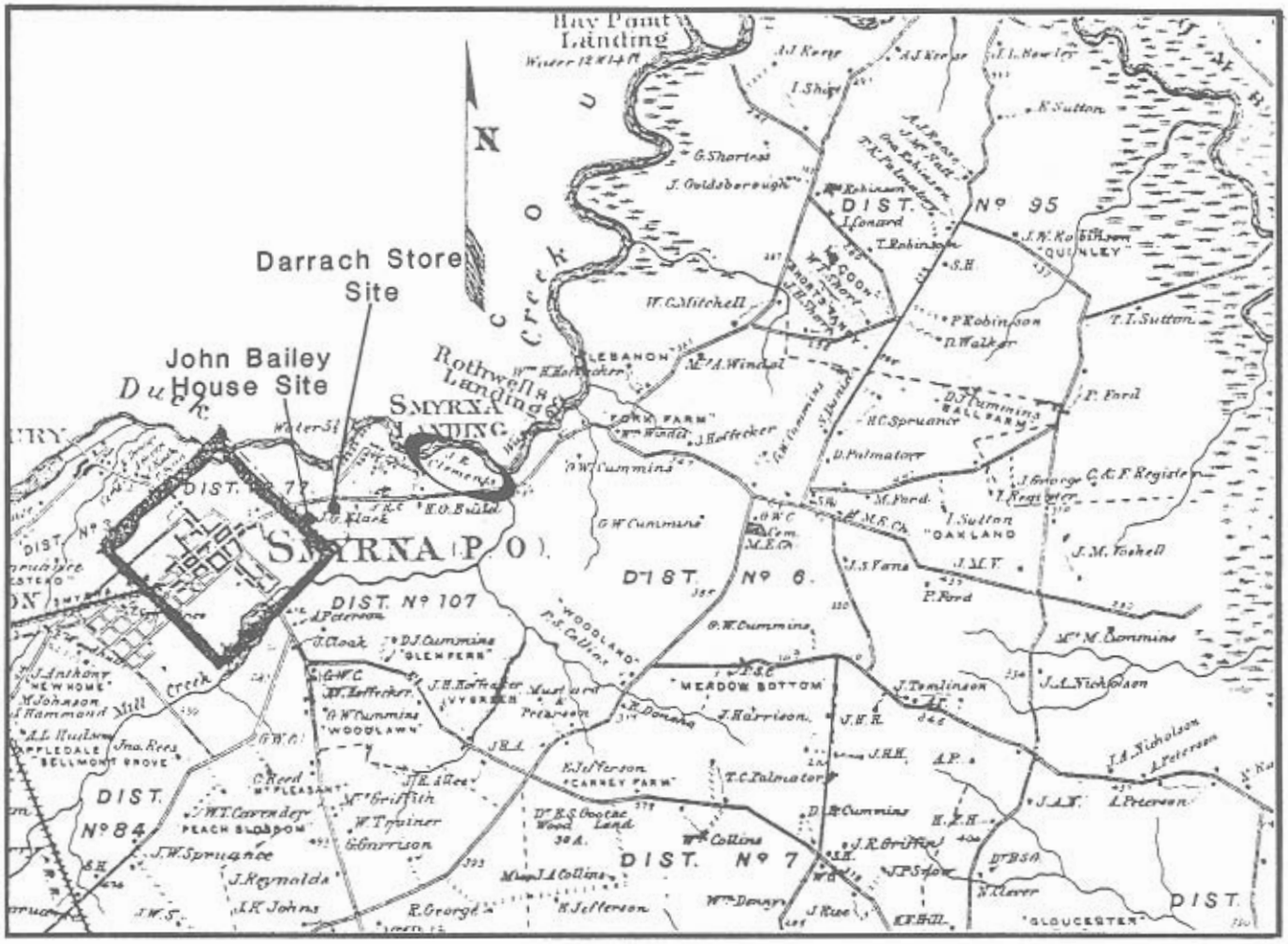
FIGURE 7

Detail of Duck Creek Hundred, from D.G. Beers' "Atlas of the State of Delaware" (1868)



RESULTS OF PHASE I AND II TESTING: JOHN DARRACH STORE SITE

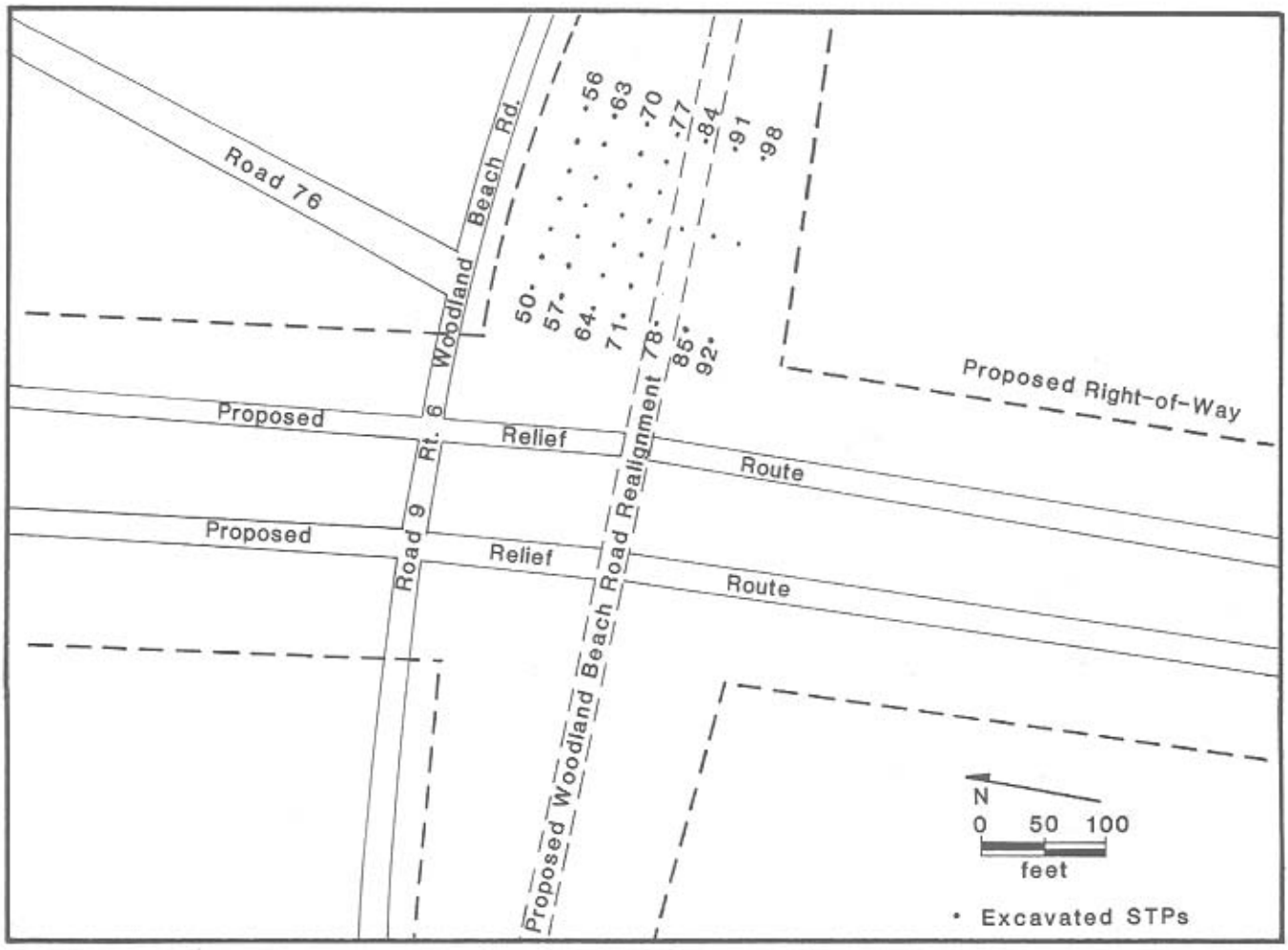
PHASE I

A road petition dated 1781 leading to Smyrna Landing is the first documentary evidence for a structure at the John Darrach Store site (Kent County Road Petitions and Returns 1781) (Figure 3). "Jno. Whites Store, now John Darrachs" was located at the intersection of the present Delaware 6 and Kent 76, the Smyrna Landing Road. A later document revealed more about the buildings along Delaware 6. An 1811 Kent County Orphan's Court plat of the division of Jane Darrach's estate (KCOC G-1-87) shows that John Darrach's store is now an "Old Brick House and Granary" in the possession of Eleanor Kennedy.

The Phase I pedestrian survey of the Darrach Store site yielded large quantities of bricks and brick fragments scattered over an area of about 30' x 50', and based upon this configuration, a shovel test pit grid was laid out to locate the extent of the site, sample the site's stratigraphy, and recover diagnostic artifacts. A total of 37 shovel

