Chapter 2

METHODS

An overall summary of the investigations is presented in Table 2.1. This provides locational, archaeological sensitivity, size and proposed and actual testing data.

A. ASSESSMENT OF GROUND CONDITIONS

Shortly after receipt of the Notice To Proceed the Principal Investigator (Liebeknecht) and Senior Archaeologist (Ferenbach) inspected the project APE to assess current ground cover conditions. Because of the time of year, some premature harvesting and plowing under of crops had to be negotiated between landowners/tenants and the Delaware Department of Transportation. Despite these complications, it proved possible to develop a continuous flow of work for the field team with no access delays.

B. CONTACT WITH OWNERS AND TENANTS

Concurrently with ground condition assessment, contact was made with owners and tenants (primarily the latter, particular those leasing land for farming). As far as possible this was done on a face-to-face basis after phone contact. Several of the tenants were the same as those on Section 2, also surveyed by Hunter Research, Inc., and this facilitated the process. All areas were accessed.

C. SURFACE COLLECTION

After plowing and disking and a least one episode of rain, the field team made at least 2 passes over each area with each member at arms' length from the next, one pass at 90 degrees to the other. Observed artifacts were marked with pin-flags for subsequent GPS survey.

D. METAL DETECTING

Several days of metal-detecting were undertaken. The policy was to detect only on known or suspected 18th-century sites, because it was considered that later sites would contain too much uninformative material, particularly ferric items. The hope was to identify meaningful patterning in the 18th-century data. The detector was set to locate all metals, which were then flagged and mapped in the same way as surface collected artifacts.

E. SHOVEL TESTING

Fallow agricultural fields and grassy lawns were shovel tested on a 50-foot grid across the APE. If concentrations of significant artifacts were recovered, the grid was tightened to intervals of 25 feet and one to three judgmental excavation units were excavated down to subsoil. The location of all shovel tests and excavation units were recorded with a handheld GPS unit. A total of 308 shovel tests were completed, 40 in Section 2, Area 17, and the remainder in Section 1.

F. EXCAVATION UNITS

A total of 24 excavation units were completed, all in Section 1. These were placed where shovel testing and/or surface collection were either felt to provide insufficient information, or where structural or other cultural features were suspected or encountered. These were excavated according to natural or cultural horizons and recorded on standard Hunter Research context sheets. Profiles were drawn of all units, selective plans completed, and photographic records made.

G. MAPPING WITH GPS

Virtually all the mapping and artifact location was completed using Topcon GMS-2 data collectors with built-in GPS antennas. These continued to be excellent tools. The volume of material necessitated the rental of a second unit in order to maintain the field schedule. No data was lost at any point, and downloading and plotting procedures were developed and refined successfully.

Artifacts were generally collected and assigned individual point provenience numbers within each area, except where artifact scatters we considered to represent recent activity and/or recently imported soils.

The following information was recorded for each individual surface find: locational coordinates, project area, and artifact code. If the artifact was prehistoric, it was first labeled PRE; if historic, it was first labeled HIST. If the artifact was prehistoric, it was sub-labeled as ceramic (CER), flake (FL), tested cobble (TC), core (CO), piece of limonite (LI), projectile point (PT), biface (BIF), tool (TL), ground-stone tool (GST), hammerstone (HS), thermally fractured rock (TFR), or special find (SF), such as an atlatl weight, gorget, ulu, or shaft smoother. If the artifact was historic, it was sub-labeled as ceramic (CER), pipe fragment (PIPE), brick (BR), nail (NL), glass (GL), iron (IR), brass (BR), lead (LD), gunflint (GF), building material (BM), bone (BN), shell (SH), or special find (SF) such as a coin, button, window lead, or utensil. If the artifact was a historic ceramic, it was further labeled as redware (RW), stoneware (SW), porcelain (PO), creamware (CW), pearlware (PW), ironstone granite (ISG), yellowware (YW), whiteware (WW), tin enamel (TE), or buff-bodied Staffordshire ware (BST). If a brick was glazed, it was further labeled GL. If the artifact was a nail, it was further labeled wrought (WT), cut (CT), or wire (WIR), if discernible in the field. If the artifact was glass, it was further labeled flat (FL), curved (CV), or bead (BD). If the artifact was a shell, it was further labeled oyster (OY) or clam (CL).

One GPS point was taken per shovel test, usually beginning with the extreme southeastern shovel test and ending with the extreme northwestern shovel test. After experience on Section 2 had demonstrated the limitations of GPS accuracy (between 1 and 3 feet), central points were also taken on each excavation unit.

