

## PHASE I SURVEY RESULTS

The proposed ROW was divided into arbitrary survey parcels to organize the testing program. Each unit was given a numerical designation and a surname title taken from one or more parcel property owners and/or tenants. Test units placed within that parcel were keyed to the parcel number. Parcel lengths ranged

from 1000 to 5000 feet and corresponded to legal or physical boundaries. The parcels are listed below in Table 1 and shown in Figure 2. Following is a description of the Phase I investigation for each parcel.

It should be noted that the archaeological sites identified within each parcel are categorized by their need for additional field research. Where sites are small and have limited artifact assemblages and integrity, no further work is recommended. The sites for which further fieldwork is recommended may fall into a number of different categories based on the intensity of the recommended additional fieldwork (see the final culture resource management recommendations and Table 4 for more information). For some of these categories, only a sample of sites will be selected for Phase II research, based on the Route 13 Phase I/II research plan (Custer, Bachman, and Grettler 1987). Thus, recommendations for further work in the parcel descriptions may be obviated by later sampling requirements for some of the smaller prehistoric sites and post-1830 historic sites.

#### **PARCEL 46 - DOVER AIR FORCE BASE**

Figure 15 shows the proposed alignment in this parcel. The proposed ROW uses the existing alignment for nearly all of the parcel. The exceptions are the proposed access lanes at Kent 357, which extend about 225 feet east and west of the current Route 13 ROW. One historic structure, labeled "J. B. Wharton," appears on Beers' Atlas very close to the southwest side of The King's Highway (present U.S. 113). This structure is no longer extant, and given the past dualization construction efforts on

---

TABLE 1

---

STUDY PARCELS FOR PHASE I ARCHAEOLOGICAL SURVEY OF U.S. 13  
RELIEF ROUTE, SOUTH TO NORTH ALONG PROPOSED ROW, STAS 0-983.

Parcel #	Parcel Name	Station Nos.
46	Dover Air Force Base	0-30
47	Generals Greene	30-83
21	Carey Farm	83-100
22	King Cole/Wilson Field	100-125
15	Julian Woodlot/Bergold Field	120-140
23	Lord Field	137-151
1	Lafferty Lane Woodlot	151-169
2	Dottie Lewis Woodlot	422-437
3	Wallack Field	169-182
4	Easy Use Directory Office	182-184
5	Berry Warehouse No. 4	184-188
24	Keith Field/Butcavage Woodlot	188-215
25	Rowehl Field	215-227
6	Biondi Woodlot and Field	227-250
7	Garrison/Biondi/Burton	250-262
8	Garrison/Ruyter Fallow Field	262-281
9	Ruyter/Jefferic Woodlot	281-324
10	Jefferic Fallow Field	324-344
11	Larkin Field	344-358
12	Bason Yard	358-362
13	Dover Downs	362-375
14	Davis/Huston Woodlot and Field	375-419
16	Edwin Lewis Field	419-438
17	Kent Christian Center/ Hutchins Woodlot and Field	420

---

---

TABLE 1 (cont.)

---

Parcel #	Parcel Name	Station Nos.
18	Daniels Kent 331 Field	438-456
19	Moore/Corbi/Cosden Woodlot	456-504
26	Laureteco Field	504-510
20	Orth/Lloynd Woodlot and Field	510-535
27	Booker/Short Fields	535-625
28	E. C. Botsch Field	625-645
29	Ellery/R. Botsch Field and Woodlot	645-670
30	Faircloth Woodlot	670-680
31	Willis/McGinnis Field and Woodlot	680-697
32	Kent Construction Company Field	697-709
33	Lamberta Field	709-724
34	Miller Field	724-737
35	Sharoff Field	737-746
36	Pappas Fields	746-784
37	Pratt Field	784-797
38	Belmont Hall Field and Woodlot	797-809
39	Philip Hall Field	809-838
40	Green Meadows Development	838-853
41	Ross/Jurgens/Daniels Fields	853-892
42	Knotts Fields and Woodlot	892-940
43	Mid-Del Auto Parts Woodlot	940-955
44	Savin Fields	955-983
45	Watson Fields	940

**Key:**

ROW Right-of-way

STAs Department of transportation  
centerline station numbers

---

U.S. 113 and the high level of development along the current ROW, it is unlikely that any preserved cultural remains from this site remain intact. Thus, no further work is recommended for this parcel.

#### **PARCEL 47 - GENERALS GREENE**

Figures 15 and 16 show the location of the proposed ROW within this parcel, which is also entirely Dover Air Force Base property. The proposed ROW also stays along the existing U.S. 113 ROW within this parcel with the exception of the access lanes at Kent 357. One historic structure, labeled "Dr. J. F. Baker," appears on Beers' Atlas (Figure 9C) close to the northeast side of The King's Highway (present U.S. 113). This structure is no longer extant, and given the high level of development along the current ROW, it is unlikely that any preserved cultural remains from this site remain intact. Thus, no further work is recommended for this parcel.

#### **PARCEL 21 - CAREY FARM**

Figure 16 shows the proposed ROW and the cultural resources recorded on this farm. This parcel includes 1700 feet of the main trunk of the proposed ROW and an interchange for Lebanon Road. The background research for the prehistoric component of the Carey Farm was discussed above. The limited 1987 surface collection yielded one nondiagnostic red jasper biface fragment, one quartzite flake tool, a chalcedony late stage biface reject, and eleven flakes of chert, jasper, quartz, and rhyolite. The limits of the site must still be determined so as to assess the

extent of the impact of the proposed Relief Route. A second cultural resource on the property is the small two-story frame farmhouse located on the northwest corner of Lebanon Road and present U.S. 113. The structure does not appear on Byles' or Beers' Atlases and its external architectural details suggests it dates from the turn of the 20th century. A Phase II archaeological and historical investigation is recommended for both of these sites.

#### PARCEL 22 - KING COLE/WILSON FIELD

Figure 16 shows the proposed ROW and the cultural resources recorded on this farm. The eastern one-third of this field within and adjacent to the proposed ROW was subjected to pedestrian survey and four loci of cultural material were noted. Three of these were isolated find spots of unifacial flake tools (designated Wilson A, B, and C), two of which were outside the proposed ROW. A historic scatter of 19th and 20th century redware, whiteware, bottle and window glass, and coal clinkers was noted within a 300 foot radius of the ruins of structure K-477. A dwelling labeled "C. Kimmey" is present at this location on Byles' 1859 Atlas of Kent County (Figure 8B) and on Beers' 1868 Atlas of Delaware (Figure 9C).

Two other loci of activity were noted for this farm. The previously recorded prehistoric site, 7K-C-13, lies in the field about 800-1000 feet west of Survey Station (STA) 115 and produced Wolfe Neck, Coulbourne, and Mockley ceramics of the Woodland I Period. A second historic structure is noted in a woodlot along the east bank of the St. Jones River about 1000 feet west of STA

100. This structure is labeled "J. Izat" on Byles' (Figure 8B) and "W. Dyer" on Beers' Atlases (Figure 9C). A pedestrian survey of the Izat/Dyer location revealed the presence of four ruined 20th century concrete block foundations, which undoubtedly have nothing to do with the resources noted on the mid-19th century atlases. Presumably the modern foundations were built on the site of the earlier farmstead, which now is present only as an archaeological site. Delaware DOT plans to purchase this entire farm and use selected parts of it for borrow operations. The limits of all of these sites must be known before the borrow operations can begin. Therefore, Phase II investigations are recommended for the 7K-C-13 site, the Kimmey house site (K-477), and the Izat/Dyer site.

#### PARCEL 15 - JULIAN WOODLOT/BERGOLD FIELD

Figure 17 shows the proposed ROW, the location of subsurface test units, and the cultural resources recorded for this property. This parcel includes land to be taken at the southeast corner of present Route 13 and Lafferty Lane and includes a section of the main trunk of the proposed highway and a service road that will connect present Route 13 with Lafferty Lane once the new road is constructed. Each section of road was subjected to a line of STPs at 40-foot intervals. Shovel test pits 15-1 through 15-69 were placed along the centerline of the service road through a mixture of fields in succession, small borrow pits, a no-till bean field, and abandoned orchards. A part of the latter was still in crop and could not be tested. Soils were predominantly gray and yellow silts and clays and little was

found until the excavation of STPs 15-60 through 15-62, on a low sandy rise in the bean field on the south edge of Lafferty Lane. These units yielded concentrations of 19th century ceramics and glass, brick fragments, and a 1903 or 1908 U.S. penny. Beers' Atlas shows a "Wm. Minas" living at this approximate location in 1868 (Figure 9C) and it is likely that the artifacts are associated with the dwelling indicated on that map. A Phase II evaluation is recommended for this site.

Shovel test pits 15-70 to 15-83 were placed along the center line of the main trunk of the proposed ROW through a fallow field and produced only a single artifact: a chert flake in STP 15-71. Several more STPs placed within a few feet of that unit failed to produce any more cultural material and no further work is recommended for that section of the proposed ROW.