FIGURE 8

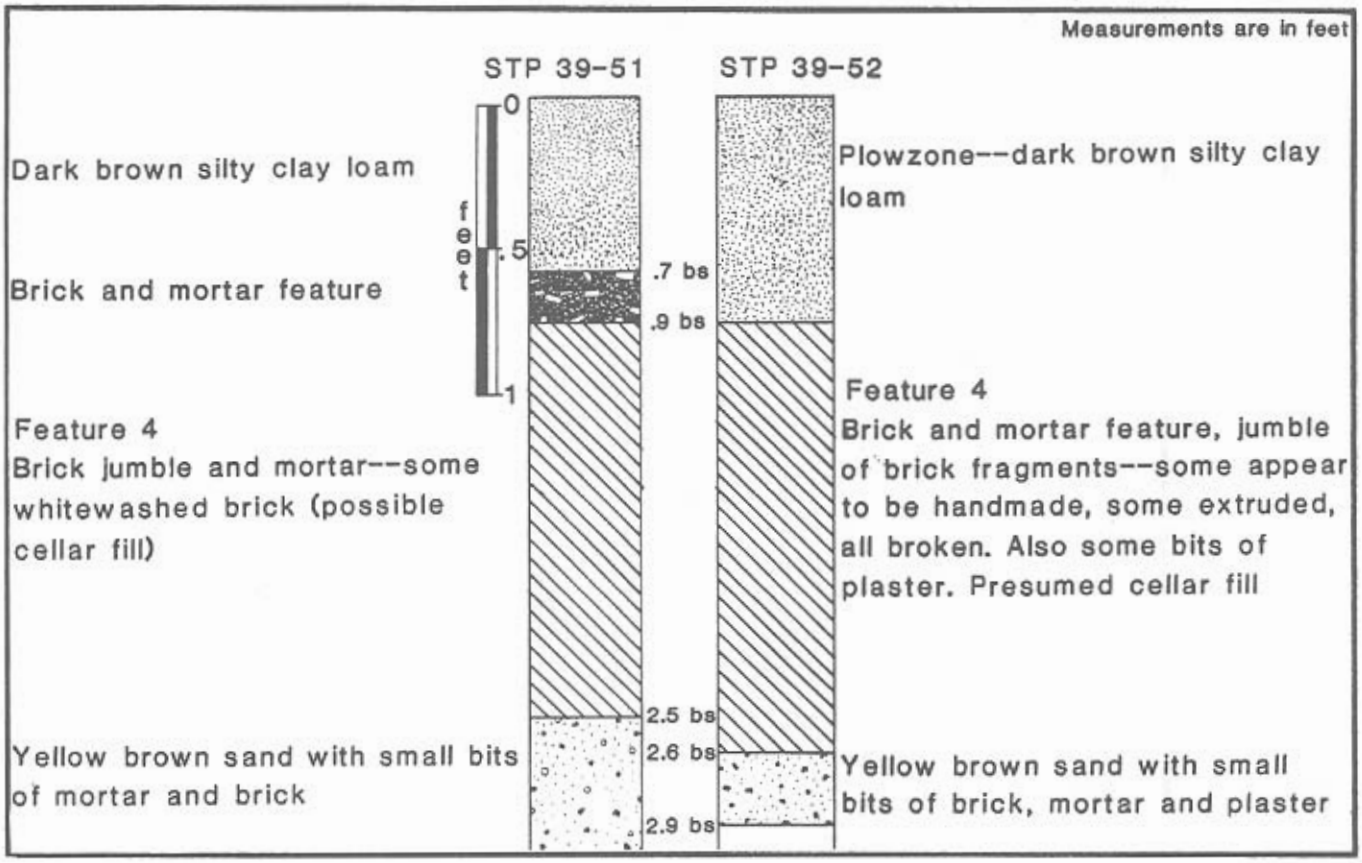
Map of the Phase I Shovel Testing



test pits were laid out at 25 foot intervals (nos. 39-50 through 39-78, 39-81, 39-84, 39-85, 39-88, 39-91, 39-92, 39-95, and 39-98 - See Figure 8). Artifacts were found in nearly all test pits and were abundant in the four rows closest to present Delaware 6 (Shovel Test Pits 39-50 through 39-77). In addition, a brick-filled feature (Feature 4) was apparently encountered in both Shovel Test Pits 51 and 52 (Figure 9). The units contained identical stratigraphies of brick, rubble, charcoal, and artifacts to a depth of 2.6 feet below the surface. Below this stratum were yellow-brown clayey sands which contained small bits of brick and charcoal. These two units were evidently placed within the limits of the cellar hole of the Darrach Store structure. Other shovel test pits excavated in this area, 39-50, 39-51, and 39-53, did not identify any subsurface disturbance beneath the plow zone. Historic artifacts, including white salt-glazed stoneware, creamware, pearlware, whiteware, clear and olive green bottle glass, wrought and cut nails, and other metal fragments, and innumerable brick fragments were recovered from the plow zones of 24 of the shovel test pits (Appendix I). The spacing of the units indicated the cellar hole was at least 25 feet wide and the high brick counts tended to support the previous reference from the 1811 Jane Darrach estate plat that the Eleanor Kennedy house (Darrach store) was a brick structure. In sum, the Phase I excavations at the Darrach Store site demonstrated that eighteenth and early nineteenth century domestic and architectural artifacts

FIGURE 9

Soil Profile of Phase I STPs 39-51 and 39-52 within Feet 4



were plentiful across the site and that a large feature, the dug basement for the house, was still partially intact, although filled in with rubble. A Phase II investigation was recommended for the site.

PHASE II

Based on the results of the Phase I testing, Phase II excavations were conducted at the site to determine the site dimensions, locate any additional intact subsurface features or architectural remains, and to determine the site's eligibility for inclusion on the National Register of Historic Places. These excavations consisted of 86 shovel test pits laid out utilizing the existing Phase I grid, and 3' x 3' and 5' x 5' measured test units (Figure 10). For clarification, all Phase II shovel test pits at the Darrach Store site contain the prefix "42-". Shovel test pitting was conducted to determine the limits of the site, based on the presence or absence of historic artifacts. No additional shovel test pits were excavated within the limits of the cellar hole. Shovel test pits were excavated at 12.5' intervals in the areas immediately adjacent to the cellar hole in order to identify any features associated with the Darrach Store structure, and at 25' intervals across the remainder of the site. Table 2 describes the features identified during the field investigations.

FIGURE 10

Phase I and II Test Excavations

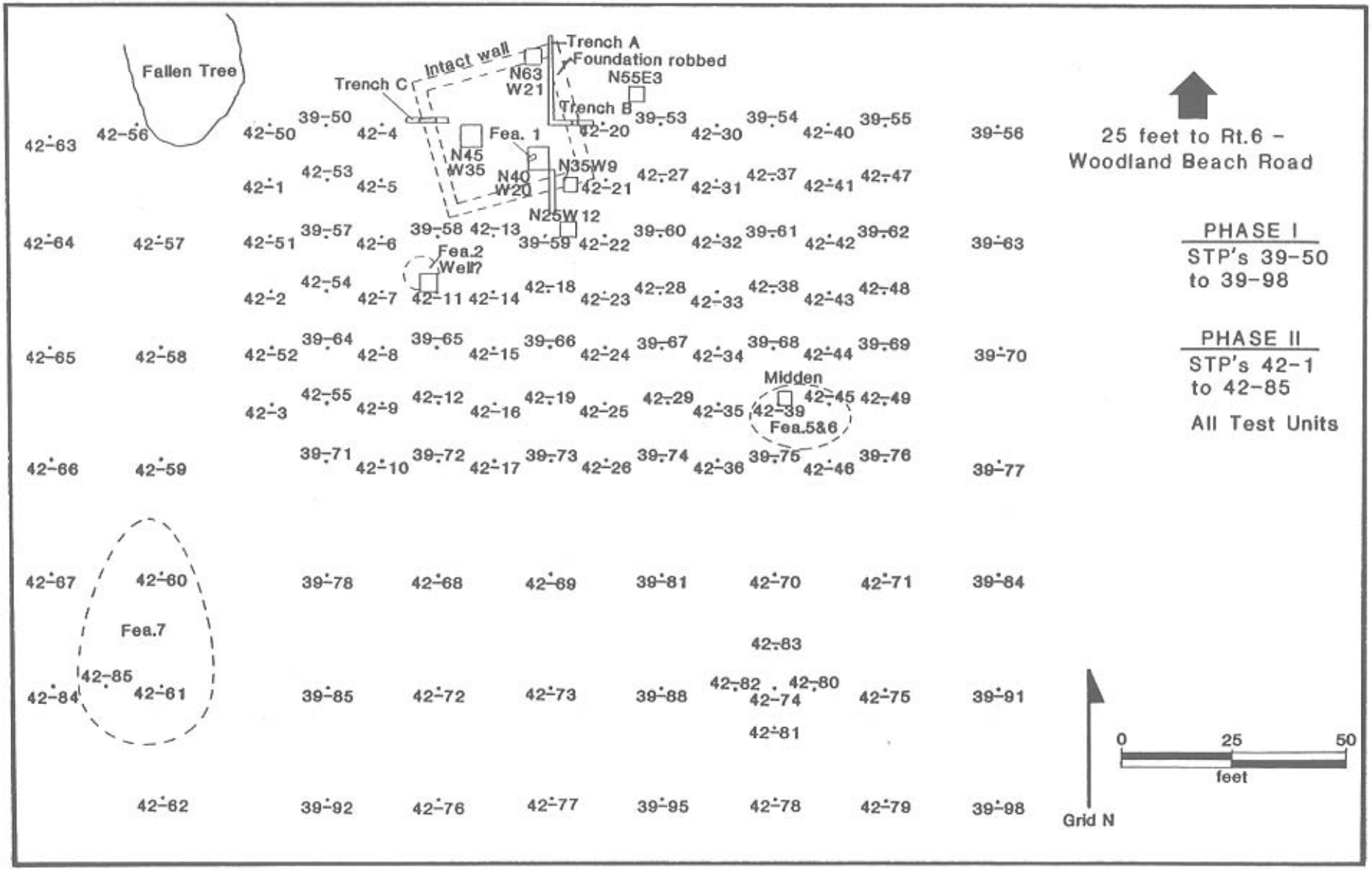


TABLE 2

LIST OF FEATURES IDENTIFIED DURING PHASE I AND II TESTING

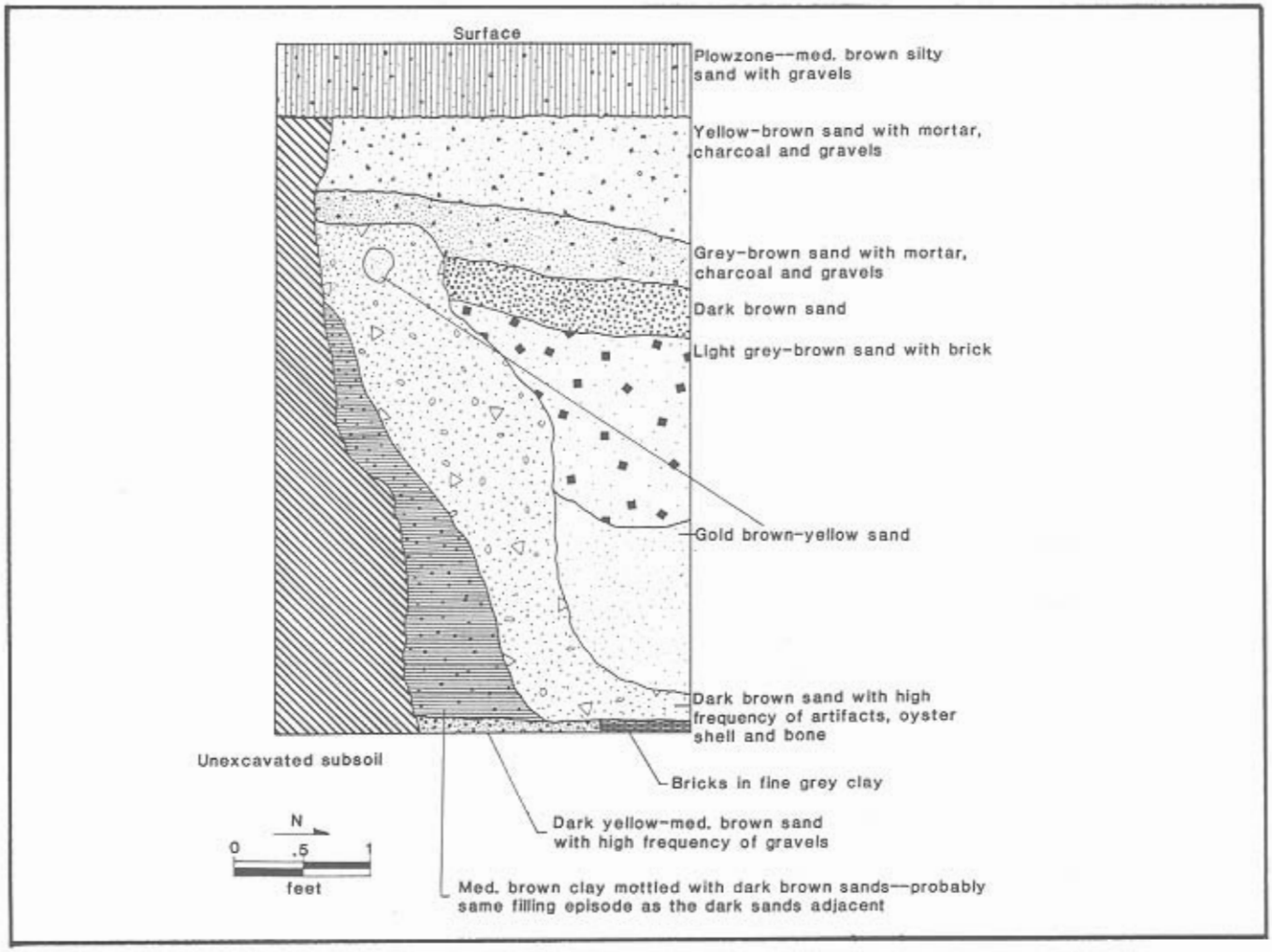
Feature 1	rectangular brick-lined chamber approximately 1.5' X 2.5' located in N40W20, 2.5' below plow zone surface
Feature 2	possible well located in N10W42
Feature 3	postmold located in N10W42
Feature 4	stone foundation
Feature 5	trash midden located in S15E38
Feature 6	unusual soil encountered during excavation of Feature 5 located in S15E38 - trash midden
Feature 7	unusually deep plowzone, artifact bearing STP area

