APPENDIX II

RESEARCH PROPOSALS

ARCHEOLOGY, CULTURAL RESOURCE MANAGEMENT

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Proposal and Research Plan for Phase I and Extended Phase I Investigations for the Proposed Dualization of Route 141 from Route 100 (Montchanin Road) to U. S. Route 202 (Concord Pike) in New Castle County, Delaware

July, 1985

Prepared by : Thunderbird Archeological Associates, Inc.

Introduction

This proposal has been prepared in response to a request from the Delaware Department of Transportation for a Cultural Resources Survey of the Proposed Dualization of Route 141 from Route 100 (Montchanin Road) to U.S. Route 202 (Concord Pike) in New Castle County, Delaware. The proposal has been prepared by Thunderbird Archeological Associates, Inc. to provide a Phase I Reconnaissance and Phase II Intensive Survey and Site Evaluation study in accordance with the specifications indicated in the request. A study plan and budget are provided first for the Phase I reconnaissance and then for the Phase II work. The latter work must be estimated since, although some historic sites have been previously identified, a complete inventory will not be available until the Phase I reconnaissance has been completed. At that time, as specified in the request, a formal consultation between the Federal Highway Administration, the Delaware Department of Transportation and the Delaware Bureau of Archaeology and Historic Preservation (the Delaware State Historic Preservation Office) and the consultant will take place to provide a management report and specific and final plans for the completion of any necessary Phase II work. Determinations of Eligibility will also be provided, as appropriate. The consultant will also consult informally and regularly with the Department of Transportation and the Bureau of Archaeology and Historic Preservation to keep them advised of the progress and results of the Phase I investigations.

Background

The study area is located in the Piedmont uplands in New Castle County, crossing the Brandywine River and, at its eastern end, straddling the drainage divide between the Brandywine and Shellpot Creek. Although this location is close to the Fall Line, the coincidence of the Fall Line with coastal marshes along the Delaware Bay made locations downstream from the study area more attractive for permanent and seasonal occupations for prehistoric populations than the study area. Custer's research suggests that short-term procurement and camp sites may be likely in the Piedmont uplands during any prehistoric time period, but that only during the Late Archaic/Woodland I period are larger, more extensive occupations expected (Custer 1981). The most likely spot in the study area for the latter class of sites is the Brandywine River crossing. The remainder of the areas specifically designated for survey in the Request for Proposal are

highly dissected areas containing low-order streams. Only transient prehistoric sites, located on flats and terraces overlooking the streams, would be expected. The stream channels are steep-sided and eroded and possess no appreciable floodplains, so there is little chance that any occupations immediately adjacent to such streams have survived in situ.

In general, only transient and ephemeral prehistoric sites are expected in the study area, with the exception of the Brandywine River floodplain.

The study area is particularly rich in historic period archeological and historical sites, however. The Brandywine was well suited for the construction of mills, and became a center of industrialization early in the nineteenth century, although agriculture continued to be an important economic activity. Service facilities for the local population are represented in the study area by the school house at the intersection of Barley Mill Road and Montchanin Road, and the tavern and smithy near the intersection of Rockland Road and Route 202. The importance of the industrial activities in and near the study area is reflected by the presence of the Eleutherian Mills National Historic Landmark, and the Eleutherian Mills, Breck's Mill, and Walker's Mill National Register Districts. A distinctive residential pattern sometimes accompanied the industrial development in the form of rural estates, or structures and grounds set aside specifically for residential use. These estates contrast with the more common farmstead occupations that have been investigated in New Castle County (Coleman et. al 1983, Coleman et. al 1984) in several ways, judging from those that have been preserved. They contained a larger proportion of land devoted to non-productive use (i.e. gardens, "parks"), they housed a number of people and facilities devoted to rather elaborate domestic activities, and, it may be predicted, contain more costly and ceremonial artifact assemblages. A greater cost value difference between utilitarian and other artifact classes may also be predicted.

In summary, in addition to the functional components commonly found in rural settings: farmsteads, schools and taverns, the study area for this project contains industrial sites and rural residences of wealthy industrialists. The principal objective of the historical and archeological research proposed here will be to identify and evaluate any sites that may be affected by the proposed highway construction in terms of their eligibility for nomination to the National Register of Historic Places. To provide a proper framework for the evaluation of the archeological

resources in the study area, the following research design is proposed.

Research Design: Prehistoric Resources

With the possible exception of the Brandywine River crossing, the expectation for prehistoric resources is not particularly high. At the Brandywine crossing, the remains of seasonal exploitation of fish runs may be expected, and if these are encountered, useful comparisons may be made to similar Fall Line sites on larger drainages in the Middle Atlantic, such as the Potomac and the Susquehanna. Subsequent residential and/or industrial development during the historic period may have destroyed the appropriate contexts, however. Beyond the Brandywine, only short-term exploitation sites are expected, although if they are unusually rich, it may be possible to compare site function and intensity of use between the Brandywine drainage and the Shellpot drainage which is included in the extreme eastern end of the study area. No significant differences between the two drainages are expected.

Research Design: Historic Resources

The historical context of the study area is unusual because of the presence of early industrial sites and the residences of wealthy families associated with those businesses. It is not clear whether any of the occupations identified in the Scope of Work fall into the latter class of sites or not, but background research should clarify this point. Most of the residential sites appear to be more typical rural farmsteads, but if any of the "country estate" type of sites are present, it will be possible to make comparisons between the spatial organization and artifact assemblages at these sites and those of rural farmsteads identified in the study area and elsewhere in New Castle County (Coleman et. al 1983, Coleman et. al 1984). If residential sites of the "country estate" type are not identified directly in the construction corridor, it will still be possible to address the question of the effects that these occupations had upon the other rural inhabitants of the study area, in comparison with other locations.