#### PARCEL 23 - LORD FIELD

Figure 17 shows the proposed ROW and the cultural resources recorded for this property. The soybean field comprising this parcel is traversed by a section of the main trunk of the proposed ROW and an interchange ramp for an exit with present U.S. 113. It is owned by Fred, Charles, and Ralph M. Lord and was subjected to a complete pedestrian survey, which revealed two loci of prehistoric activity and one of historic. The Lord-B site consisted of late 19th and 20th century ceramics and glass found in a strip measuring 150 by 375 feet along the north side of Lafferty Lane. The scatter extends eastward from a gas station at the northeast corner of Lafferty Lane and present U.S. 113. The artifact density approaches 3 to 5 artifacts per square



yard in many places, which is far greater than normal for random agricultural field scatter in Delaware, and suggests that some sort of structure or structures stood at this location. Much of the ceramics consists of thick, heavy ironstone flatware and hollowware normally associated with a restaurant. Historic maps and atlases (Byles 1859, Beers 1868, USGS 1906, Bausman 1940) showed no structures present at this location.

The Lord-C site is located along the east side of a frame residence north of the gas station which fronts onto existing U.S. 113. In the field directly behind the house, amidst a thin scatter of ceramics and glass probably associated with that house, a nondiagnostic black chert medial/distal biface fragment, a jasper utilized flake, and two fire-cracked rocks were recovered.

The Lord-E site consists of just one artifact: an argillite cache blade (Plate 1) found on a rise on the east side of a bay/basin feature. This was recovered from near the centerline of the main ROW at about STA 148.5. It was made from a large argillite flake and measures four and five-eighths inches long and two and three-eighths inches wide. Since there exist only five known argillite caches of various sizes from Delaware prehistoric sites (Naaman's Creek site, Crane Hook site, Kiunk Ditch, Barker's Landing, and Coverdale site) (Custer 1984a, 1984b), and since "one argillite cache blade" is a non sequitor, the recovery of this artifact can not be dismissed as an isolated "field find" and Phase II research is recommended. Phase II research is also recommended for the Lord-B and Lord-C sites.

PLATE 1

Argillite Cache Blade from the Lord-E Site,  
U.S. 13 Relief Route, Phase I Survey



## PARCEL 1 - LAFFERTY LANE WOODLOT

Figure 17 shows the proposed ROW, the subsurface test units, and the cultural resources recorded for this parcel. The woodlot comprising this parcel measured 1800 feet in length and was owned by six different parties. Shovel test pits 1-1 through 1-45 were placed along the centerline running from southwest to northeast. Only one test unit produced cultural material: a jasper uniface flake tool was found at 1.6 feet below the surface in STP 1-1. Most of the soils in the woodlot were poorly-drained Othello series gray clayey silts and mottled orange and gray clays. STP 1-1 was located on a section of well-drained Sassafras loam and is probably related to the Lord-C and Lord-E sites in the nearby potato field.

A second line of four STPs was placed at 40-foot intervals at a right angle running east from STP 1-3 and a third line of four STPs running east from 1-5. These 8 STPs were designed to test for the presence of artifacts on some high ground adjacent to a poorly-drained area which formed part of the headwaters of the Morgan Branch of the Little River. It was also hoped that more artifacts could be found to expand the find made in STP 1-1. However, despite the favorable setting, this section of the woodlot failed to produce any further cultural material. That fact notwithstanding, it is likely that the unifacial tool found in the shovel test pit is not an isolated find and the presence of other artifacts in the vicinity is a distinct possibility. Therefore, a Phase II archaeological investigation is recommended for the vicinity of STP 1-1.

#### PARCEL 2 - DOTTIE LEWIS WOODLOT

Figure 17 shows the proposed ROW and the subsurface test units excavated for this property. The Lewis woodlot lies due north of the Lord potato field and is the planned location of a portion of the Puncheon Run Connector. This will run west from approximately STA 155 to join with existing U.S. 13 at about STA 315 (near present Webbs Lane). Only that portion east of present Route 113 was surveyed for this report. A total of 40 STPs were placed at 40-foot intervals along the centerline of this parcel, which is comprised mostly of an abandoned, heavily overgrown orchard. Soils consisted of gray-brown, brown, and orange silts and clays. All test units were culturally sterile and no further work is recommended for this parcel.

#### PARCEL 3 - WALLACK FIELD

Figure 17 shows the proposed ROW, the subsurface test units, and the cultural resources recorded for this property. The fallow field owned by Mr. and Mrs. Chester Wallack runs from STAs 169 to 182 on the south side of South Little Creek Road. The Wallack residence on the property, just west of the proposed ROW, is an early- to mid- 19th century farmhouse that had not been recorded by the BAHP. It appears on Byles' Atlas under the name "J. C. Pennewill" (Figure 8B) and on Beers' Atlas as "Silverleaf/Dr. F. Baker" (Figure 9C). The proposed ROW also crosses the edge of a woodlot at the rear of the Wallack residence, which at one time was adjacent to the Wallack farm outbuildings. The Wallacks have in their possession an 1890s photograph of the farm showing the house and two large outbuildings situated behind it. No original

outbuildings exist today, but the Wallacks know the locations of several archaeological features on the property, including outbuilding foundations, refuse pits, and the placement of several other more ephemeral outbuildings now removed. Although none of these features fell within the proposed ROW, it was felt that refuse pits, stockpens, slaughter areas, or other cultural features might be present within that section of the proposed ROW which traversed the woodlot. Therefore, the archeological survey focused on two areas: (1) the centerline of the ROW and (2) the western edge of the ROW which cut through the Wallack woodlot and the side yards of the house. A total of 21 STPs were placed along the centerline, all of which were culturally sterile. An additional 29 units were placed along the western edge of the ROW to test yard areas and these units produced low amounts of 19th and 20th century ceramics, glass, metal, brick, mortar, coal, coal ash and other refuse in a low density sheet midden form. No clear features were uncovered during the testing and no further archaeological research is recommended for this parcel. However, the Wallack house will be recorded with the Bureau of Archaeology and Historic Preservation and it is recommended that an architectural investigation be conducted of the structure.

#### **PARCEL 4 - EASY USE DIRECTORY OFFICE**

Figure 17 shows the proposed ROW, the subsurface test units, and cultural resources recorded for this property. The proposed ROW crosses South Little Creek Road at about STA 182 and enters property utilized for the offices and parking lot of the Easy Use Telephone Directory Company. According to a local informant, a

Mr. Thompson who lives across the road from the Directory property, a two-story frame dwelling stood in the yard within the proposed ROW until about 1985, when it was demolished. A dwelling appears on Beers' Atlas in this approximate location under the name of "E. Smith" (Figure 9C), although the exact location could not be determined from the map. Ten shovel test pits were placed in the yard in a grid at 10-foot intervals in order to locate structural and yard features associated with the building. Late 19th and 20th century domestic and structural materials (including much demolition debris) were present in all of the holes beneath a sand fill layer 0.3 to 1.0 feet in depth. In addition, STP 4-3 produced cultural material in an organic soil matrix down to a 2.9 feet below surface. This is thought to be a feature, perhaps a cellar hole. The structure does not appear on Byles' or Beers' Atlases. A Phase II investigation is recommended for this site.

#### PARCEL 5 - BERRY WAREHOUSE NO. 4

Figure 18 shows the proposed ROW and the subsurface test units excavated on this property. The parcel is comprised of the Berry Warehouse No. 4 property (Roadway truck terminal) from STAs 184 to 188. Much of the property is covered by the asphalt parking lot for the trucks, but there remained a small grassy portion north of the parking lot and on the south side of an unnamed tributary to the Morgan Branch of the Little River. This was tested with two lines of STPs totaling nine units, all of which produced gravelly sand fill over gray organic silts and silty clays. All units were culturally sterile and the area

appeared to be a recently filled flood plain. No further work is recommended for this portion of the ROW.

#### PARCEL 24 - KEITH FIELD/BUTCAVAGE WOODLOT

Figure 18 shows the proposed ROW and the cultural resources recorded for this property. This parcel extends from STAs 188-215 and is named the Keith/Butcavage parcel for the two principal landowners: Dover attorney Nicholas V. Keith and nearby residents Nick and Lorraine Butcavage and family. Other residents own small portions of the proposed ROW. Previously recorded prehistoric site 7K-D-22 lies within the proposed ROW at the confluence of two minor tributaries to the Little River. It is located at about STA 193 in the no-till cornfield owned by Mr. Keith. Little information about the site was available from state files and the only reported collection is in private hands and the collector could not be located. Although the site offered poor surface visibility, it was subjected to a pedestrian survey by the UDCAR crew. Despite the visibility handicap, the site proved to be quite large and produced numerous artifacts. Material recovered included fire-cracked rock, cobble and pebble jasper cores, and quartz debitage of various sizes up to 3 inches across. Also found was a rough black chert biface with heavy edge wear at the distal end, a flake of exotic rhyolite material, several very high quality jasper flakes, and a jasper end scraper made on a pebble flake. The site covers about 10 acres and includes a 6-foot rise and a low terrace sloping to the stream confluence to the southeast. No subsurface testing was conducted at the site during the Phase I investigation. A Phase II

excavation is recommended for this location.