Two additional features were identified during the course of the Phase II shovel test pit excavations; Feature 2 at Shovel Test Pit 42-11, and Feature 5 at Shovel Test Pit 42-39. The soil profile exhibited by Shovel Test Pit 42-11 consisted of a brown sandy loam plow zone above a mixed and mottled orange and dark brown sandy loam with carbon flecking and artifacts. A 3' x 3' test unit (N10W42) was excavated immediately to the west of the shovel test pit in order to identify and define the feature. The soil stratigraphy identified in this test unit consisted of a combination of mottled vertical and horizontal strata made up of a variety of soil types (Figure 11). A portion of Feature 2 was identified beneath the plow zone in this unit and was excavated in 0.25' levels to a depth of 5.0' below ground surface. Two different and distinct soil strata were observed within the limits of the feature, consisting of an inner organic sandy loam, and an outer, non-organic sandy loam. Excavation of Feature 2 treated each of these strata as separate excavation levels. The stratigraphy exhibited by the Feature 2 profile was strikingly similar to that seen associated with a late eighteenth century well feature at the Whitten Road site (7NC-D-100) in New Castle County (Shaffer et al. 1988:112-128). Complete, in situ bricks were located in the northwest corner of N10W42 at the bottom of the excavation and lend support to the tentative conclusion that Feature 2 is a well, perhaps brick-lined. Feature 3 was identified during the excavation of N10W42. Feature 3 was somewhat rectangular in shape and extended to a depth of 1.3' below the plow zone surface. Feature 3 is believed to be a post mold, possibly associated with Feature 2.

The soil stratigraphy encountered in Shovel Test Pit 42-39 consisted of a 0.6' plow zone overlying a subsoil of medium brown silty loam with large amounts of carbon flecking (Figure 12). Beneath this level was a yellow brown silty clay which graded into a yellow-brown mottled clay with gravels. Shovel Test Pit 42-45 exhibited a similar soil profile and included the same medium brown silt loam with carbon flecking as seen in 42-39. Artifacts recovered from these shovel test pits included shell fragments, redware and whiteware fragments, glass, brick, clay pipe stem, and nail fragments. A 3' x 3' test unit (S15E38) was excavated adjacent to Shovel Test Pit 42-39 in order to better define and identify the soil discontinuity. Upon completion of plow zone removal from the test unit, two distinct soil levels were encountered, neither of which were subsoil. Each was excavated separately and assigned a separate feature number (Features 5 and 6).

FIGURE 11

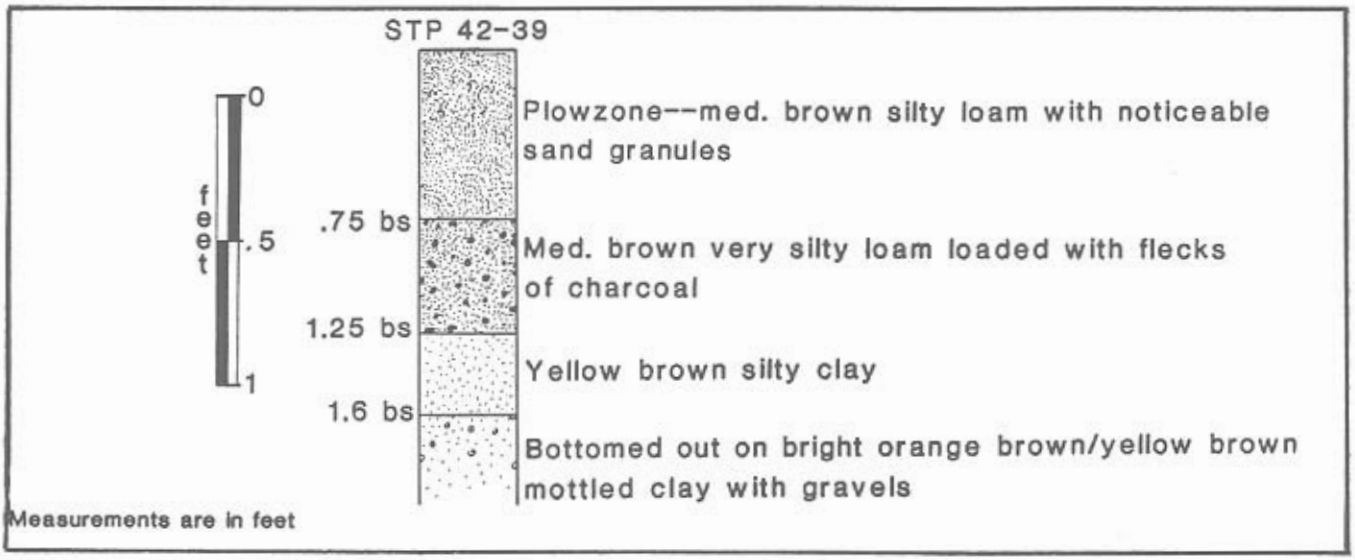
West Wall Soil Profile of N10W42, Feature 2



The Feature 5 soil consisted of a medium to dark brown sandy loam with some clay lenses. The feature extended approximately 0.7' in depth below ground surface, and was roughly circular in shape, extending 1.75' from the west wall of the test unit and was about 2.75' from north to south. The feature was shallow and flat-bottomed with nearly vertical walls (Figure 13). Artifacts recovered from Feature 5 included brick fragments, bone and shell fragments, glass and nail fragments, redware, whiteware, brown stoneware, lead glazed earthenware, and white salt-glazed stoneware fragments. Following the excavation of Feature 5 in S15E38, Feature 6 was excavated, consisting of the remainder of Test Unit S15E38. The soils associated with Feature 6 consisted of a light to medium brown sandy loam with significant amounts of brick fragments and carbon flecks that extended to a depth of 1.35' below ground surface. Artifacts recovered from Feature 6 included brick fragments, white salt-glazed stoneware, redware, creamware, and whiteware fragments, and nail and glass fragments. A relatively large amount of oyster shell fragments were recovered from the feature, and also from Shovel Test Pits 42-45 and 42-49, located to the east of S15E38. The presence of Feature 6 soils to the east of the test unit provides a rough estimate of the size of the feature, and suggests that the features may be trash middens. The different soil types in each of the features indicates that they may have been deposited at different times.

FIGURE 12

Soil Profile of STP 42-39



A total of six test squares and three trenches were excavated in the location of the house foundation (Feature 4) identified during the Phase I testing. The purpose of these units was to locate any intact portions of the foundation, to define the dimensions of the foundation, and to locate any builder's trenches or other features associated with the foundation (Figure 14). These excavation units identified the remains of the stone foundation walls with external dimensions of approximately 32' x 37.5'. The walls were partially intact, although in numerous places there was evidence of robbing. Artifacts recovered from within Feature 4 included redware, creamware, pearlware, stoneware, porcelain, and whiteware fragments, window and bottle glass fragments, bone, and oyster shell.

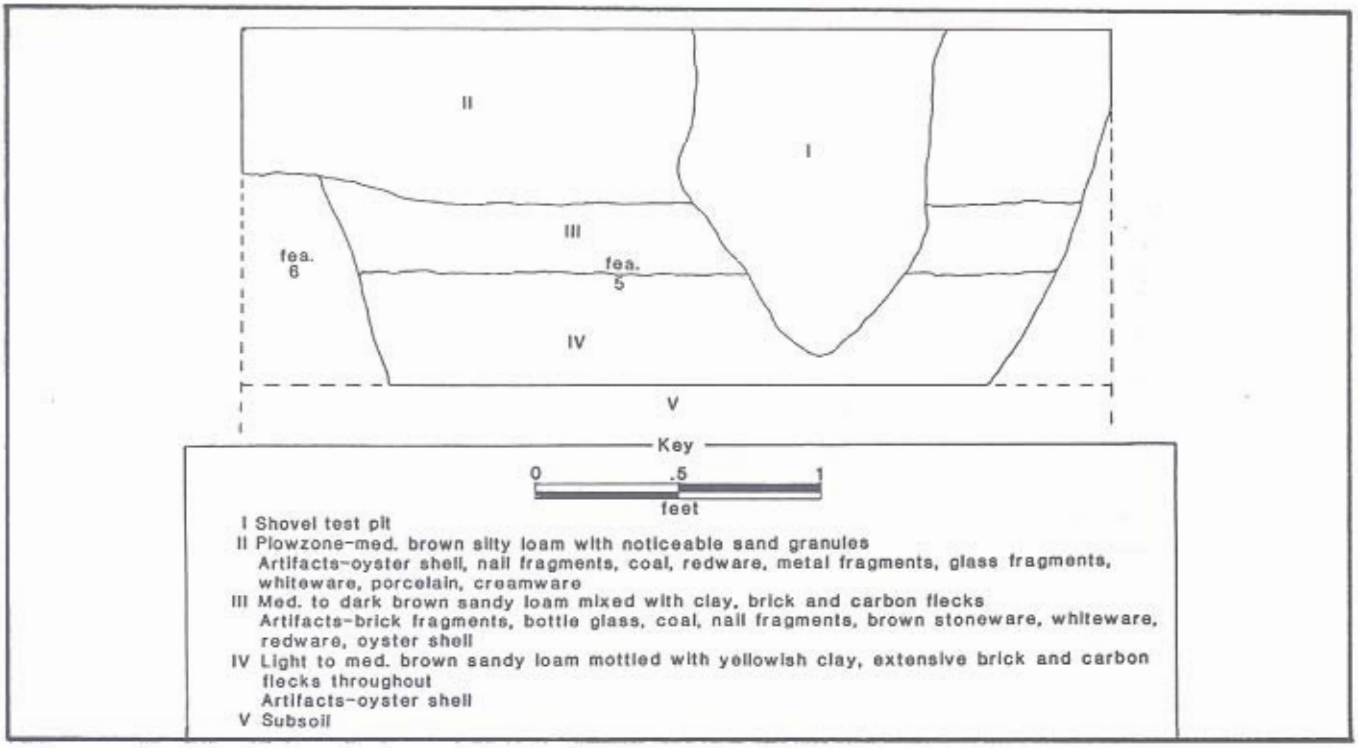
Test Unit N40W20 (5' x 5') excavated within the limits of Feature 4, located a rectangular brick-lined feature (Feature 1) approximately 2.5' below ground surface (Figure 14) at the bottom of the cellar hole. Feature 1 was lined with bricks which were mortared together and slightly off-set from one course to the next. The feature was located against the west wall of N40W20 and was approximately 2.5' x 1.5' in size (Figure 15). A small semi-circular stain, about 0.2' in depth, was excavated on the north edge of Feature 1, and contained fragments of charcoal and mortar, and a prehistoric chert flake. Artifacts recovered from Feature 1 included creamware, window and bottle glass, bone, and oyster shell fragments. The function of this small brick feature is presently unknown.

