

BACKGROUND RESEARCH

In preparation for the 1987 Phase I survey of the Early Action Segment of the Relief Route, the prior archaeological planning studies (Custer, Jehle, Katka, and Eveleigh 1984; Custer and Bachman 1986b; Custer, Bachman, and Grettler 1986, 1987) were consulted to ascertain the presence of known archaeological cultural resources within the proposed ROW. Publications of recent surveys which included parts of the project area were consulted (Galasso 1983). Historic maps and atlases noted in the planning studies (Byles 1859, Figures 8A and 8B; Beers 1868, Figures 9A, 9B, and 9C; Baist 1893, Figure 10; USGS topographic survey 1906, Figure 11; Bausman 1941, Figure 12; and Bausman 1940, Figure 13) were also consulted for the locations of former standing structures which have now become archaeological sites. Current landowners and tenants were queried regarding any observations they may have made about cultural resources on their property. From these sources, several known prehistoric sites were plotted which lay directly within or in close proximity to the proposed ROW. In addition, the historic maps and oral informants suggested the possibility that historic archaeological resources may be present at several locations within the proposed ROW.

A significant site identified during the background research is the Carey Farm prehistoric site (7K-D-3), situated south of Dover on both sides of the Lebanon Road (Route 10) and on the east side of the St. Jones River. Listed on the National Register of Historic Places, it is the type site for the Carey

Farm Complex of the Woodland I Period (Custer 1984a). Although that part of the site lying on the south side of Lebanon Road has been impinged by a housing project, the majority of the site on the north side of the road appears to still be intact. The section of the site north of Lebanon Road has been under cultivation for many years and has been surface collected by many avocational archaeologists. Controlled subsurface excavations were conducted on both sides of Lebanon Road in the 1970s by the Delaware Section for Archaeology (Delaware Division of Historical and Cultural Affairs 1977). North of the road, a house pit feature containing a hearth was excavated and the site

has produced Mockley ceramics and Fox Creek projectile points, as well as an extensive array of faunal remains. A radiocarbon date of A.D. 200 was obtained from the hearth. Custer (1984a:131) has identified the site as a macroband base camp from which occasional forays were made to preferred locations for the procurement of wild flora and fauna. Since the existence of the site was adequately documented, only a cursory Phase I pedestrian survey was conducted as part of the work reported here. However,

still unknown are the subsurface and surface areal limits, the intensity of occupation, and temporal duration at the site. Their definition will be a chief goal of future work conducted there.

ROUTE 13 RIVER CROSSINGS

The proposed Route 13 alignment crosses four major waterways in the Smyrna to Dover segment. From south to north, the proposed alignment crosses or comes near to the St. Jones, Little, Leipsic, and Smyrna rivers (Figure 2). River transportation was an important factor in the historic settlement of the study area and the potential for significant

archaeological remains along each of these waterways exists. A preliminary survey of archival records was undertaken to identify potential underwater or floodplain archaeological remains such as wharves, landings, storehouses, and sunken vessels within the proposed alignment.

No potential archaeological resources were identified at any of the four proposed river crossing sites by preliminary archival research. Deed research indicates that all of the river crossing sites were part of properties first purchased or granted in the late seventeenth century and were settled by the second quarter of the eighteenth century. No public or private landings

or wharves are indicated in the deed records, although it is possible that such structures could have existed without being recorded. Historic maps including Eastburn (1737, Figure 14), Byles (1859), Beers (1868), 1906 U.S.G.S. topographic map, and Bausman (1940, 1941) indicate no structures at any of the river crossings although it is possible that offices, storehouses, or other non-domestic structures may have existed but were not consistently recorded.

A survey of contemporary newspapers, specifically the *Pennsylvania Gazette*, *Smyrna Times*, *American Watchman & Delaware Republican*, and *Delaware State Journal* also indicate no shipwrecks or lost/salvaged cargoes in the area of the proposed river crossings. Secondary histories of the area, traditionally a good source of rumored or suspected shipwrecks, also failed to indicate any potential resources (Duncan 1806, Scharf 1888; Conrad 1908; Caley 1968; Hancock 1976; Hoffecker 1973, 1977; Munroe 1978, 1984). Often only shipwrecks of larger vessels were recorded (Berman 1972) and it is possible that sinking of smaller vessels, particularly those from earlier periods, may not have been recorded.

Archival research indicates that the Corps of Engineers dredged all four of the major drainages to be crossed by the proposed alignment (*Annual Reports of the U.S. Army Corp of Engineers 1887-1920*). From 1878-1911, \$121,965 was spent by the U.S. Army Corp of Engineers for dredging the Smyrna River channel from east of Smyrna Landing (including the proposed crossing site) to the Delaware Bay. Between 1884 and 1911, a total of \$108,850 was spent on dredging the St. Jones River channel from

the mouth to an unspecified point near Dover. At dredging costs ranging from \$0.15 to \$0.25 per cubic yard, a minimum of 923,000 cubic yards of dredged material were removed from the stream channels of the Smyrna and St. Jones Rivers and deposited along the banks of both streams.

The Leipsic and Little Rivers, due to their smaller size and lesser economic importance, were not dredged as intensively. From 1911 to 1920, the Corps of Engineers spent \$48,000 for dredging the Leipsic River from Garrison's Mill to the Delaware Bay. This segment includes the proposed alignment crossing site. The Corps of Engineers began dredging the Little River in 1920 when \$18,000 was expended to dredge the river from the town of Little Creek to the Delaware Bay. Although this segment is substantially east of the proposed ROW, the proposed crossing site was dredged according to informants and archaeological testing as late as the early 1970s.

It is unknown to what degree dredging activities have disturbed potential archaeological remains at the proposed river crossing sites. Along the St. Jones and Smyrna Rivers, the Corps of Engineers contracted for dredging of a shipping channel at the proposed river crossing sites with a width of 40 to 50 feet (measured at the bottom of the river) and a depth of 6-7 feet below mean low water. The Leipsic River at the proposed river crossing site was dredged to a width of 40 feet and a depth of 5 feet below mean low water. The presence of river sediments greater than these depths or of cut-off and preserved meanders in the project areas may have preserved deeply buried 17th, 18th, or even 19th century remains.

The results of this preliminary survey of documentary resources should not be taken as conclusive evidence that no underwater or streamside archaeological remains exist at the proposed river crossings. The potential for seventeenth and eighteenth century resources exists for all of the four major rivers within the present alignment. The potential for seventeenth century remains is particularly high for the St. Jones and Smyrna Rivers as river-oriented settlement patterns along both of these waterways for this period have been identified (Wise 1979, 1980). The potential for eighteenth century remains is also high, as Benjamin Eastburns' 1737 map of Delaware (Figure 14) indicates that the Dover (St. Jones) River and the Little River, Little Duck Creek (Leipsic), and Duck (Smyrna) Creek were navigable as far inland as the proposed alignment. Deed records for the Smyrna River crossing site describe an "old Landing" in 1755 that was approximately 3/4 of a mile inland of the proposed river crossing site. Thus, with water transportation at least as far inland as the proposed crossing site on the Smyrna River and the other three major rivers, there is a potential for undocumented submerged resources within all of the project areas.

The potential for nineteenth century remains is also high. The Smyrna, Leipsic and St. Jones Rivers were intensively utilized throughout the 19th and into the early 20th centuries as far inland as the proposed ROW river crossing locations. The extent of the disturbance caused by channelization and dredging in this period is unknown and intact archaeological remains of vessels, wharves, storehouses, or other resources may exist.