The remainder of the proposed ROW within this parcel traversed stream and floodplain areas which were very wet despite the fact that they had been altered by recent drainage ditches. A general pedestrian survey and auger testing at selected locations indicated that all of the soils between STAs 190 and 215 were very poorly drained and extremely unlikely to yield intact cultural remains.

Other than the Phase II investigation recommended for 7K-D-22, no further work is recommended for this parcel.

#### PARCEL 25 - ROWEHL FIELD

Figure 18 shows the proposed ROW across this property. The soybean field comprising this parcel extends from the north side of North Little Creek Road to the edge of the woodlot at STA 227 and is owned and tilled by Bernard Rowehl, who lives in the farmhouse about 1200 feet east of the ROW centerline. The field was subjected to pedestrian survey and no significant cultural material was found. No further work is recommended.

#### PARCEL 6 - BIONDI WOODLOT AND FIELD

Figure 19 shows the proposed ROW and subsurface test units excavated on this property. That stretch of ROW from STA 227 to 250 is owned by attorney O. Francis Biondi of the Wilmington law firm Morris, Nichols, Arsht, and Tunnell. The initial section, to STA 235, is composed of a wet woodlot which was subjected to shovel-test pitting along the centerline. Twenty STPs placed at 40 foot intervals failed to produce any cultural material.



The remaining 1500 feet of this parcel was soybean fields which were subjected to pedestrian survey. Nothing was found and no further work is recommended for this parcel.

#### PARCEL 7 - GARRISON/BIONDI/BURTON

Figure 19 shows the proposed ROW, the locations of subsurface test units, and the cultural resources recorded for this property. Three landowners make up this parcel from STA 250 to the south side of White Oak Road: Roland Garrison, a local farmer, owns the section of cornfield near STA 250; attorney O. Francis Biondi owns the woodlot to STA 254; and Thomas E. Burton owns from STA 254 to the south side of White Oak Road. Garrison's cornfield and Biondi's woodlot were investigated with shovel test pits at 40-foot intervals and a total of 15 STPs failed to produce any cultural material.

The Burton woodlot is the site of the former Robinson's Brickyard, which operated from about 1910 to the late 1940s. It appears on none of the historic maps and atlases consulted for this report. Roland Garrison's son, George, who is about 70 years old and has lived on the farm across the road since the 1930s, recalled that the brickyard contained a kiln in the northwest corner, drying sheds to the south of the kiln, a two-story frame office building in the northeast corner (well outside the proposed ROW), and a crescent-shaped road which entered the brickyard east of the office and curved back to the drying sheds before exiting at the northwest corner near the kiln.

The rear part of the lot was apparently used as clay pits for the kilns and is almost totally dug out to a depth of three

feet below the surface. The disturbed area measures about 600 by 800 feet and no archaeological testing was conducted within it. The 150 by 450 foot strip of woodlot along the road front, the reputed location of the commercial brickyard buildings, appeared to be undisturbed and was subjected to systematic shovel test pitting. Three rows of 9 STPs each were placed in parallel rows at 40, 80, and 120 feet back from the south edge of White Oak Road. These were designated 7-A-1 through 7-A-9, 7-B-1 through 7-B-9, and 7-C-1 through 7-C-9, and were numbered west to east.

Shovel test pit 7-A-1 contained whiteware, yellowware, clear and colored glass, coal, and brick fragments, and appeared to be a refuse area for a nearby dwelling. A house lies about 100-150 feet west of 7-A-1 and it appears to be only 50-60 years old. The debris could have come from the occupants of that structure, but it is more likely that it came from activities at the brickyard.

Shovel test pit 7-A-2 revealed a mortared brick foundation 3 inches below the surface which extended in an east-west direction. A 3x3 foot test unit was opened up around the STP and revealed that the feature was two bricks wide and three deep. In profile, the brick pattern consisted of a two upper layers of stretchers supported by a bottom row of headers. No cellar hole was evident on either side of the foundation and artifacts recovered included over 200 coal fragments, wire nails, curved and flat clear glass, amber bottle glass, and milk glass. Although the evidence from this STP is not conclusive, this feature is in the general location of the brickyard kiln and could be related to that structure.

Test unit 7-A-3 revealed a second brick feature: an extremely soft mortared brick floor that is three bricks deep. The mortar is buff-colored and contains almost no sand. In fact, both the bricks and the mortar are the same consistency as the gray clay subsoil beneath them. Additional STPs placed five feet away at the four cardinal points established that the intact floor extends over an area of at least 100 square feet. Soil samples of the bricks, mortar, and gray clay subsoil were taken for future analysis.

Shovel test pit 7-A-4 was sterile, but 7-A-5 through 7-A-9 produced a lamp chimney glass fragment, several different kinds of redware, plain and Gaudy Dutch whiteware, flow blue, Rockingham, and hand-painted porcelain. Similar materials were found in 7-B-6 through 8 and 7-C-7 through 9. No foundation remains, cellar holes, or other features were found in these eleven STPs. The entire pattern suggests the presence of a 19th century domestic structure which was in use from well before the Civil War through the latter part of the 19th century. This structure could have been the two-story frame office building recalled by George Garrison. Beers' Atlas of 1868 shows two structures located on the south side of White Oak Road (labeled "Dr. H. Ridgley" - Figure 9C) in the vicinity of the STPs containing the 19th century material. It is possible that one of these structures served as a residence in the 19th century and was later re-used as the office for the brick manufactory. However, no artifacts associated with the brickyard (i.e., 20th century materials) were found in the test units, which is contrary to expectations if the previous supposition were true.

It appears as if the domestic operation ceased and the house was destroyed prior to the establishment of the brickyard and its office building.

One other feature was found in STP 7-C-3. It was a dry-laid brick pavement just one course thick which was encountered at 6 inches below surface. The organic soil matrix directly above it contained 2-inch diameter wire metal rings, window glass fragments, brown bottle glass fragments, and a 1930 U.S. cent. The feature is in the general vicinity of the drying racks recalled by George Garrison.

In summary, the excavations on Thomas Burton's property produced evidence of a multi-component historic site spanning the 19th and 20th centuries. Artifacts and intact features related to the brick manufactory were discovered in the northwest corner of the lot within and adjacent to the proposed ROW. A domestic site ranging from about 1830 to 1900 was found in the northeast corner of the lot, well out of the proposed ROW. A Phase II investigation is recommended for this site to determine the true age of the brickyard and its possible relation to the 19th century domestic occupation.

#### PARCEL 8 - GARRISON/RUYTER FALLOW FIELD

Figure 19 shows the proposed ROW and the subsurface test units excavated on this land. Extending from STAs 262 to 281, the Garrison/Ruyter fields are actually a mosaic of fallow and cultivated fields, dredged stream banks, more clay pits for Robinson's Brickyard, and narrow strips of woodlots and are owned partially by Roland Garrison and partially by Fred Ruyter of

Sharon Hill Road, Dover. Between STAs 262-269 and 271-274 the centerline ROW is completely disturbed and could not be tested. Shovel test pits were placed on the north and south banks of the channelized Little River (vicinity of STAs 269 to 271) and in the fallow corn field from STAs 274 to 281. A total of 32 test pits were placed in the undisturbed sections, none of which produced cultural material.

Associated with the relief route construction is the realignment of White Oak Road to accommodate an overpass. The realignment will be routed through Garrison's corn field a few feet north of the present road. The corn field was examined by pedestrian survey and found to be a no-till operation which afforded extremely limited surface visibility. However, one locus of cultural activity was recorded. A bare patch of soil on the north side of White Oak Road about 200 feet west of the channelized Little River produced a surface scatter of late 19th and 20th century ceramics, glass, nails, brick, mortar, and asphalt roofing shingle. The surface scatter measures about 70 feet east-west and extends 130 feet north from the drainage ditch on the north side of White Oak Road. According to George Garrison, a two-story frame tenant house with a small cellar stood at this location until taken down in the early 1970s. Nothing is depicted at this specific location on Byles' or Beers' Atlases. The proposed ROW would traverse a small segment of the presumed roadside yard of the former tenant house and a line of 12 STPs was placed at 10-foot intervals through the surface scatter in an attempt to locate intact subsurface features

associated with the occupation. Although numerous late 19th and 20th century artifacts were recovered in the STPs, all cultural material was from the plowzone and no features were located. The proposed ROW will traverse a small portion of the surface scatter adjacent to White Oak Road and a Phase II investigation is recommended for this site.

Since the rest of the cornfield offered such poor surface visibility, a line of 30 STPs was placed at 40-foot intervals across the field and 6 additional STPs were excavated at selected locations off the centerline. Soils were once again poorly-drained clayey silts and only one artifact was recovered in these units: a jasper side-notched projectile point was found in the plowzone of unit 8-29B. Additional units placed in the vicinity of that unit failed to produce any further cultural material and the biface appears to be an isolated find. Further Phase II archaeological investigation is recommended for the vicinity of STP 8-29B to verify the initial impressions.