A second 5' x 5' test unit (N45W35) was excavated within the limits of the house foundation (Figure 14). The plow zone level in this unit was 0.9' in depth, and was underlain by brick rubble and architectural debris which extended to a depth of 2.3' below ground surface. This level contained fewer historic artifacts than the plow zone, and the majority of these were concentrated in the southeast corner of the test unit. Beneath this rubble level was the hard-packed dirt floor of the cellar hole, consisting of an orange-brown silt loam about 0.2' thick, with pearlwares, whitewares, redwares, window and bottle glass, nails and bone fragments present.

Three trenches were excavated as extensions of the shovel test pits which initially identified the structural foundation (Feature 4; Figure 14). The trenches consisted of 1.0' x 5.0' contiguous units. Trench A consisted of

FIGURE 13

Soil Profile of S15E38 Showing Features 5 and 6



two sections: A-1 and A-2 were located on the W15 line beginning at N30 and extended to N40, and A-5 to A-8 from N50 to N70 (Figure 14). In section A-1, the plow zone was the only level excavated, and a large amount of brick fragments were recovered. Trench A-2 was excavated to a depth of 2.1' below ground surface and identified the remains of a relatively intact stone foundation section located in the south wall of the test unit. The foundation wall was approximately 2.4' thick. Associated artifacts recovered from Trench A-2 included predominantly brick and mortar rubble. Trenches A-5 and A-6 were excavated through the plow zone and terminated when no foundation remains were encountered. Besides large amounts of brick and mortar, pearlware, redware, whiteware, glass, nails, pipestem fragments, and oyster shell fragments were recovered.

The excavation of trenches A-7 and A-8 identified the remains of a heavily disturbed section of the stone foundation, indicative of robber activity. Artifacts recovered consisted of a few ceramic fragments, glass and nail sherds, along with the usual stone, brick and mortar fragments.

Trench B consisted of two 1.0' x 5.0' sections (B-1 and B-2) excavated perpendicular to Trench A (Figure 14). Both Trenches A-5 and B-1 started at Shovel Test Pit 39-52. No intact foundation remains were identified in Trench B-1, although large amounts of brick and architectural debris were encountered. The excavation of Trench B-2 revealed a substantially disturbed brick rubble concentration mixed with foundation stone fragments, again suggesting robbing (Figure 14).

Trench C consisted of two 1.0' x 5.0' excavation units (C-1 and C-2), excavated west of and adjacent to Shovel Test Pit 39- 51, along the N50 transect (Figure 14). Rubble associated with the foundation was identified in the west edge of Trench C-1 and the eastern portion of C-2. A few historic artifacts were recovered, consisting

FIGURE 14

Map of the Field Investigations of Feature 4

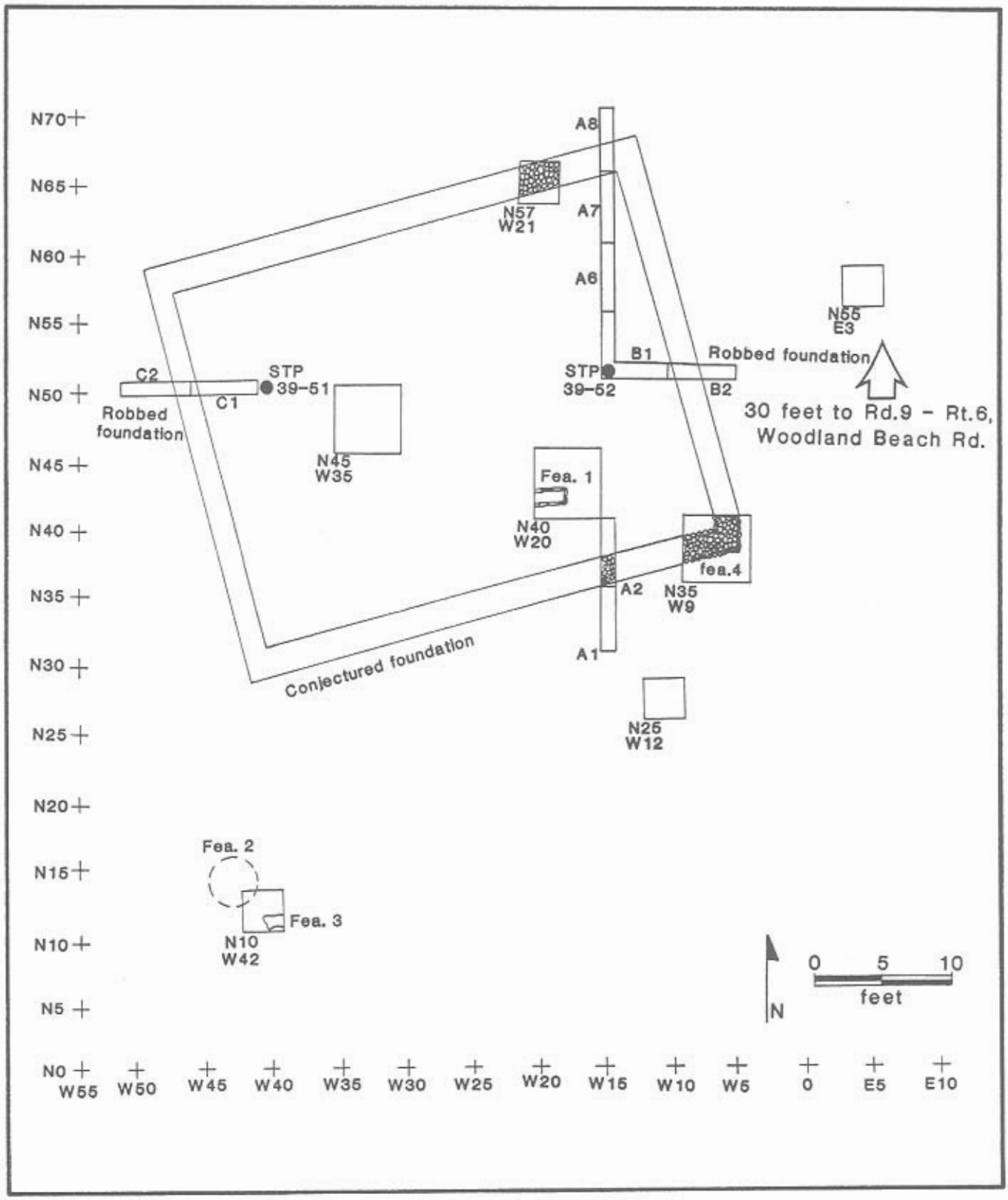
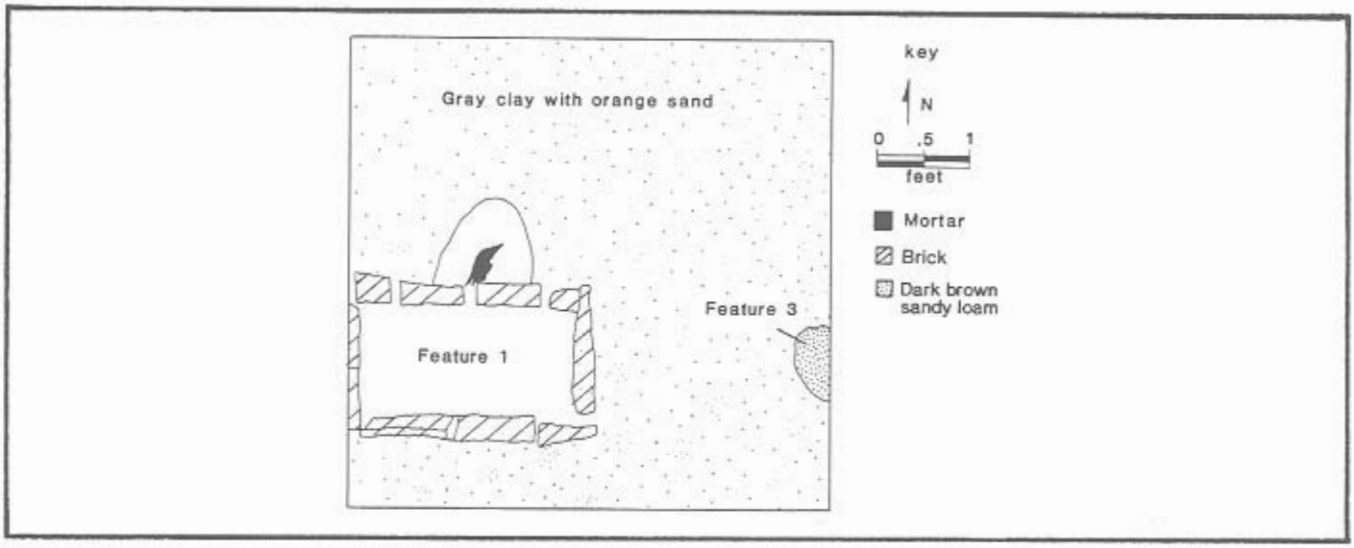


FIGURE 15

Plan View Map of Feature 1, N40W20



mostly of brick and mortar fragments, along with some pearlware, porcelain, redware, glass and nail fragments. A possible builder's trench was identified in section C-2 (Figure 14). However, the builder's trench was not investigated and its proximity with the disturbed foundation makes it difficult to ascertain its cultural association or function.

