PROJECT AREA

C.J. Raubacher House (S-2478)

North side of Route 26

Constructed Circa 1918

Tax Parcel 1-34-12-3.05 (Plates 8 and 9)

Description: The C.J. Raubacher House, constructed circa 1918, is a 2½-story four-square dwelling with a concrete-block foundation, interior brick chimney, asbestos-shingle-clad walls, and an asphalt-shingle-clad hipped roof with boxed eaves (Plate 7). The windows are four-over-one, double-hung wood-sash units. The south (front) elevation has a hipped dormer with a four-light and a one-light wood window, and an enclosed one-story hipped porch with two-over-two, double-hung wood sash windows and a two-light wood-paneled door. The west elevation has a one-story, hipped roof bay projects and a single-leaf three-light wood-paneled door on the main block. A one-story front-gable addition projects from the north elevation. It has a concrete-block foundation, wood-paneled walls, and on its west side is a nine-light paneled wood door on a wood stoop. The house is in fair condition.

Two associated agricultural outbuildings are located about 50 feet northwest of the dwelling (Plate 8). One is a one-story barn set on concrete blocks constructed circa 1918. It is a wood-frame building clad with aluminum siding and has an asphalt-shingle-clad, front-gable roof with overhanging eaves and exposed rafter ends. A one-story, front-gable outbuilding is located about one foot west of the barn. The building, also constructed circa 1918, is smaller in scale than the barn and is also set on concrete blocks. It is a wood-frame building with clapboard walls and an asphalt-shingle-clad front-gable roof with overhanging eaves and exposed rafter ends. A lean-to bay projects from the west side of the building. Both of the outbuildings are in fair condition.

Applicable Historic Context: Upper Peninsula Zone, Urbanization and Early Suburbanization 1880-1940±. Agriculture and Architecture, Engineering, and Decorative Arts -- Four-square dwelling.

Evaluation: The C.J. Raubacher House is located on a .465-acre tract on the north side of Route 26, at its intersection with Route 17. The dwelling, constructed during the early twentieth century, first appears on a 1918 USGS topographic quadrangle. Its outbuildings suggest that the property was originally used as a farm. The C.J. Raubacher House does not appear to meet criteria for listing in the National Register of Historic Places. The property is not associated with an event or individual important to history, and as such does not appear to meet Criterion A or B. The complex as a whole does not exhibit characteristics of early twentieth-century domestic or agrarian construction of sufficient importance to meet Criterion C.

Shore Deal Auto Property (S-9148)

North side of Route 26

Constructed Circa 1930

Tax Parcel 1-34-12-3 (Plate 10)

(Survey form in Appendix A)

Description: The Shore Deal Auto Property is located on a 1.48-acre tract on the north side of Route 26 at its intersection with Route 17. The property contains one building. It is a one-story, wood-frame vernacular commercial building constructed circa 1930 which is currently used as a car dealership. Late twentieth-century vertical wood paneling conceals the foundation. The asphalt-shingle-clad, front-gable roof is slightly cantilevered over the south (front) elevation. The windows, original to the building, are four-over-one, double-hung wood sash units. The south (front) elevation has paired windows flanking a single-leaf paneled wood door. There is an exterior chimney on the east elevation, and a hipped roof bay projects from the north (rear) elevation. A wooden commercial sign has been added atop the roof. The building is in good condition.

Applicable Historic Context: Upper Peninsula Zone, Urbanization and Early Suburbanization 1880-1940±. Commerce and Architecture, Engineering, and Decorative Arts -- Front-gable property type.

Evaluation: According to the proprietor of "Shore Deal Auto" who leases the property, the building is about 60 to 70 years old. It was originally used as a gas station, later as a restaurant and bar and a liquor store (Edwards, personal communication 1999). The building does not appear to meet criteria for listing in the National Register of Historic Places. The property is not associated with an event or individual important to national, state, or local history, and therefore, is not eligible under Criterion A or B. The building is also an undistinctive example of an early twentieth-century commercial building which lacks demonstrable significance to meet Criterion C.