#### PARCEL 9 - RUYTER/JEFFERIC WOODLOT

Figures 19 and 20 show the proposed ROW, the subsurface test units excavated, and the cultural resources recorded for this woodlot. This large, poorly-drained woodlot extends from STAs 281 to 324 and is owned partially by Fred Ruyter (STAs 281 to 287) and partially by Jefferic Enterprises of Wilmington (STAs 287 to 324). Although the proposed ROW through this woodlot is 250 feet wide, a toll plaza is planned at an unspecified location somewhere between STAs 281 and 324. The plaza was estimated to be about 550 feet wide, so the archaeological testing program was

altered accordingly. One row of STPs labeled 9-1 through 9-107 were excavated through the length of the woodlot along the centerline. A second row of STPs labeled 9-A-1 through 9-A-104 was placed 200 feet east of and parallel to the centerline. Finally, a third parallel row of pits, labeled 9-B-1 through 9-B-91, was excavated 200 feet to the west of the centerline. All shovel test pits were placed at 40 foot intervals. Soils were generally gray clays and clayey silts of the Othello series, and of the 302 STPs excavated in these three lines in this woodlot, cultural material was recovered in just one: a single jasper flake was found in the subsoil of STP 9-B-27. This also happened to be the only place in the woods where well-drained, uniformly orange sandy silt subsoils were encountered. Several more STPs and a 3x3 foot test unit placed at intervals of 10 and 20 feet away from 9-B-27 yielded several more flakes, charcoal, and fire-cracked rock. The setting is a peninsula-shaped terrace that slopes southwest, west, and northwest to an unnamed ephemeral stream about 250 feet away. The elevation change over this distance is only about 2 feet, but that is significant in this otherwise very flat woodlot. A Phase II investigation is recommended for the site.

#### **PARCEL 10 - JEFFERIC FALLOW FIELD**

Figure 20 shows the proposed ROW, the subsurface test units excavated, and the cultural resources recorded for this property. Jefferic Enterprises owns all of this parcel, which was a fallow field extending from the Parcel 9 woodlot to the south side of Persimmon Tree Lane (STAs 324 to 344). Two lines totaling 53

shovel test pits was placed along the centerline and on an adjacent terrace, and prehistoric flakes and fire-cracked rock were found in STPs 10-6, 10-7, 10-11, and 10-13. The setting is a 3 foot rise on the east side of an ephemeral tributary to the Little River. The soils are poorly-drained, slightly sandy silts and clays and are not generally preferred for prehistoric sites, but the slight elevation is apparently significant in an area of minimal relief.

The proposed ROW passes just a few yards southwest of the ruined farmhouse on the south side of Persimmon Tree Lane. This farm has been recorded in the BAHP files as K-996 and appears on Byles' and Beers' Atlases under the name of "Wm. Cowgill" (Figures 8B and 9C). A Phase II investigation is recommended for the prehistoric locus found on the rise and for the Cowgill Farm (K-996).

#### PARCEL 11 - LARKIN FIELD

Figure 21 shows the proposed ROW and the cultural resources recorded for this property. This parcel, from STA 344 to 358, is owned by Mrs. Lily Larkin of 1285 Persimmon Tree Lane and was subjected to pedestrian survey. The field was in no-till corn and visibility was low, but ground surface could be seen. However, no cultural material was found and no further work is recommended for the Larkin field.

The Larkin farmhouse has not been recorded with the BAHP but it does appear on Byles' Atlas (1859) under the name "W. L. Cannon" (Figure 8B) and on Beers' Atlas (1868) under the name "S. T. Bryan" (Figure 9C), so the site has been occupied for at least



130 years. The proposed ROW is expanded at this point from 250 feet to 400 feet as the road is elevated to pass over Persimmon Tree Lane and the Dover-Leipsic Road. The ROW will take part of the front yard of the house and Phase II archaeological testing is recommended.

#### PARCEL 12 - BASON YARD

Figure 21 shows the proposed ROW, the subsurface test units excavated, and the cultural resources recorded for this property. The Clement and Virginia Bason house, yard, and tilled field occupies the entirety of Parcel 12 from STA 358 to STA 362. A 90-year old informant (Mrs. Bason's father) recalled the house being built in the early part of the 20th century and it is present on Bausman's 1940 map (Figure 13), but not on the 1906 USGS topographic map. A shovel test pit grid was placed in the rear and side (north) yards to test the accuracy of this recollection through the recovery of artifacts and the presence of intact subsurface features. A total of 25 STPs and one 1x2 foot test unit were placed in the yard in the form of both STP lines and specific test locations. All of the STPs contained plowzones and all produced architectural and domestic historic artifacts in those zones but not below. Coal and coal ash were by far the most common artifacts and glass, ceramics, and nails were also found in abundance. Two STPs and the 1x2 foot test unit were placed in a 33x40 foot depression in the rear yard. This feature was thought to be the former location of an outbuilding, perhaps a barn. However, the three test units failed to produce any subsurface disturbances (other than a

plowzone) or indications of a foundation, piers, or other structural supports. The recovered artifacts included a few pieces of window glass, coal, and nails and the depression is now thought to be a vegetable garden.

Shovel test pit 12-B-3 was placed in a shallow grassy depression 30 feet northeast of the house and in a direct line out from the back door. The depression was 3 feet in diameter and the test unit produced a fill level down to 22 inches below the surface, where the excavation had to be terminated due to the presence of a large rock. The feature is thought to be a former privy.

Other features were recorded from the Bason yard during a pedestrian survey and these included: 1) a possible well along the north foundation wall of the house, 2) a 4-foot diameter grassy depression in the rear yard about 25 feet north of the privy, thought to be a septic tank, 3) a linear vegetation anomaly north of the garage which could be a foundation, and 4) four extant frame outbuildings, including the aforementioned garage, two chicken sheds, and a tool shed.

The Phase I investigation of the Bason house has produced evidence that intact yard areas and subsurface features are present and a Phase II archival and archaeological survey is recommended for the property.

#### **PARCEL 13 - DOVER DOWNS**

Figure 21 shows the proposed ROW, the subsurface test units, and the cultural resources recorded for this property. The proposed ROW centerline next traverses 1300 feet of Dover Downs

racetrack property west of the Dover-Leipsic Road (Kent 88). A line of STPs was placed along the centerline from STAs 362 to 371 and all revealed a filled, disturbed stratigraphy devoid of cultural material. However, a pedestrian survey of two brush-covered sandy rises in the vicinity of STAs 372 and 374, one in the ROW and one just west of it, produced historic and prehistoric artifacts. "Hill A", within the proposed ROW at STA 374, is a very prominent knoll measuring 150x300 feet and extending to 9 feet above the surrounding poorly-drained areas (crest at 29 feet above sea level). A swampy woodlot lies to the south and west and low order streams course around the base of the rise on the north and east sides. The streams and swamps form the headwaters for the Muddy Branch of the Leipsic River. The knoll had been recently scarred by a large bulldozer contracted by Dover Downs to clear away trees and brush, but many segments of the knoll slopes and crest were intact and flakes and fire-cracked rock were observed on the surface. Thus, three 3x3 foot test units (13-A, 13-B, and 13-C) selectively placed on the crest of the hill produced Wolfe Neck ceramics, a teardrop-shaped dark green chalcedony biface, flakes of high-grade cryptocrystalline materials, and fire-cracked rock in an undisturbed context. No plowzone was evident in the profiles.

The second rise, termed "Hill B," is situated about 250 feet southwest of Hill A and is 2 feet lower in elevation (27 feet above sea level). Auger testing revealed that the surrounding low ground has now been filled to the point that the original contours of the knoll are obscured. All of the ground on the south, southeast, and east slopes of this knoll had been filled

and graded to the top of the rise. A pedestrian survey of some bare patches of ground on the crest of the rise produced a few flakes and fire-cracked rock and several dozen sherds of scratch blue stoneware, trailed slip redware, and blue and gray "Westerwald-like" stoneware (probably British), but no creamware, pearlware, whiteware, or ironstone. No building debris or features were apparent. The surface scatter suggested the presence of a multi-component site consisting of an undated prehistoric occupation and a pre-1762 (date of introduction of creamware into the British North American colonies) historic domestic occupation. Accordingly, two 3x3 foot test units (13-D and 13-E) were selectively placed on the rise to obtain further information about the temporal span of the occupations and to check for the presence of features. Test Unit 13-D, placed on the west side of the crest in an area where much of the historic ceramics had been found, exhibited an historically unplowed context and was excavated to a depth of 43 inches below the surface. Artifacts were disappointingly few and only 11 flakes, 1 FCR, 3 pieces of charcoal, and one oxidized nail fragment were found and no historic or prehistoric features were encountered.