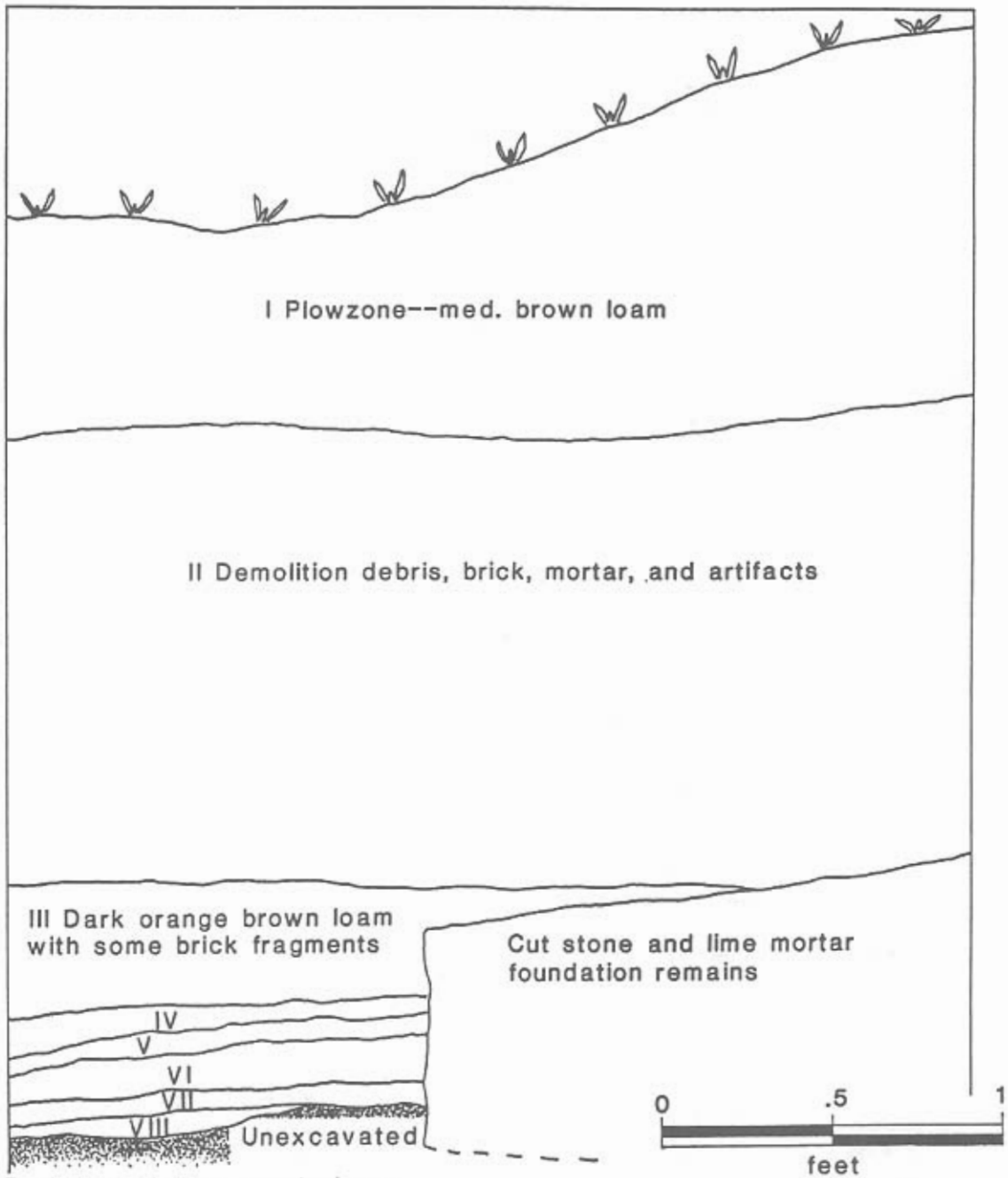
Two test units were excavated and revealed two more sections of intact foundation including the southeast corner of the structure (Figure 14). Test Unit N63W21 was a 3' x 3' test unit which revealed an intact portion of the foundation (Feature 4) believed to be the north wall. The stone wall was located approximately 2.5 feet below the plow zone and was covered with a 1.5 foot thick layer of demolition rubble. The demolition fill was excavated and further work in N63W21 adjacent to Feature 4 revealed what was believed to be the cellar floor. Stratigraphy below the demolition fill consisted of several thin soil layers and mortar layers (Figure 16). Recovered artifacts consisted of a variety of ceramics and glass fragments, nail fragments, pipestems, and bone.

Excavation of 3' x 3' Test Unit N35W9 revealed the intact southeast corner of the stone foundation (Figure 14). Removal of the plow zone exposed a zig-zag arrangement of bricks and the unit was enlarged to a 5' x 5' test unit. Soils on the interior side of the foundation were loosely packed with soil and building debris. Artifacts recovered from N35W9 included redware, creamware, pearlware, and whiteware fragments, glass fragments, nails, brick, and bone and shell fragments. The majority of the artifacts came from the plow zone.

Two 3' x 3' test units were excavated outside of Feature 4 in an attempt to identify features associated with Feature 4 (Figure 14). No features were identified in N25W12 and the artifacts recovered were representative of the artifacts recovered from the other test units. Test Unit N55E3 did not reveal any clear definable features. However, the subsoil was consistently mottled with brick, mortar, and charcoal fragments, and artifacts. The northwest corner of N55E3 was excavated slightly deeper with the above-mentioned soil conditions continuing and is probably a reflection of demolition activities.

FIGURE 16

West Wall Soil Profile of N63W21



IV Dark gray brown sandy loam

V Layer of mortar, probably construction related

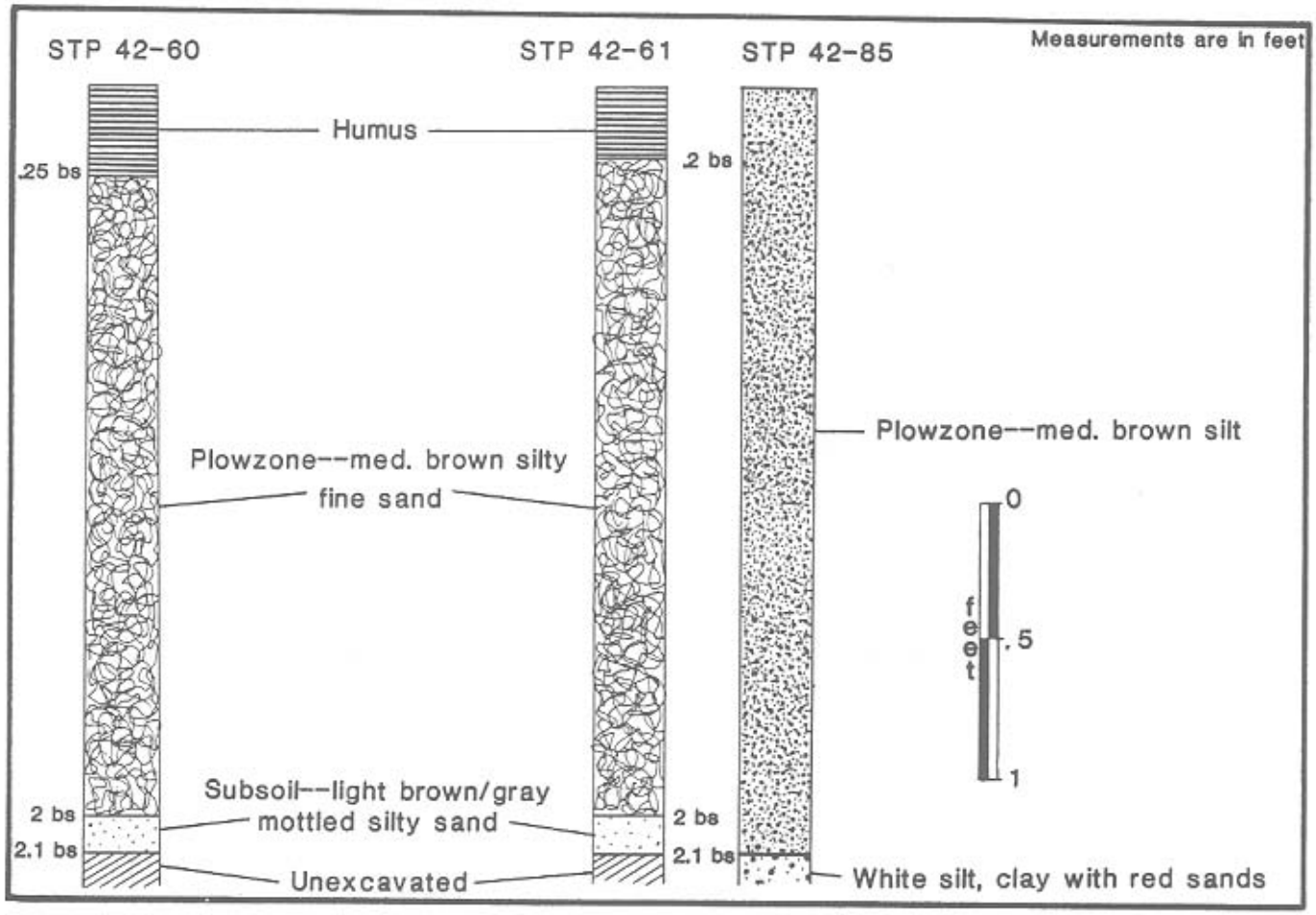
VI Brown loam mottled with brick and mortar fragments

VII Layer of mortar, probably construction related

VIII Coarse med. brown and dark brown sands, some buff clay pockets. Sterile subsoil

FIGURE 17

Soil Profiles of STPs 42-60, 42-61, 42-85, Feature 7



An additional area of interest (Feature 7) was identified by Shovel Test Pits 42-60, 42-61, and 42-85 and consisted of unusually deep plow zones (2.0-2.5 feet) overlying mottled presumably sterile subsoil (Figures 10 and 17). Artifacts were found in higher concentrations and throughout the matrix column in these shovel test pits than in the surrounding shovel test pits. No test units were excavated in this area. Feature 7 is thought to be a midden which was later buried by agriculturally- induced slope wash.