H. FIELD NOTEBOOKS

The Principal Investigator and Senior Archaeologist made daily entries in site notebooks. These documented work completed, particular items or features of importance, contacts with owners, tenants and the public, and other relevant project information. Copies of these will be included with the full report.

I. PHOTOGRAPHY

Digital photographs were taken on a regular basis to document the work and entered into the standard Hunter Research photographic archive system that records date, location, direction of view, specific features and the

TABLE 2.1. U.S. ROUTE 301, SECTION 1. NEW AREAS: PROPOSED PHASE IB INVESTIGATION AREAS DATA

Investigation Area	Map	Adjacent Station		A&HC Segment #	Property ID Number	Parcel number	Name	Sensitivity Prediction by ADM/ A&HC		Testing Method	Approx Area Sq. Ft.	Approx Area Acres	Approx Area Ha.	Proposed Shovel Tests	Actual shovel Tests	Excavation Units completed
		from	to					Prehistoric	Historic							
1	6	720	725	n/a	n/a	239	ROBERTS MITIGATION SITE	n/a	n/a	n/a	0	0.00	0.00	**0**		
2	6	705	715	12	1300800009	235	VILLAGE OF SCOTT RUN EAST	moderate-low	low	Plow, Disk and Surface Collection	648,960	15.00	6.08	**27**	42	1
3	5	680	690	12	1300800009	235	VILLAGE OF SCOTT RUN WEST	moderate-low	low	Plow, Disk and Surface Collection	346,112	8.00	3.24	**15**	10	0
4	5	670	675	11	1300820025	234	HYETTS CORNER LLC	moderate-low	low	Plow, Disk and Surface Collection	389,376	9.00	3.65	**16**	46	2
5	4	510	515	n/a	n/a	219	CHURCHTOWN MANOR NORTH	moderate-low	low	n/a	0	0.00	0.00	**0**		
6	4	500	515	3	1301300006	219	CHURCHTOWN MANOR SOUTH	moderate-low	low	Plow, Disk and Surface Collection	475,904	11.00	4.46	**20**	33	4
7	4	485	495	2	1301200039	216	PLEASANTON EAST	moderate-low	low	Plow, Disk and Surface Collection	346,112	8.00	3.24	**14**	39	4
8	3	470	480	1	1301200121	208	PLEASANTON MITIGATION SITE	low	low	Plow, Disk and Surface Collection	432,640	10.00	4.05	**18**	27	4
9	3	460	465	1	1301200121	208	PLEASANTON STOCKPILE	moderate-low	high (nw corner)-low	Plow, Disk and Surface Collection	432,640	10.00	4.05	**18**	6	2
10	3	465	475	1	1301200121	208	PLEASANTON SOUTHEAST	moderate-low	low	Plow, Disk and Surface Collection	519,168	12.00	4.86	**22**	10	1
11	3	455	460	1	1301200121	208	PLEASANTON SOUTH	moderate-low	low	Plow, Disk and Surface Collection	346,112	8.00	3.24	**15**	21	3
AHC1	3	455	460	1	1301200121	208	A&HC Segment 1	low	low (A&HC =low)	Plow, Disk and Surface Collection	173056	4.00	1.62	**8**	4	1
AHC5	3-4	473	492	5	1301200039	216	A&HC Segment 5	low-nil	low (A&HC = moderate)	Plow, Disk and Surface Collection	648960	15.00	6.08	**27**	30	2
										TOTAL AREA TO BE SURVEYED	4,784,040	111	45			
										TOTAL SHOVEL TESTS	**200**			**200**	**268**	
										TOTAL UNITS	**10**					**24**
										METAL DETECTING	25,000	0.6	0.2			
							= Borrow Areas excluded from testing			Note: measurements are approximate, based on calculations of areas, with rounding.						

name of the photographer. A sequential series of film numbers (since the advent of digital photography, typically organized by time period) is stored under the internal project number (in this case 10009).

J. ADVERSE WEATHER CONDITIONS

Fieldwork was occasionally delayed or hampered by rain, during which time artifact processing took place in Townsend, Delaware. Conditions became increasingly arid and hot towards the end of the fieldwork, with some reduction in artifact visibility. Standard precautions were taken to avoid heat stress among the field team.

K. INFORMANT INTERVIEWS AND INTERACTION WITH THE PUBLIC

Because of the smaller number of properties on this section, and its slightly more remote character, there was more limited contact with the public here compared to our previous experience on Section 2.

L. LAB PROCEDURES

The field laboratory established in the Ferenbach pole barn at Townsend, Delaware was used. Artifacts were washed, dried and then re-bagged and re-tagged in preparation for cataloging. An adequate number of drying trays permitted full visual examination of all materials by the Principal Investigator. Artifacts were then fully cataloged and the data is presented in Appendix B.