However, Test Unit 13-E, placed on the eastern side of the crest of the rise in a second concentration of surface-collected 18th century ceramics, somewhat unexpectedly produced over 300 prehistoric high grade quartzite flakes of various sizes, a biface distal fragment, and fire-cracked rock down to 30 inches below the surface. Once again, the context was historically unplowed. Although diagnostic artifacts were not obtained from the unit, the large number of flakes suggests the presence of an

intense prehistoric occupation on this rise.

In sum, the testing on the Dover Downs parcel produced cultural material in two locations, both of which were relatively undisturbed and contained artifacts in good context. Hill A has a prehistoric component including Wolfe Neck Complex materials and Hill B a prehistoric chipping feature and an early 18th century domestic site. Hill A possesses well-drained silty and sandy soils, is virtually surrounded by swamps and streams, and is one of the most striking pieces of relief seen in the eastern section of Kent County. It is expected that prehistoric remains from every period of Delaware prehistory could be found on this rise and a Phase II investigation is recommended for the site. The occupation on Hill B lies some 125 feet west of the proposed ROW and likely will not be affected by the road construction. However, some further work is recommended to ascertain whether Hills A and B are actually separate sites or two parts of the same site. Thus more Phase II work is recommended in the Hill B vicinity also.

#### PARCEL 14 - DAVIS/HUSTON WOODLOT AND FIELD

Figures 21 and 22 show the proposed ROW, the subsurface test units excavated, and the cultural resources recorded for this property. This woodlot and adjacent beanfield extend from STAs 375 to 419 and contain two landowners: Richard J. Davis and Mrs. Ruth Huston David, whose family (Huston) has owned most of the woodlot for several decades. It was deemed the Davis/Huston parcel and was composed of gently rolling topography of alternating sandy rises and low, poorly-drained areas.

The Davis beanfield extends from STA 375 to STA 382 and was surface-collected in November, 1987 with about 30 percent ground surface visibility. Six loci of prehistoric activity were found along the eastern edge of the proposed ROW and were termed Davis-A through Davis-F. All of these locations were on a gentle, sandy slope draining westward to Muddy Branch and their cultural contents are summarized below.

Davis-A: 1 quartz flake  
Davis-B: 1 quartz chopper-like biface  
Davis-C: 1 pebble quartz flake, probable expedient tool  
Davis-D: 1 quartz flake  
Davis-E: 3 large fire-cracked rocks in a 12 foot line,  
          probably representing a plowed hearth  
Davis-F: 1 large fire-cracked rock

These locations may all be manifestations of the same site and a Phase II investigation is recommended to determine the significance and limits of these scatters.

The Huston woodlot consisted of alternating areas of well-drained sandy rises and poorly-drained low spots characterized by clayey soils. The well-drained areas were subjected to systematic shovel test pitting and the intervening low sections were tested with a mixture of STPs and auger tests. In this manner, three loci of prehistoric activity were recorded, all of which were on the well-drained, sandy, high ground. The first was found on a rise overlooking a low order tributary along the western edge of the ROW at STA 378. One flake came from STP 14-6 and 2 flakes and one fire-cracked rock from STP 14-8A. However, several more test pits placed in close proximity to these units failed to produce any more artifacts, and no further work is recommended for this location.

A low sandy terrace at STA 387 produced flakes in 3 holes, STPs 14-33 through 14-35. Two lines of STPs were laid out perpendicular to the ROW and extending westward up a slope to a second terrace some 130 feet outside the ROW. Several holes placed on this terrace (STPs 38, 39, 43-48) produced large amounts of fire-cracked rock, flake debitage, plus one core, one unifacial tool, and one nondiagnostic bifacial tool. Test holes placed between the two areas of artifacts failed to link that within the proposed ROW to that outside of it. Further testing at the Phase II level is recommended to determine the significance of the artifacts recovered from within the proposed ROW (STPs 14-33 to 35) and to verify the initial indication that the two terraces contain separate sites.

A third location in this woodlot which produced prehistoric material is at STA 400. A long finger-shaped peninsula crosses the path of the proposed ROW and rises five to seven feet above the surrounding poorly-drained areas. The ROW measures 250 feet in width here and STPs were placed at 40 foot intervals in a line perpendicular to the ROW. All of the units placed within the ROW were culturally sterile. However, one STP (14-81) placed 30 feet outside the ROW produced 11 very high quality quartzite and jasper flakes, some of which were large thinning flakes. Further Phase II testing is recommended to ensure that this artifact concentration lies entirely outside the proposed ROW and will not be affected by Relief Route construction or secondary activities. Further shovel pit and auger testing in the remaining 1900 feet of ROW and an interchange in this woodlot failed to produce any other loci of cultural material.

To sum up the finds in this parcel, Phase II excavations are recommended for a prehistoric surface scatter centered about STA 378, a subsurface prehistoric site at STA 387, and a second subsurface site at STA 400. A fourth location of subsurface prehistoric material is apparently very small and confined to the plowzone and no further work is recommended for this location.

#### PARCEL 16 - EDWIN LEWIS FIELD

Figure 22 shows the proposed ROW, the excavated test units, and the recorded cultural resources for this property. This parcel is owned by Mr. Edwin C. Lewis, who lives on the property, and is comprised of mixed wet woods and soybean and corn fields which are heavily ditched to promote drainage. A pedestrian survey of the fields was conducted and two loci of cultural activity were identified. A cluster of three prehistoric sites was found on a sandy rise south of STA 426. These three sites may actually be the same site, although surface visibility at the time of the survey prevented the identification of clear site limits. Artifacts recovered included a stemmed point, unifacial and bifacial tools, debitage, a grooved axe, and several pounds of fire-cracked rock and the three sites were labeled the "Lewis-C Complex." This site is recommended for Phase II excavations. A second site was found by pedestrian survey on a sandy rise inside the sharp northerly bend in Lewis Drive. This was labeled "Lewis-D" and produced brick fragments and 19th and 20th century ceramics. Both Byles (1859) and Beers (1868) show a structure inside the bend in the road under the name "H. Wilson" (Figures 8B and 9C), as is the large farmhouse to the east, now the



present residence of Mr. and Mrs. Lewis), but nothing appears on the 1906 USGS topographic map, or on Bausman (1940). Mr. Lewis stated that no structure has stood at that location since he bought the property in 1937.

Several other areas of the Lewis field were subjected to selected shovel-test pitting because they offered poor visibility or as in the case of the Lewis-D site, were suspected of having subsurface features. STPs 16-1 through 16-8 were placed on a 5-foot rise in a corn field and woodlot on the north side of Lewis Drive near the southeastern end of the proposed service road connecting Lewis Drive with Kent 331. All of these test holes were culturally sterile.

A second line of pits (16-9 through 16-22) was placed in the vicinity of the "Lewis-D" surface scatter and more of the same historic material was collected. No clear features were indicated by the subsurface testing but two concentrations of historic artifacts were noted. The first was on the rise itself and the second was several yards southeast, in the lower ground near STP 16-18. It is possible that the first concentration represents the site of the house depicted on the historic maps and the second is a refuse area, although further testing is recommended to verify this interpretation.

A third grid of STPs was placed on a sandy rise north of the Lewis-D site and east across a small drainage from the Lewis-C complex. The excavation of these 23 units (16-23 through 45) resulted in one additional focus of cultural activity, the Lewis-E site. Prehistoric artifacts were recovered in 16-25 (chert

flake), 16-27 (one FCR), 16-29 (one FCR), 16-32 (one FCR), and 16-43 (one black chert stemmed point basal fragment and a jasper flake). Historic artifacts, mostly redware, whiteware, coal, and brick fragments, were recovered from 18 of the 23 units and in densities suggesting something more than the usual field scatter. Although no historic maps or deed references indicate a structure was present on this lot, the quantity of historic artifacts suggests that the Phase II investigation should be designed to recover both prehistoric and historic resources.

#### PARCEL 17 - KENT CHRISTIAN CENTER/HUTCHINS WOODLOT AND FIELD

Figures 22 and 23 show the proposed ROW and the excavated test units for this property. This parcel includes the proposed Denney Road Connector from Lewis Drive to existing U.S. 13 and Denney Road and includes land owned partly by the Kent Christian Center and partly by Mr. and Mrs. Willis H. Hutchins, 1821 North DuPont Highway, Dover. The Hutchins bean field was subjected to pedestrian survey and a single artifact was recovered: a jasper stemmed point was found on the slope of a rise about 300 yards southeast of the house and was termed the Hutchins-A site. However, no other artifacts were found in the vicinity, so the biface appears to be simply a lost item. No further work is recommended for the Hutchins bean field.

The woodlot to the south of the bean field was subjected to a pedestrian survey and found to be very poorly drained with the exception of one location. A 3-foot sandy rise was found in the proposed ROW about 750 feet north of Lewis Drive and 18 STPs were excavated on this rise. Shovel test pit 17-2 produced a jasper

flake from an historically unplowed context. Although none of the other test units placed on the rise contained cultural material, some Phase II test excavations are recommended to determine the limits and intensity of the occupation.