PLATE 1: Warren Mill (S-438 and S-9147.1), Northeast View

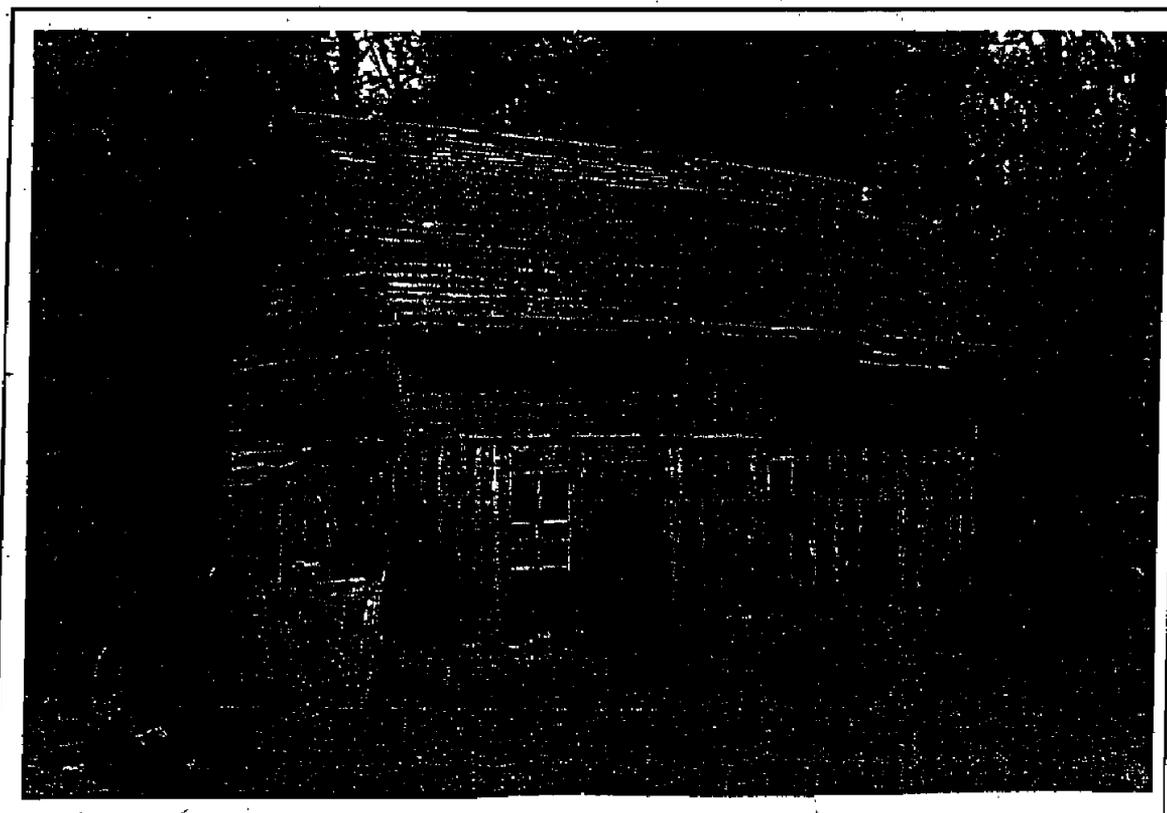


PLATE 2: Warren Mill (S-438 and S-9147.1), Barn, Northwest View



PLATE 3: Warren Mill (S-438 and S-9147.1), Garage, North View

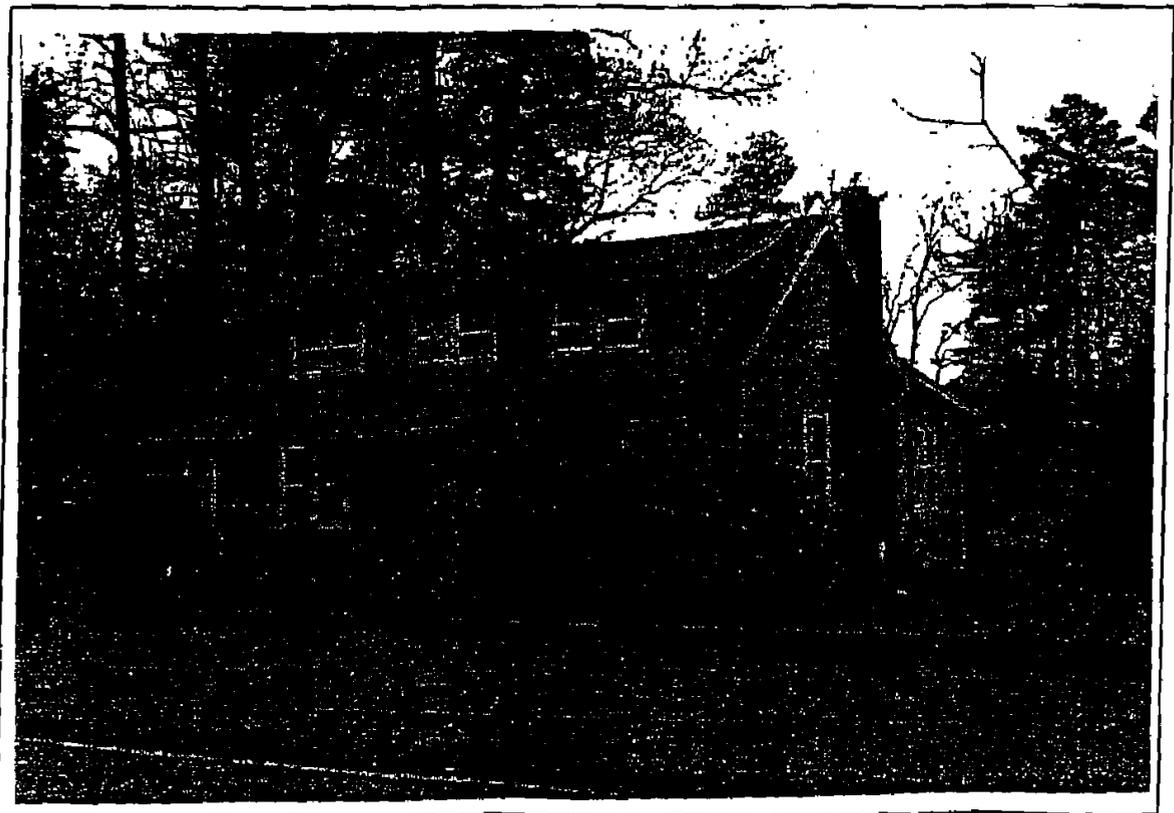