In total, the Phase I and II shovel testing at the John Darrach Store site recovered over 800 artifacts. Ceramics account for more than one-quarter of the assemblage in the following proportions: redwares (34%), pearlwares (24%), whitewares (16.4%), creamwares (11.8%), porcelain (7.4%), and smaller amounts of ironstone, salt-glazed stonewares, Staffordshire, and Rockingham. The densities and distributions of these ceramic types across the site are indicative of the chronological occupation of the Darrach Store site, and suggest the locations of support structures, outbuildings, and trash or refuse middens. Distribution maps of selected artifact classes from the shovel test pits across the site were generated and are shown in Figures 18 to 22. The redware distribution is concentrated in three areas: around Shovel Test Pit 39-57, east of Features 5 and 6, and in the vicinity of Shovel Test Pits 39-61, 42-42, and 42-41 (Figure 18). Creamware shows no particular concentrations, but is found in fairly high numbers east of the foundation and north of Features 5 and 6 (Figure 19). Pearlware concentrations are

FIGURE 18

Redware Distribution Map

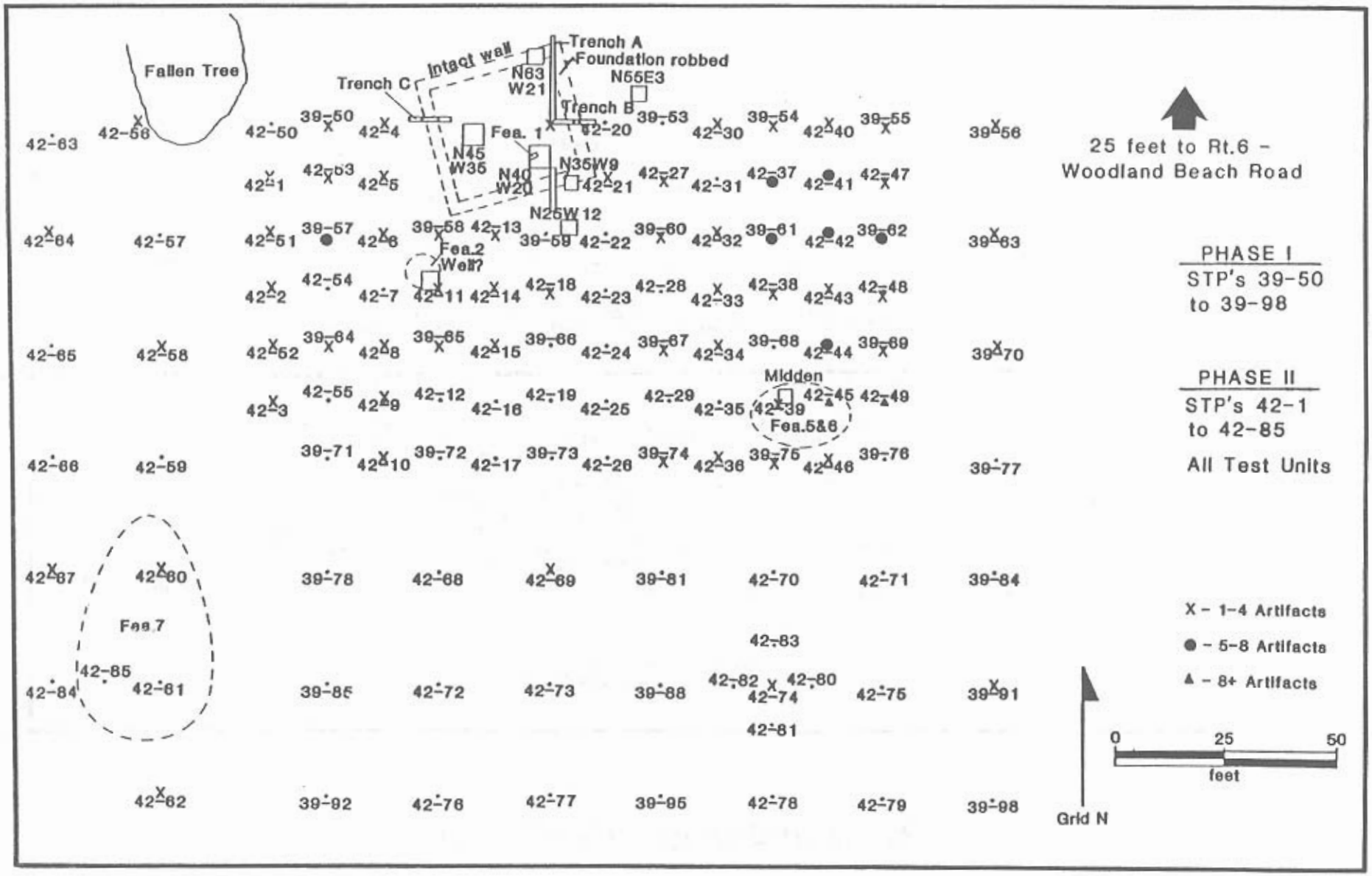
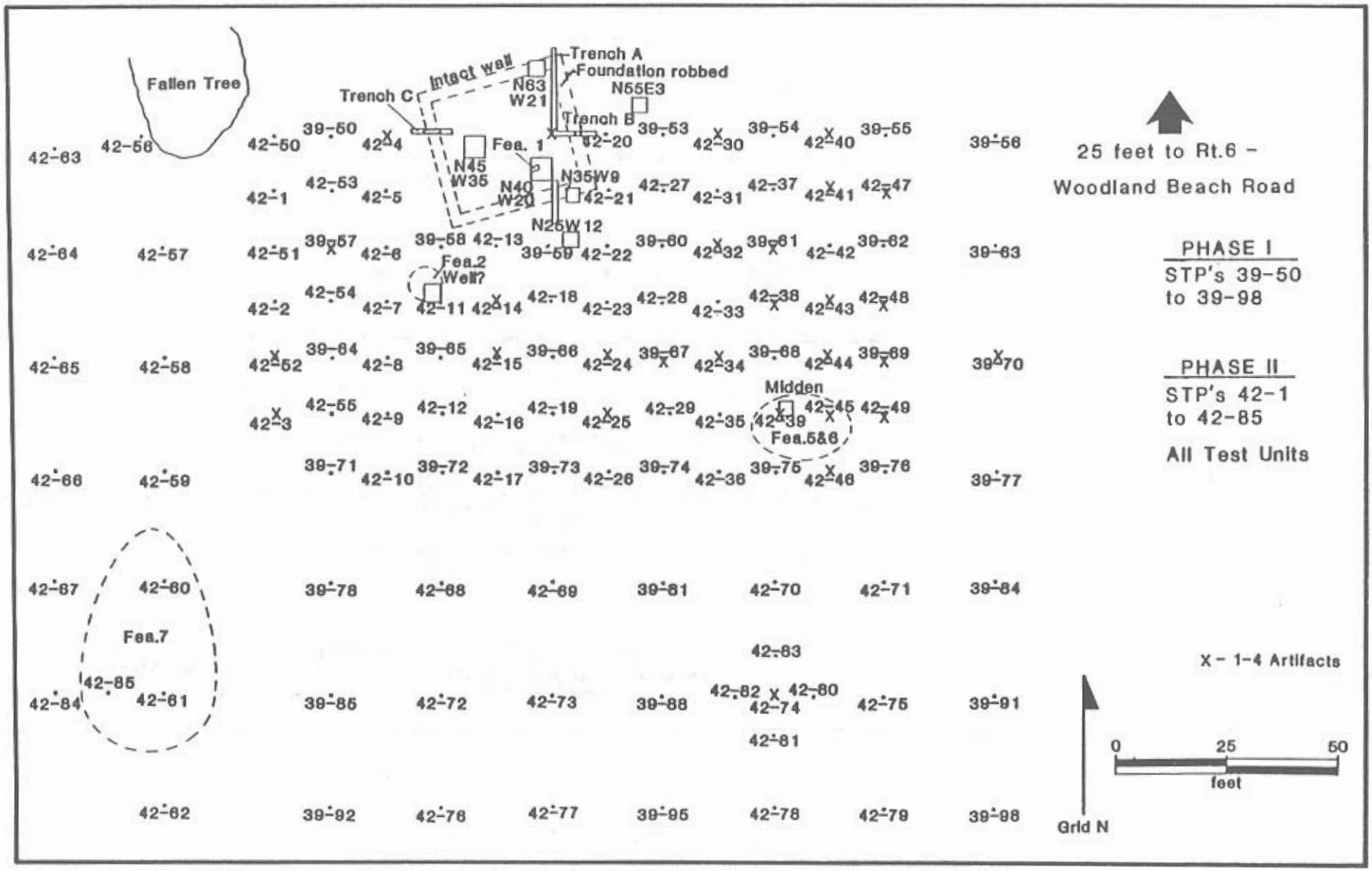


FIGURE 19

Creamware Distribution Map



centered on Feature 2 and Shovel Test Pit 39-61 (Figure 20). The distributions of nails and whitewares/ ironstone at the site show no significant concentrations (Figures 21 and 22). The density of creamwares, redwares, and pearlwares east and south of the foundation suggest that this area may represent an activity area associated with the Darrach Store, and the two concentrations of redwares east of Feature 4 may represent the locations of either trash middens or outbuildings. The widespread scatter of whitewares/ironstone across the site is indicative of yard scatter or post-occupational plowing.

The site limits of the John Darrach Store site are shown on Figure 23. The site is bounded on the north by Delaware 6 (Route 9 - East Commerce Street and/or Woodland Beach Road), and extends south from there about 150 to 175 feet. Within the limits of the site, two distinct areas of artifact density and concentration were observed. Area I, a roughly oval-shaped zone around the foundation, (Figure 23) consists of the core area of the site, which extends about 50' south of the foundation, 75' west, and 100' east of the foundation. The cellar hole (Feature 4), the possible well (Feature 2), and the trash midden (Features 5 and 6) are included within the limits of this area. Within Area I the artifact densities ranged between 15 and 50 artifacts per shovel test pit. Area I represents the main activity area of the site, and is expected to contain the majority of artifact-bearing plow zone and subsurface deposits. Based on the results of other archaeological investigations at eighteenth and nineteenth century farmsteads in Delaware and other parts of the country (Hoseth et al. 1990; Catts and Custer 1990; Shaffer et al. 1988; Moir and Jurney 1987), this area probably contains the location of small outbuildings and support structures, refuse pits and Inner Active Yard scatter.

Area II consists of the large area of substantially reduced artifact density (often less than 3 artifacts per shovel test pit) south of Area I (Figure 23). Feature 7, a trash pit located more than 120' southwest of Feature 4, is located in this area. Area II may contain additional features associated with larger outbuildings and ancillary support structures, but the artifact yield is expected to be lower than that provided by Area I.

Based on the results of the Phase I and II testing, the John Darrach Store site (7K-A-102) is considered to be eligible for inclusion on the National Register of Historic Places under Criterion D, as the site is likely to yield significant information relating to the historical development of the region (Appendices II and III).

PHASE I SURVEY OF OTHER CULTURAL RESOURCES

All 2800 feet of the Proposed Realignment of Delaware 6 were subjected to Phase I survey, which included a preliminary archival check and, in most areas, a pedestrian survey of a field (Figure 1). Three other cultural resources were identified as lying within or closely adjacent to the Proposed Right-of-Way and each one was investigated. Because no Phase II work was done on any of them, they are addressed in this section. Each is discussed separately below.