#### PARCEL 18 - DANIELS KENT 331 FIELD

Figure 22 shows the proposed ROW, the subsurface test units, and the cultural resources recorded for this property. This parcel contains a corn field which lies on the south side of Dyke Branch. A low rise adjacent to the stream floodplain was subjected to a pedestrian survey even though surface visibility was less than 5 percent. A single 3-inch long quartz uniface was recovered in the proposed ROW and an STP grid of 19 holes was set out along the crest of the rise parallel to the stream bank. A chert flake was found within the ROW in 18-12 and chert and jasper flakes, a jasper uniface, and FCR were found just outside the ROW in 18-17 and 18-18. A 3-inch quartz uniface was also found on the surface in the vicinity of STP 18-10, within the ROW. An additional 7 STPs were placed in a grid around 18-17 and 18-18 and artifacts, including flakes, FCR, and a cobble core, were found in three of them. A Phase II archaeological investigation is recommended for this site.

In addition, historic atlases indicate a structure may have stood in the vicinity of the proposed ROW on the north side of Kent 331. It was labeled "G. Moore" on Byles' (Figure 8B) and "R. Taylor" on Beers' Atlases (Figure 9C). Nothing could be seen on the surface due to the poor ground visibility, and neither atlas permits exact placement of the structure or the appropriate

placement of an STP grid, but the presence of the site is noted for this parcel and Phase II archival research and archeological excavations are recommended.

#### **PARCEL 19 - MOORE/CORBI/COSDEN WOODLOT**

Figures 22 and 24 show the proposed ROW, the subsurface test units, and the cultural resources recorded for this property. This parcel comprises all of the ROW from Kent 330 to Kent 345 and is mostly woodlot. The small section of no-till corn field on the north side of Kent 330 was walked with negative results and the woodlot was subjected to selective shovel test pitting. A total of 78 STPs were placed in the woodlot in settings which had been found to be productive in previously tested woodlots (see Parcels 9, 13, 14, and 17). These were well-drained, 4 to 10 foot sandy rises which were encountered intermittently through the woodlot within the ROW. They were separated by poorly-drained sections which, when auger tested, were found to contain unproductive clayey soils. These areas were not subjected to STPs at the normal 40-foot intervals.

The preferred settings were tested with STPs along the centerline and two loci of prehistoric artifacts were recorded. A quartz flake was found in STP 19-17 (STA 470) and several quartz and cryptocrystalline flakes and a jasper uniface were found in STPs 19-66 and 19-68 (STA 487). Phase II testing is recommended for both of these locations within this woodlot.

The residence on the south side of Kent 345, east of the proposed ROW at STA 500, has been recorded by the State BAHP as K-955. It has been identified as the "Naudain-Senn" house by

Benenson (1987:175) and the oldest section of the house is thought to date from the mid-18th century (Benenson and Bower 1987:176). The proposed ROW will pass not closer than 400 feet to this structure and the immediate yard areas surrounding the house will not be affected. An open area west of the house is traversed by the proposed ROW. However, it is a regularly utilized horse pasture and therefore was not subjected to subsurface shovel test pitting.

#### PARCEL 26 - LAURETECO FIELD

Figure 24 shows the proposed ROW across this property. This tilled field is owned by Laureteco Enterprises of Wilmington and was subjected to pedestrian survey. Although ground surface visibility was 50% at the time of the survey, no cultural material was recovered and no further work is recommended for this parcel.

#### PARCEL 20 - ORTH/LLOYND WOODLOT AND FIELD

Figure 24 and 25 show the proposed ROW, the excavated test units, and the recorded cultural resources for this property. John E. and Thelma W. Orth own a section of woodlot and fallow field between STAs 510 and 535 which was subjected to shovel test pitting. Two streams and a bay/basin feature were found to lie within the proposed ROW and all three of these settings were extensively tested. A total of 64 STPs were placed within the ROW, most of them along the centerline. Soils were primarily gray clays and clayey silts and all units were culturally sterile.

The ROW also will take Mrs. Lloyd's Queensland Farm, a horse breeding operation abutting the Orth's property to the west. Although only a small section of the property will be taken for the ROW, the highway will necessitate the removal of the dwelling and barn and the complete relocation of the horse breeding operation well away from the ROW. The frame dwelling is vinyl-sided and appears to be late 19th or early 20th century. A structure appears in this general vicinity on Byles' Atlas (labeled "W. B. Farrow - Figure 8B), although the exact location is difficult to discern and thus the comparison is inconclusive. Nothing appears on Beers' Atlas, but a structure does appear in this location on the 1906 USGS topo map (Figure 11) and on Bausman's 1940 map of Kent County (Figure 13). Phase II archival documentation is recommended to determine a more specific age for this structure. Other than the Phase II work at Queensland Farm, no further investigations are recommended for the parcel.

#### PARCEL 27 - BOOKER/SHORT FIELDS

Figures 25 and 26 show the proposed ROW and the recorded cultural resources for this property. The fields from Delaware 42 (STA 535) to approximately STA 625 were surveyed as part of the 1985 Kent County U.S. 13 Relief Route Planning Survey (Custer, Bachman, and Grettler 1986) and were resurveyed as part of this report due to improved ground surface visibility. They are owned by Wilmington attorney Donald Booker and are rented to A. Gene Short of Dover, who plants no-till corn and soybeans. The 1985 and 1988 surveys found five sites now located within the proposed ROW and those will be briefly reviewed here.

Site 7K-C-208 (CRS no. 6038) is located at STA 550 and is situated on a sloping terrace five feet above and on the east side of an unnamed tributary to Alston Branch. One flake and one fire-cracked rock were found in a no-till bean field with less than one percent visibility. Site 7K-G-207 is located at STA 555 in a setting similar to 7K-C-208 and produced similar artifacts.

Site 7K-C-204 Complex (CRS no. K-6034) is located at STA 595 on the south side of the confluence of the Leipsic River and an unnamed tributary. The site covers four closely-spaced but separate loci of archaeological materials which are grouped together under the assumption that the separation is due to variation in ground surface visibility and not for cultural reasons. The largest portion of the complex is a crescent-shaped surface scatter which measures about 700 feet in length and is situated on a bluff about 15 feet above the floodplain. Although field surface visibility at the time of the pedestrian survey was less than 5 percent, 7 flakes and 60 fire-cracked rock were found. The number of fire-cracked rock suggests that a fairly intensive occupation might be present here. The other three parts of the complex are small scatters covering only a few square yards, and each produced a few flakes and fire-cracked rock.

Lying just east of the 7K-C-204 complex is site 7K-C-203, which was identified in 1985 and resurveyed as part of this report. It is situated on a high bluff overlooking the floodplain and the 1985 and 1988 surveys produced one broad-bladed stemmed rhyolite point which had been heavily resharpened, two flakes, and 9 fire-cracked rock. Because surface visibility was so poor

at the time of the pedestrian surveys, it is difficult to evaluate the level of intensity of prehistoric utilization for 7K-C-203 and the 7K-C-204 complex.

Located directly opposite, on the north side of the Leipsic River, site 7K-C-194A is situated on a gently sloping terrace at the confluence of the Leipsic and an ephemeral tributary (approximately STA 606). The field was in no-till corn with about 5% visibility at the time of the survey. Recovered materials included a side-notched jasper point, a shell-tempered potsherd, a quartz unifacial tool, 4 jasper cores, 26 flakes, and 3 fire-cracked rock. Most of the flakes were less than 1/4" in length, suggesting tool maintenance (edge resharpening) was a common activity at this site. The limits of the surface scatter cover approximately 200x400 feet (about two acres). However, the poor surface visibility prevents an accurate indication of the intensity of occupation.

A pedestrian survey was also conducted at the site of a demolished historic residence (K-238, constructed in 1774) on a prominent rise west of the proposed ROW at about STA 617. A concentrated scatter of brick, redware, and terra cotta pipe was found on the crest of the rise. This scatter lies about 400 feet west of the proposed ROW and will not be affected by the present proposed alignment.

Although little is known about any of the five prehistoric sites within the proposed ROW, either in terms of cultural periods represented, or of site function and intensity of use, all are located in favorable settings exhibiting minimal erosion.



The prospects are good for finding intact subsurface features and associated artifacts within the ROW and Phase II work is recommended for all five of them.

#### **PARCEL 28 - E. C. BOTSCH FIELD**

Figures 26 and 27 show the proposed ROW across this property. This field, running from STAs 625 to 645, is owned by E. C. Botsch and was in no-till corn at the time of the survey. A pedestrian survey was conducted and no prehistoric materials were found within the proposed ROW. One historic site was located on the south side of Kent 84 at about STA 640. A scatter of brick, whiteware, redware, clear pressed glass, and clear bottle glass was found just outside the eastern edge of the proposed ROW. The scatter measures about 50' by 100' and most likely is the remains of structure no. 472, identified by Custer et al. (1984, Appendix II) as part of a pre-1868 agricultural complex. The owner is listed as "J. Williams" on Beers' Atlas of 1868. A Phase II investigation is recommended for this site. The E. C. Botsch residence west of the proposed ROW is a modern ranch house which sits on the site of structure no. 471 identified by Custer et al. in the same report. According to Roger Botsch, son of the owner, the house was bulldozed and the site heavily graded several years ago.