PLATE 4: Warren House (S-9147.2), North Elevation, Southeast View

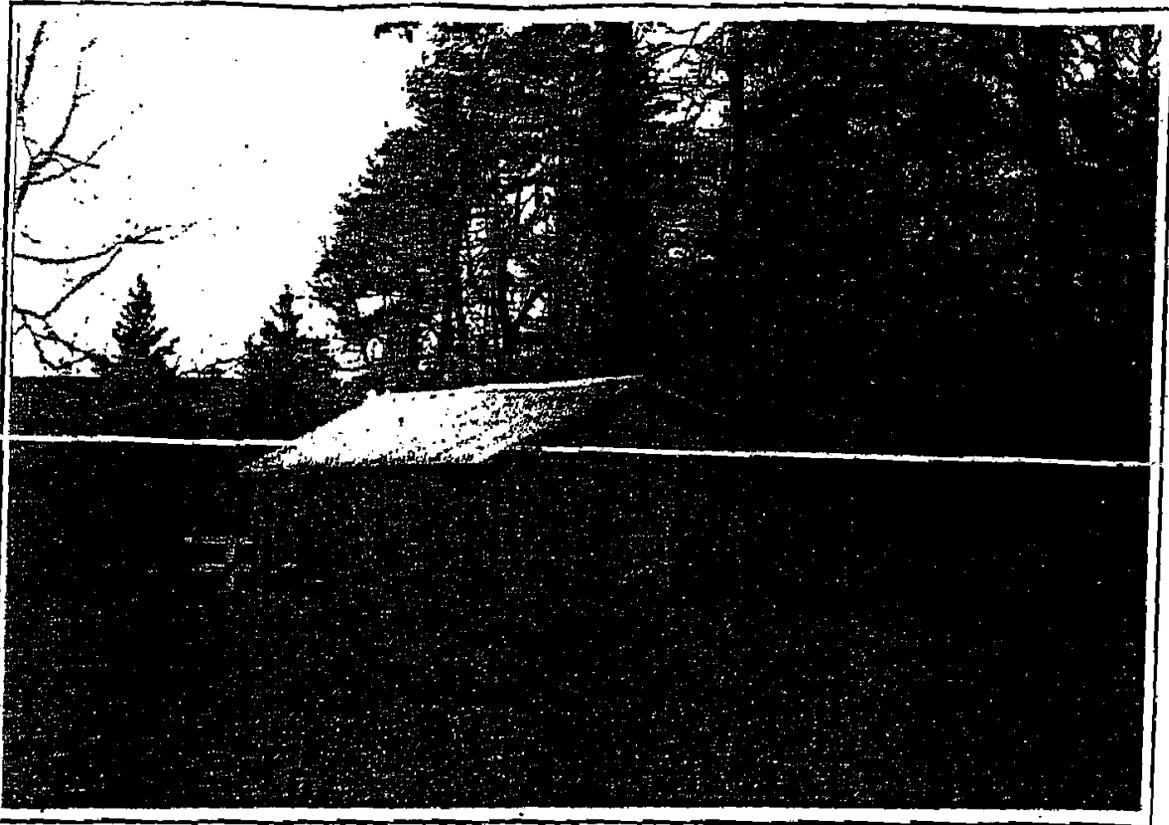


PLATE 5: Warren House (S-9147.2), Outbuilding, Southeast View



PLATE 6: Bridge 526 (S-9147.3), South Elevation, Northeast View



PLATE 7: Bridge 527 (S-9147.4), North Elevation, South View

