

I. INTRODUCTION

The Cultural Resource Group of Louis Berger & Associates, Inc. (Berger), has conducted an archaeological excavation of the Whitby Branch Site (Site 7NC-G-151), located near the town of Odessa in New Castle County, Delaware. This program was sponsored by the Delaware Department of Transportation (DelDOT) prior to the construction of State Route (SR) 1, also known as the U.S. Route 13-Relief Route. The study has been carried out in accordance with the instructions and intents of Section 101(b)(4) of the National Environmental Policy Act; Section 1(3) and 2(b) of Executive Order 11593; Section 106 of the National Historic Preservation Act; 36 CFR 771, as amended; the guidelines developed by the Advisory Council on Historic Preservation, published November 26, 1980; and the amended Procedures for the Protection of Historic and Cultural Properties, as set forth in 36 CFR 800. As a recipient of funding from the Federal Highway Administration, DelDOT undertook this investigation to comply with federal cultural resource management policies that require consideration of the effects of construction on significant historic or prehistoric resources.

DelDOT's commitment to identify and appropriately treat important archaeological and historic sites along the SR 1 corridor has been formalized in a Memorandum of Agreement (MOA) with the Delaware State Historic Preservation Officer, the Federal Highway Administration, and the Advisory Council on Historic Preservation. Stipulations in the MOA require DelDOT to identify and evaluate archaeological resources within the U.S. Route 13-Relief Route corridor; and for significant archaeological sites that would receive an adverse effect from construction of the relief route, DelDOT would develop a data recovery plan, in consultation with the Delaware State Historic Preservation Office. Other stipulations in the MOA pertain to professional qualifications and ensure adequate public participation and reporting.

The construction of SR 1 has created a limited-access highway linking Interstate 95 in the north with Delaware's Atlantic Coast resorts in the south. South of Odessa, the highway alignment crosses U.S. Route 13 from west to east, and several stormwater management ponds have been placed to the west of U.S. Route 13 between the Appoquinimink River and Noxontown Road, in Fieldsboro.

The site overlooks a small tributary of the Appoquinimink River, Whitby Branch, for which the site was named (Figure 1). The official designation for the site, 7NC-G-151, indicates that it is located in Delaware (the seventh state, alphabetically) and in New Castle County (abbreviated "NC"). The Whitby Branch Site was initially identified during a Phase I archaeological survey of the SR 1 corridor between St. Georges and Pine Tree Corners (Bedell et al. 1996). The site was identified on a narrow upland ridge which extends westward from U.S. Route 13 to shoreline along tidal wetland, and was the proposed location for stormwater management pond O-2. Following completion of Phase II testing in November 1995, the site was determined eligible for the National Register of Historic Places (Bedell et al. 1996). Because the site was to be destroyed by the planned

SR 1 construction, DelDOT sponsored a program for archaeological data recovery, so that important information would be recovered and preserved.

This report is organized into eight chapters and five appendices. Chapter II outlines the prehistoric context and includes a summary of the previous work at the Whitby Branch Site and an overview of regional prehistory. Chapter III, which describes the site's environmental setting, presents the results of geomorphological and soils study of the site. The project research design, in Chapter IV, includes a discussion of the principal research issues and their relationship to the Delaware State Plan for Management of Archaeological Resources. Chapters V, VI, and VII describe the results of the excavations at the site, including a discussion of site formation processes and cultural components (Chapter V), a discussion of the features (Chapter VI), and the artifact analyses (Chapter VII). The concluding chapter, Chapter VIII, summarizes the results of the study according to the principal research topics and relates the findings to regional prehistory and issues identified in the State Plan for Management of Archaeological Resources.

Appendix A contains the geomorphological site evaluation, and Appendix B the geomorphological evaluation of Feature 19. Appendix C contains the floral analysis, Appendix D the public information handout, and Appendix E the artifact inventory.

Fieldwork for the data recovery program was undertaken over a 10-week period from April 15 to June 24, 1996. Field operations were carried out by a team of eight to 12, plus a crew chief and a field supervisor (Plate 1). The sampling plan proposed for data recovery consisted of a three-step strategy to: (1) excavate block areas centered on artifact concentrations encountered during the Phase II fieldwork, (2) test site margins to provide a better definition of site boundaries, and (3) expand the block excavations as features and deposits were identified. Altogether the Phase II and Phase III investigations included the excavation of 142 1x1-meter excavation units, which is equivalent to 14.5 percent of the estimated site area within the project limits.

The research findings from this study focused on issues of prehistoric chronology, subsistence, settlement patterns, intrasite patterning, environmental adaptation, and technology. The site-specific chronology indicated that the principal episode of site use occurred during the Woodland I period, with more limited occupation during the Woodland II period. Initial site use occurred during the Clyde Farm complex, which is dated to roughly 3000-500 BC, followed by a more intensive occupation during the Black Rock I complex, which dates to about 500-1 BC. A third period of site use occurred during the Webb complex, roughly between AD 500 and 1000, and was followed by a Woodland II occupation, between AD 1000 and 1650.

The site is located on a low ridge overlooking a small stream to the south (Whitby Branch) and extensive tidal wetlands to the west. The site appears to have been used for the procurement of lithic raw material found in the form of glacial outwash cobbles, and for the exploitation of seasonally available wetland plants and animals. No faunal remains were recovered at the site, and the results of floral analysis indicate that few botanical remains were present, although small amounts of charred nutshell from walnut and hickory were identified. A number of cultural features were encountered, including fire hearths, a food storage pit, and a possible semi-subterranean pit house.

Clusters of tools and debitage indicate the presence of discrete activity areas associated with a variety of subsistence tasks, such as tool manufacture, maintenance, and discard. Food-processing activities are inferred from the presence of the hearth features.

The site's prehistoric assemblage includes more than 15,000 artifacts, largely composed of flaked-stone tools and debris from their manufacture. A very small sample of container vessels was recovered, and includes steatite and ceramic bowl fragments. The archaeological collections from the site are currently in storage at Berger's archaeology laboratory in East Orange, New Jersey. The field records, original photographs, and other material relating to the site have also been prepared for storage with the collection. The artifact collections and associated materials have been prepared for permanent storage according to the standards of the Delaware State Museum.