#### **PARCEL 29 - ELLERY/R. BOTSCH FIELDS AND WOODLOT**

Figure 27 shows the proposed ROW and the cultural resources recorded for this property. Extending from STA 645 (Kent 84) to STA 665, these fields are owned by Mr. and Mrs. Lawrence Ellery (western half of the ROW), and by Mr. and Mrs. Roger Botsch

(eastern half of the ROW). The two properties are separated in part by Snow's Branch, a small tributary to the Leipsic River. The Ellerys rent their ground to nurseryman Joseph Wick of Brenford Road, who is currently using the property for a tree farm. The Botsches rent their property to A. Gene Short and it is currently lying fallow.

The section of Ellery's field included within the proposed ROW offered 90 percent visibility and was subjected to pedestrian survey. Four prehistoric sites were recorded. Botsch's fallow field was subjected to shovel test pitting at 40' intervals and one prehistoric site was recorded. Together, these five sites were designated the "Snow's Branch Complex." The five sites are described below.

The Ellery-B site is the first of three loci of prehistoric activity discovered on the west bank of Snow's Branch. It covers about three acres and produced one corner-notched chert point, a nondiagnostic quartz biface fragment, a battered quartz cobble, 2 jasper unifaces, 3 quartz flakes, and 25 fire-cracked rocks. The scatter was situated on a low rise and was bounded on the north and south by ephemeral tributaries to Snow's Branch. The Ellery-C locus consisted of just one argillite flake on a sandy rise north of Ellery-B. The Ellery-D site is located just north of C and in a setting similar to sites B and C. Surface collected from Ellery-D were two chert bifurcated base points (Archaic Period), a quartz bevel-edge scraper, a quartz bifacially modified cobble flake, 3 jasper flakes, 1 quartz flake, and 2 fire-cracked rocks. Ellery-E is located on another low sandy rise on the north side of a bend in Snow's Branch and yielded one

quartz corner-notched biface, a quartz ESBR, a chalcedony utilized flake, a quartz core, 7 flakes (quartz, quartzite, chert, and jasper), and 3 fire-cracked rocks.

The Roger Botsch field on the south side of Snow's Branch was lying fallow at the time of the survey and was subjected to 21 shovel test pits (STPs 29-1 to 29-21). These units were spaced at 40-foot intervals within the eastern edge of the proposed ROW and artifacts were recorded from numbers 29-5, 29-8, and 29-10. Three flakes and one utilized flake were recovered from these four units. The locus, termed the Botsch-A site, is located on a low terrace on the east side of Snow's Branch opposite the Ellery-D site.

In summary, the Snow's Branch Complex contains five loci of prehistoric activity, including one site which produced Archaic Period materials (Ellery-D), two which yielded Woodland I artifacts (Ellery-B and -E), and two locations with nondiagnostic flakes (Ellery-C and Botsch-A). Phase II investigations are recommended for this complex.

Also within this parcel, these two parties own a section of woodlot from STAs 665 to 670. The woodlot contains a cluster of small bay/basin features (50 to 75 feet across) separated by low 2 to 3 foot high sandy ridges. Shovel test pits 29-22 through 29-33 were placed on several of the sandy ridges with negative results.

#### PARCEL 30 - FAIRCLOTH WOODLOT

Figure 27 shows the route of the proposed ROW across this property. This woodlot is owned by Marvin H. Faircloth, Jr. of

Smyrna and extends from STAs 670 to 680. It is very low and wet and auger testing indicated the presence of poorly drained clay soils which are highly unlikely to yield cultural material. Therefore, no further work is recommended for this parcel.

**PARCEL 31 - WILLIS/MCGINNIS FIELD AND WOODLOT**

Figure 27 shows the route of the proposed ROW across this property. The ROW includes a section of poorly-drained woodlot and an adjacent poorly-drained fallow field. Willis Chevrolet of Smyrna owns the section from STA 680 to 688 and Frank McGinnis of Smyrna from 688 to 697. The woodlot was auger tested and found to contain only clay soils which are considered unlikely to yield cultural materials and no further work is recommended.

**PARCEL 32 - KENT CONSTRUCTION COMPANY FIELD**

Figure 28 shows the route of the proposed ROW across this property. This no-till field of soybean stubble extends from STA 697 to 709 and is owned by Kent Construction Company of Smyrna. It offered about 10% surface visibility and was walked with negative results. No further work is recommended for this parcel.

**PARCEL 33 - LAMBERTA FIELD**

Figure 28 shows the route of the proposed ROW across this field. This corn field is owned by Joseph Lamberta and rented to farmer Raymond Stacheki of Smyrna. It extends from STA 709 to STA 724 and was subjected to a pedestrian survey. Ground surface visibility at the time of the survey was about 10 percent, except for the northern edge of the property, near the ephemeral stream

bank, where visibility dropped to zero. Therefore, 7 STPs (nos. 33-1 to 33-7) were excavated within the ROW perpendicular to the centerline at 40-foot intervals. Results were negative for both the pedestrian survey and subsurface excavations and no further work is recommended for this parcel.

#### PARCEL 34 - MILLER FIELD

Figure 28 shows the proposed ROW on this property. This no-till field of soybean stubble is owned by Mrs. Helen Miller of DuPont Highway, Smyrna, and extends from STAs 724 to 737. The southern end of the proposed ROW within the Miller Field contains a prominent rise overlooking an ephemeral stream. This rise and the rest of the field within the ROW was subjected to pedestrian survey and no cultural material was recovered. No further work is recommended for this parcel.

#### PARCEL 35 - SHAROFF FIELD

Figure 28 shows the proposed ROW on this property. This field is owned by Mr. Henry Sharoff of New York, N. Y. and was in no-till soybean stubble at the time of the survey. Surface visibility was about 10% and the entire ROW was subjected to pedestrian survey. No cultural material was found and no further work is recommended for this parcel.

#### PARCEL 36 - PAPPAS FIELDS

Figures 28 and 29 show the proposed ROW and the excavated test units on this property. Mrs. Pauline H. Pappas of Smyrna owns a large no-till field of corn stubble between STAs 746 and 784. The pedestrian survey produced only one artifact: a

nondiagnostic quartz biface medial/distal fragment on a prominent sandy rise at about STA 755. Shovel test pits were placed in two lines along the crests of prominent ridges, the second one being the rim of a large bay/basin feature extending out of the ROW to the east. STPs 36-1 through 36-25 were placed along the crest of a long ridge of sandy soil surrounded by bay/basin features and broad, flat expanses of farmland. The quartz biface mentioned above was found near STP 36-22. All of these test units produced negative results. The second line of STPs (36-26 through 36-34) was placed on a rise protruding between two bay/basins. All of these units were sterile also.

Although the pedestrian survey of this parcel did produce a projectile point, the subsurface testing yielded no further artifacts, suggesting that the point was an isolated artifact. Thus, no further work is recommended for this parcel.

#### PARCEL 37 - PRATT FIELD

Figure 29 shows the proposed ROW across this field. The field is owned by Mrs. Esther Pratt of Glen Fern Farm, Kent 12, Smyrna, and extends from STA 784 to STA 797. A pedestrian survey of the field within the proposed ROW produced no cultural material and no further work is recommended.

#### PARCEL 38 - BELMONT HALL FIELD AND WOODLOT

Figure 29 shows the proposed ROW and excavated test units on this property. Extending from STAs 797 to 809, the ROW traverses a no-till field of bean stubble and then enters a woodlot on the south bank of Mill Creek, a major tributary to Duck Creek. The field and woodlot are owned by the State of Delaware and were

purchased in April, 1987 along with the associated 18th century mansion, Belmont Hall.

A pedestrian survey of the field produced negative results. The woodlot sits on a bluff top about 25 feet above the Mill Creek floodplain and a grid of 35 STPs were placed within that part of it traversed by the proposed ROW. Although the woodlot was historically unplowed, and otherwise seemed to be undisturbed, no prehistoric materials were recovered. Some late 19th and 20th century bottle dumps, probably from the Belmont Hall occupants, were seen in the leaf mat on the floor of the wood, but no 18th or early 19th century artifacts were recovered from the surface or within the test units. The soil here was recorded as Sassafras loam (Matthews and Lavoie 1970). However, the subsoil contained a very high clay content and the excavators concluded that the Soil Survey is in error. The clayey soil could be partly responsible for the fact that the location produced no prehistoric artifacts. No further work is recommended for this parcel.