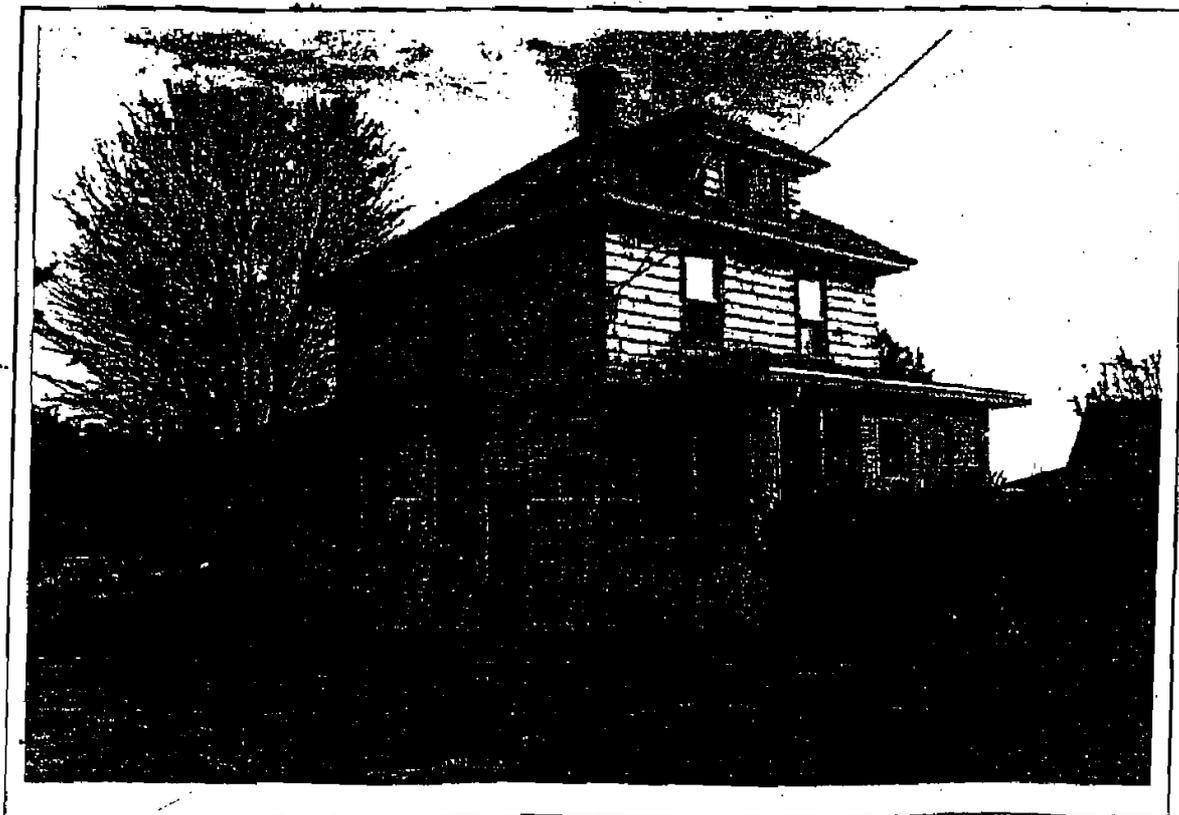


PLATE 8: C.J. Raubacher House (S-2478), South and West Elevations, Northeast View



PLATE 9: C.J. Raubacher House (S-2478), Outbuildings, Northwest View



PLATE 10: Shore Deal Auto Property (S-9148), South and East Elevations, Northwest View