Historic maps and atlases were examined and two additional structures were noted from Beers' Atlas of Delaware (1868; Figure 7). This map shows the residence of J. G. Black on the south side of Delaware 6 and a dwelling belonging to J. R. Clements of Smyrna Landing is located east of the Darrach Store site on farmland now owned by Smyrna Airport. The residence of J. G. Black lies on the south side of the road, lying an indeterminate distance into the field. The USGS 7.5 minute Smyrna quadrangle (1956) depicts a structure at this location lying approximately 500 feet south of Delaware 6. An informant, Mr. Hall of Hall Realty Holding Company, stated that the structure burned in the late 1960s or early 1970s and his description of it suggested that it most likely was the farm shown on Beers' Atlas (1868) under the label of "J. G. Black" (Figure 7). Presently, the dwelling site and the farmlane leading north to the road are both heavily overgrown. A pedestrian survey of the site resulted in the discovery of: 1) a filled-in cellar hole, 2) concrete steps on the north side of the cellar hole (presumed doorway and/or porch), and 3) numerous burned timbers in and around the cellar hole. The old farmlane, now heavily overgrown, was also examined, and the intersection of the lane and Delaware 6 was investigated for the remains of a tenant house, although it was not suspected that one had ever been part of the farmstead. No cultural resources were found north of the house foundation, and since the latter lies approximately 450 feet south of the southern