#### PARCEL 39 - PHILIP HALL FIELD

Figure 30 shows the proposed ROW, the excavated test units, and the cultural resources recorded for this property. This is a no-till corn field located directly across Mill Creek from the Belmont Hall property and is owned by Philip Hall of Emerson, Delaware. The impact of the proposed highway on this property actually takes three forms. (1) The main trunk of the ROW will consist of a 250-foot wide cut through the eastern section of the property. (2) That section of the corn field extending east from

the proposed ROW to the property boundary and south from Woodland Beach Road (Delaware 6) to Mill Creek, which averages about 275 feet in width, will also be purchased by the Highway Department for borrow fill. (3) Lastly, Woodland Beach Road will be realigned to the south to straighten the bend at the intersection with Kent 76. A pedestrian survey of the proposed ROW produced cultural material in just one location. Prehistoric artifacts were found on a sandy terrace on the north bank of Mill Creek at about STA 811. Three flakes and four pieces of fire-cracked rock were found in an unvegetated patch about 10 feet by 30 feet at a point where a small, ephemeral stream joins Mill Creek. Surface visibility was about 40 percent. As a result of this find, lines of STPs were placed within and adjacent to the proposed ROW in several favorable locations at the stream confluence. A total of 43 STPs were excavated at 40 foot intervals and artifacts were found in three of them. Shovel test pits 39-8 (within the proposed ROW) and 39-26 and 39-27 (just east of the proposed ROW) each produced one chert or jasper flake in the plowzone. Shovel test pits 39-18 through 39-20 were placed in the vicinity of the surface finds alluded to above, but no cultural materials were found subsurface.

In sum, Parcel 39 produced one prehistoric sites which was found within the proposed ROW on the north bank of Mill Creek. Although the artifacts were not plentiful in the test units, and agriculturally-induced erosion could be a factor in these fields, further Phase II testing is recommended for this site.



#### PARCEL 40 - GREEN MEADOWS DEVELOPMENT

Figure 30 shows the proposed ROW across this property. The proposed ROW crosses Woodland Beach Road and enters the housing development between that road and the south bank of Duck Creek. The last 600 feet of the ROW on the south bank of the creek is owned by the State of Delaware (SOD) and has been heavily disturbed by borrow operations. All of the parcel has been heavily disturbed through housing construction or SOD borrow excavations and no further work is recommended for this survey.

#### PARCEL 41 - ROSS/JURGENS/DANIELS FIELDS

Figures 30 and 31 show the proposed ROW, subsurface test units, and the recorded cultural resources for this farm. On the north bank of Mill Creek, the proposed ROW is routed along the property line separating three large farms owned by Mrs. J. Homer Ross, Mrs. Roland Daniels, and Mr. and Mrs. Henry Jurgens, Sr. All of these properties were subjected to pedestrian survey in 1985 as part of the U.S. 13 Relief Route Planning Survey and numerous sites were found on each farm. Only those sites which eventually fell within the final proposed ROW will be discussed as part of this report (see Custer, Bachman, and Grettler 1986 for a complete description of the sites found on these three farms).

Site 7NC-J-134 was found in the southwest corner of the Ross Farm on the north bank of Duck Creek. At the time of the survey, the field was in no-till corn and ground surface visibility was very limited. Despite the handicap, 2 flakes and several fire-cracked rock were found scattered over an area measuring 75 by

250 feet. Although the artifacts were low in number, the setting and the soil type (Sassafras sandy loam) are favorable and the small recovered archaeological sample is probably due to the poor ground surface visibility and gives no indication of the intensity of occupation and function of the site.

Sites 7NC-J-135 and 7NC-J-136 were small flake scatters found in the southwest and northwest corners, respectively, of the Mrs. Roland Daniels farm. This field was in no-till soybean stubble at the time of the survey and ground surface visibility was very poor. Thus, little can be said of these sites at the conclusion of the Phase I survey. A Phase II investigation is recommended for all three of the sites within the proposed ROW on the Ross and Daniels farms.

#### PARCEL 42 - KNOTTS FIELDS AND WOODLOT

Figures 31 and 32 show the proposed ROW, the excavated test units, and the recorded cultural resources for this property. The proposed ROW crosses a large section of the farm of James C. and Cheryl A. Knotts on both sides of New Castle (N.C.) 30 (Paddock Road). This included soybean fields from STA 892 to STA 938 and woodlot from STA 938 to 940. The fields were walked and six loci of cultural material were recorded. Three small scatters of prehistoric material (Knotts-A through -C), each characterized by a flake or two and fire-cracked rock, were found on the east side of a channelized stream draining south to Duck Creek. All of these were situated on the north side of New Castle 30 between STA 913 and 923. Two additional finds (Knotts-D and Knotts-E) were located on the south side of N.C. 30 west

of the channelized stream. Knotts-D was a single contracting stemmed black chert biface found on a gentle slope at the head of an ephemeral stream to the unnamed, channelized stream. Knotts-E contained one quartzite flake tool and 3 fire-cracked rocks on a 10-foot high terrace about 300 feet west of the channelized stream (approx. STA 910). Knotts-F (approx. STA 911) is an historic scatter consisting of various forms of red earthenware and whiteware and could represent a scatter from a dump or the remains of a structure.

The small section of the Knotts woodlot crossed by the proposed ROW was tested with a transverse line of 9 STPs which were set on the north rim of a large bay/basin feature. The bay/basin was located adjacent to the wood in the bean field and nothing had been found around it during the pedestrian survey. The STPs along the edge of the woodlot also produced no cultural material.

In sum, the Knotts beanfield included several small prehistoric sites along a low order drainage for which Phase II research is recommended, although these appear to be rather small sites with very few artifacts. In addition, Phase II research is recommended for the historic scatter on the south side of New Castle 30.

#### **PARCEL 43 - MID-DEL AUTO PARTS WOODLOT**

Figure 32 shows the proposed ROW and the excavated test units on this parcel. Nearly all of this property is low, wet woods which was augered and found to contain unproductive clayey soils. This was true for both the main trunk of the proposed ROW

and the service road leading west to present U.S. 13 and Duck Creek Road. One small section, a sandy rise near STA 947, was located adjacent to the poorly-drained area and was tested with a line of five STPs. However, all test units were culturally sterile. The remainder of the proposed ROW through this parcel is heavily disturbed by the auto salvage yard and no further work is recommended for this property.

#### PARCEL 44 - SAVIN FIELDS

Figure 32 shows the proposed ROW and recorded cultural resources for this property. Four fields belonging to Lester Savin and his family lie north of Mid-Del Auto Parts and are the northernmost properties to be affected by this first segment of the proposed ROW. Three of the four were planted in rye grass in mid-December, 1987, and could be walked with about 50 to 75 percent surface visibility. The fourth was plowed, disked, and weathered in March of 1988 and was walked at that time with near 100 percent visibility.

The first field lies on the east side of present U.S. 13 and extended from STA 955 to STA 965. Two small sites were found on the north and south rims of a dry bay/basin feature at about STA 958. The Savin-A site, on the north rim, produced a square-stemmed quartzite point, a jasper unifacial flake tool and two fire-cracked rocks. Savin-B, on the south rim, yielded a single chert core. The second field lies north of the Savin farmhouse (N-6272) in a wedge formed by the intersection of Duck Creek Road (N.C. 486) and existing U.S. 13. The only finds were a random field scatter of late 19th and 20th century

artifacts associated with the farmhouse. The third field which was walked is located southwest of the intersection of N.C. 486 and N.C. 485 and it produced the third site on the Savin farm, the Savin-C site on a sandy rise between bay/basin features to the northwest and southeast and a channelized drainage to the southwest. The 1988 survey of the fourth field (between present Route 13 and Duck Creek Road, south of the Savin farmhouse) served to extend the site to the southeast around the rims of two adjacent dry bay/basins. Total artifacts recovered included one quartz stemmed point (Woodland I), two nondiagnostic biface fragments, two unifacial flake tools, six cores (quartz, quartzite, and chert), seven flakes, 15 fire-cracked rocks, and a flat, rectangular, finely abraded stone which is probably an historic whetstone. The artifact scatter measures about 400 feet by 800 feet (approximately 8 acres) and ground surface visibility at the time of the survey varied from 50 to 100 percent so it appears to be a fairly thin site.

In summary, the Savin property consists of four loci of cultural activity. Phase II research is recommended for the three prehistoric locations (Savin-A, -B, and -C). The Savin farmhouse and associated outbuildings (N-6272) will be destroyed by the Relief Route construction and a Phase II investigation including both archival and archaeological work is recommended for that complex.

#### **PARCEL 45 - WATSON FIELDS**

Figure 32 shows the proposed ROW and the excavated test units on this property. The service road leading westward from

STA 940 to Duck Creek Road crosses the soybean and rye fields of farmer Dee A. Watson, Jr. on the west side of U.S. 13. The rye field lies between 2 bay/basin features and was surface-collected with about 50 percent surface visibility. No artifacts were recorded. The eastern segment of this rise was obscured by no-till soybean stubble and offered no surface visibility. A grid of a dozen STPs (units 45-1 to 45-12) along the crest of the rise failed to produce any cultural material and no further work is recommended for the Watson parcel.