FIGURE 20

Pearlware Distribution Map

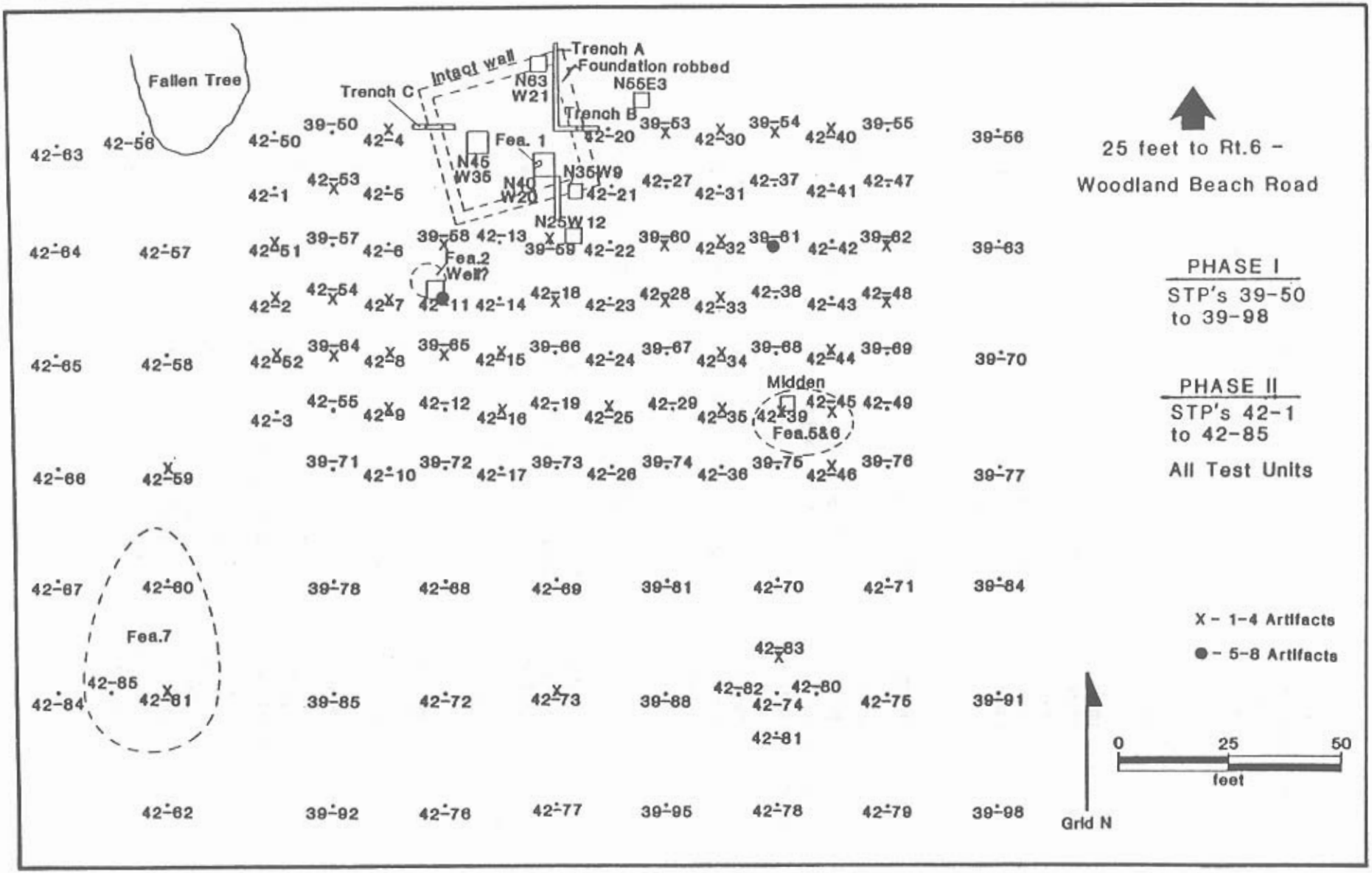


FIGURE 21

Nail Distribution Map

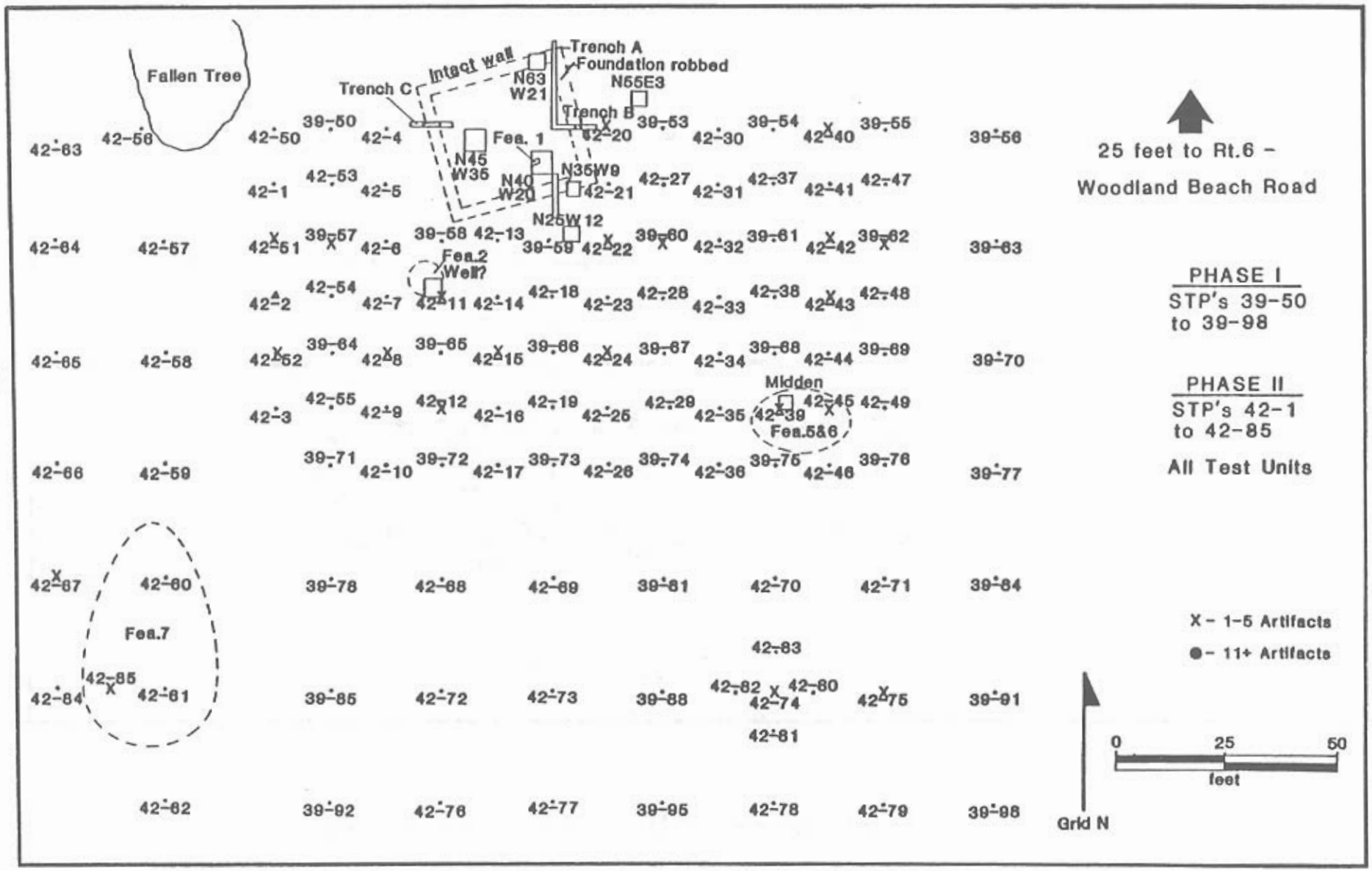


FIGURE 22

Whiteware and Ironstone Distribution Map

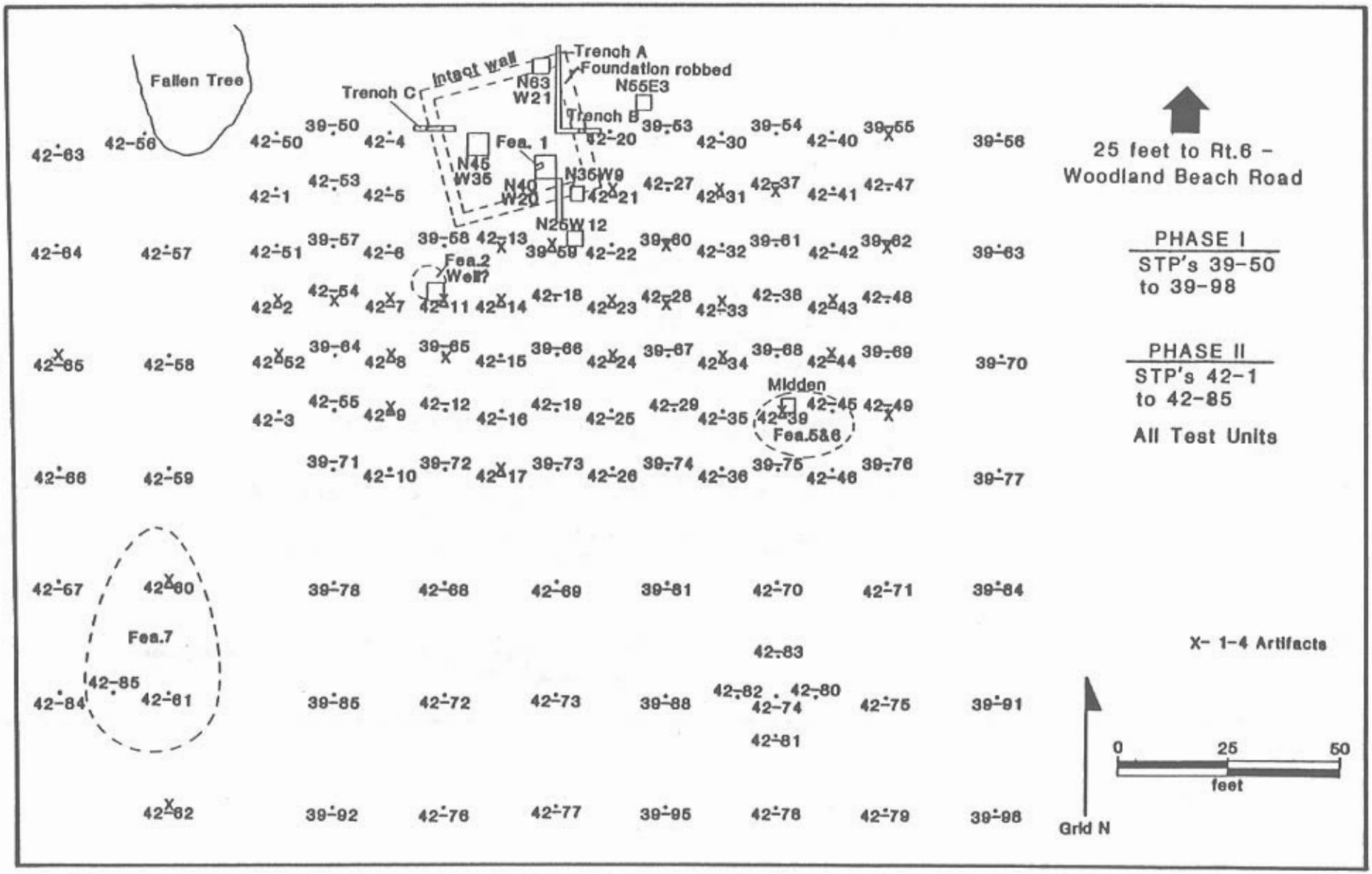
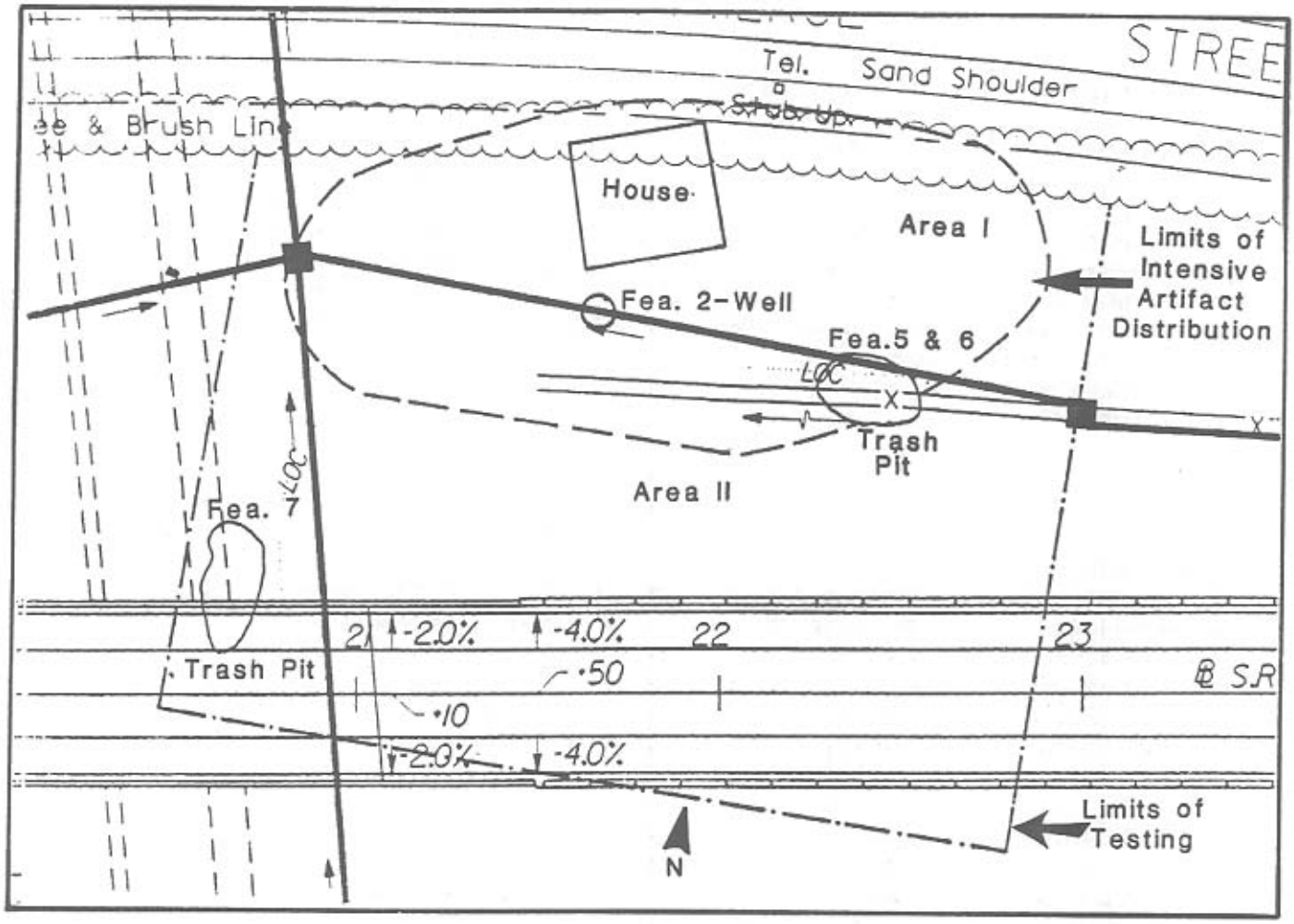


FIGURE 23

John Darrach Store Site Limits



limit of the Proposed Right-of-Way, it was determined that this resource will not be affected by the Proposed Realignment. No further work was conducted at the Black site.

The large corn and soybean field owned by Hall Realty Holding Company offered some surface visibility and that part of the field within the Proposed Right-of-Way was walked. The Bailey barn shown on the 1811 plat of the Kennedy estate was calculated to lie in the present northwest corner of the field (Figure 4). No trace of this structure was noted on the surface and no further work was conducted at the site. The eastern portion of the Proposed Right-of-Way traversed a section of wheat field owned by Reynolds Jones of Summit Aviation. Beers' Atlas (1868) shows a structure in the name of "J. R. Clements" situated on the south side of the road which appeared to lie in the Proposed Right-of-Way (Figure 7). The Proposed Right-of-Way extends east from the Hall property approximately 700 feet onto the Smyrna Airport farm before it rejoins the present alignment of Delaware 6. The width of the Proposed Right-of-Way ranges from zero to 150 feet into the field and included a small rise in the approximate position of the Clements house. Since the surface visibility of the field was nil, a Phase I shovel test pit plan was devised. Eight shovel test pits were placed at 25 foot intervals across this rise in a line parallel to

the south side of present Delaware 6. The profile exhibited a plow zone underlain by tan silty sands. Artifacts recovered included coal, redware, whiteware, and oxidized nail fragments, and all of the artifacts were found in the plow zone. No indications of a cellar hole or other intact historic features were apparent from the shovel test pitting, and because all of the artifacts were found in a disturbed plow zone context, no further work is recommended for this site.

CONCLUSIONS AND RECOMMENDATIONS

IMPLICATIONS FOR REGIONAL HISTORY

From a regional perspective, the Darrach Store site could be used to study the growth and development of Kent County's mercantile and commercial landscape in the eighteenth and nineteenth centuries. The site was part of a much larger, interrelated network of sites involved in trade and exchange including landings, wharves and warehouses, the town of Smyrna, and the agricultural hinterland of the surrounding region. The Darrach Store site represents a rural commercial store and domestic site occupation, and can be utilized to provide archaeological data not often recovered pertaining to marketing and retail in the Middle Atlantic region. Thus, additional investigations at the site could be used to compare the artifact assemblages from contemporary domestic sites with those derived from the Dickson Store (Catts, Hodny, and Custer 1989) and the Darrach Store, a comparison that could allow the archaeological examination of consumer choice and economic status in eighteenth and nineteenth century Delaware.

The study of consumer behavior by historical archaeologists has recently received much attention, and several studies have been published using a consumer-choice framework as a theoretical basis (Spencer-Wood and Heberling 1987; Morin, Klein and Freidlander 1986; Miller 1980). The majority of these studies draw on the demand-side of economic systems, looking at the market effects on domestic archaeological site assemblages. A few researchers have been concerned with the supply-side of the economic equation, but few supply-side archaeological sites have been investigated or studied, making comparisons difficult (Adams 1976; Riordan and Adams 1985; Miller and Hurry 1983). Recently, archaeological investigations were conducted at the site of William Dickson's Store in Christiana Bridge, New Castle County, Delaware (Catts, Hodny, and Custer 1989), and the results of this testing could be compared and contrasted with the Darrach Store materials. The value of both of these sites, then, is that they could provide much needed supply-side archaeological data to complement the demand-side studies of consumer choice in historical archaeology.

The Darrach Store site was probably occupied as a domestic residence in addition to its use as a store, and this domestic function could provide data relating to the material remains of the home of upper class occupants. The Whites, Darrachs, Kennedys, and Cumminses were all interrelated, prominent families in Kent County's social, political and economic scene. In Delaware, few upper class households have been examined archaeologically, and data derived from additional Darrach Store investigations could be used to broaden the archaeological data base concerning this important segment of the region's population.

Based on the results of the Phase I and II research, Phase III investigations at the Darrach Store focused on the use of the site as a regional nodal point (Hickman 1977:96), or a location that, relative to the surrounding region, is the scene of frequent social interactions of various kinds. A store certainly fits this description, and the size, placement, and location of the Darrach Store on the Smyrna Landing Road clearly indicates that the site was a significant nodal point during the eighteenth and nineteenth centuries. Equally important for the chronology of the site would be the investigation of <u>why</u> the Darrach Store declined in prominence and was eventually demolished. From a broader perspective, this growth and decline could be attributed to the changing economic and social patterns in the region during the nineteenth century, and the Darrach Store site could be used to investigate changes in land use, and variations in social and economic factors through time.