The preliminary impression is that such estates tended to cluster near the Brandywine on terrain that was relatively rugged and not particularly well suited for cultivation (though some farming was associated with these estates). It is unlikely that the wealthy occupants of such estates would have made use of the local school, so that it is possible to predict that any archeological remains associated with School Houses 28 and 73 will reflect the same relatively impoverished assemblage found at

the Welsh Tract School near Newark (Catts et. al 1983). Likewise, it is predicted that a local tavern like the Blue Ball Tavern would not have been patronized by the "elite" residents along the Brandywine. The assemblages there are more likely to resemble those on other rural routes, such as the recently excavated hotel site in Stanton (analysis in progress). It seems possible, however, that residential occupations may have been affected by the proximity of the wealthy industrialists, beginning in the nineteenth century.

It may be hypothesized that more affluent farmers in the project area may have been influenced to improve the architectural features of their holdings as well as other aspects of their artifact assemblages in emulation of the standards expressed by their neighbors. The economic values attached to various aspects of that material culture can be analyzed archeologically and, ideally, documentary research will provide an evaluation of the economic status of the various kinds of residents of the study area for comparison. These data can, in turn, be compared to the results of research elsewhere in New Castle County and the Middle Atlantic to determine the degree of influence exerted on the rural residents of the study area. This objective will guide research activities at the residential sites in the study area.

Research Methods

The work has been divided into two phases. Phase I will consist of a preliminary reconnaissance of designated portions of the study area, as indicated on maps provided with the Scope of Work. A general background archival study will be conducted in conjunction with the first phase of work. The linear survey area, as indicated on Figure 5 in the Scope of Work, has been divided into several segments, based on the topographic information provided and a detailed inspection of the study area. These segments are identified on the map included with this proposal and a brief description of them follows, from west to east:

Segment L1: This section extends c. 1200 feet east from the intersection of Montchanin Road and Route 141. It lies on the south side of Route 141, and slopes toward the Brandywine. Three rows of test pits will be placed here, with pits every 100 feet.

Segment L2: This section includes the steeply sloping west side of the Brandywine Valley. Walkover survey will be conducted here.

Segment L3: This consists of the flat portion of the floodplain of the Brandywine on its west bank. Thirty test pits will be placed on this in a grid pattern.

Segment L4: This includes the portion of the linear survey area along the east bank of the Brandywine. There is a steep slope toward the river and a walkover survey is planned. Because of the steep slope, few archeological resources are predicted here or in Segment L2.

Segment L5: This includes the entrance area to the DuPont labs. It appears to be graded. It will be surveyed only if background investigation indicates a particular need to do so.

Segment L6: This section lies on the northwest side of Route 141 within a golf course. A single row of test pits is contemplated here, to identify any undisturbed surfaces that remain following the golf course construction and to detect any artifacts or features associated with the W. Husbands site, identified by the Bureau of Archaeology and Historic Preservation.

Segment L7: This section straddles "New Murphy Road" for about 1500 feet east of its intersection with Rockland Road. About 15 test pits are planned for this area, to be distributed in a linear fashion, or as indicated by the background research.

Segment L8: This includes a section about 650 feet long between New Murphy Road and Old Murphy Road. This area is wooded and seven test pits are planned here.

Segment L9: This relatively flat area lies on the east side of Route 202 (the Concord Pike) and extends up Foulk Road to its intersection with Weldin Road. Two rows of test pits placed every 100 feet are planned for this section. Some modification of this arrangement may be indicated by the background research into the location of the smithy, mentioned by the Delaware Bureau of Archaeology and Historic Preservation.

Segment L10: This is a section south of Weldin Road from the east side of the J.R. Weldin Site area (which will be investigated during the testing program) and an unnamed road west of Watson Run. About ten test pits will be placed in this one thousand foot long section.

Segment L11: Two rows of test pits every 100 feet will be placed here, one on each side of this road west of Watson Run.

For the linear survey segments, survey time calculations have been based on a figure of 3.2 person hours per test pit and walkover coverage of five acres per day per person. It will take approximately 25 days to complete the survey of the linear segments.

Aerial Survey: An additional five days has been allocated for survey of the two areas designated for aerial survey. Walkover survey of these areas will be completed and test pits will be placed in selected locations such as flat areas overlooking streams, ridge toes, and terraces. These locations may have supported limited prehistoric occupation. Background and archival research may also suggest testing at particular locations for the presence of historic period archeological remains.

Survey Techniques: Test pits will be 2.5 feet on a side, all dirt will be screened through quarter inch mesh, and representative profiles recorded. Artifacts will be bagged by natural or arbitrary stratigraphy, as appropriate, and test pit locations will be recorded on plans provided by DelDOT at a scale of one inch equals 200 feet. Some modification of interval spacing of test pits may be used if this is justified in the judgement of the field supervisor.

Following the completion of the Phase I work, a brief management report will be prepared and a formal consultation will be held with all interested parties to make final plans for the Phase II work.

Phase II Site Testing (After completion of Phase I and consultation and approval of DOT, FHWA and BAHP personnel and a new Agreement 311-4)

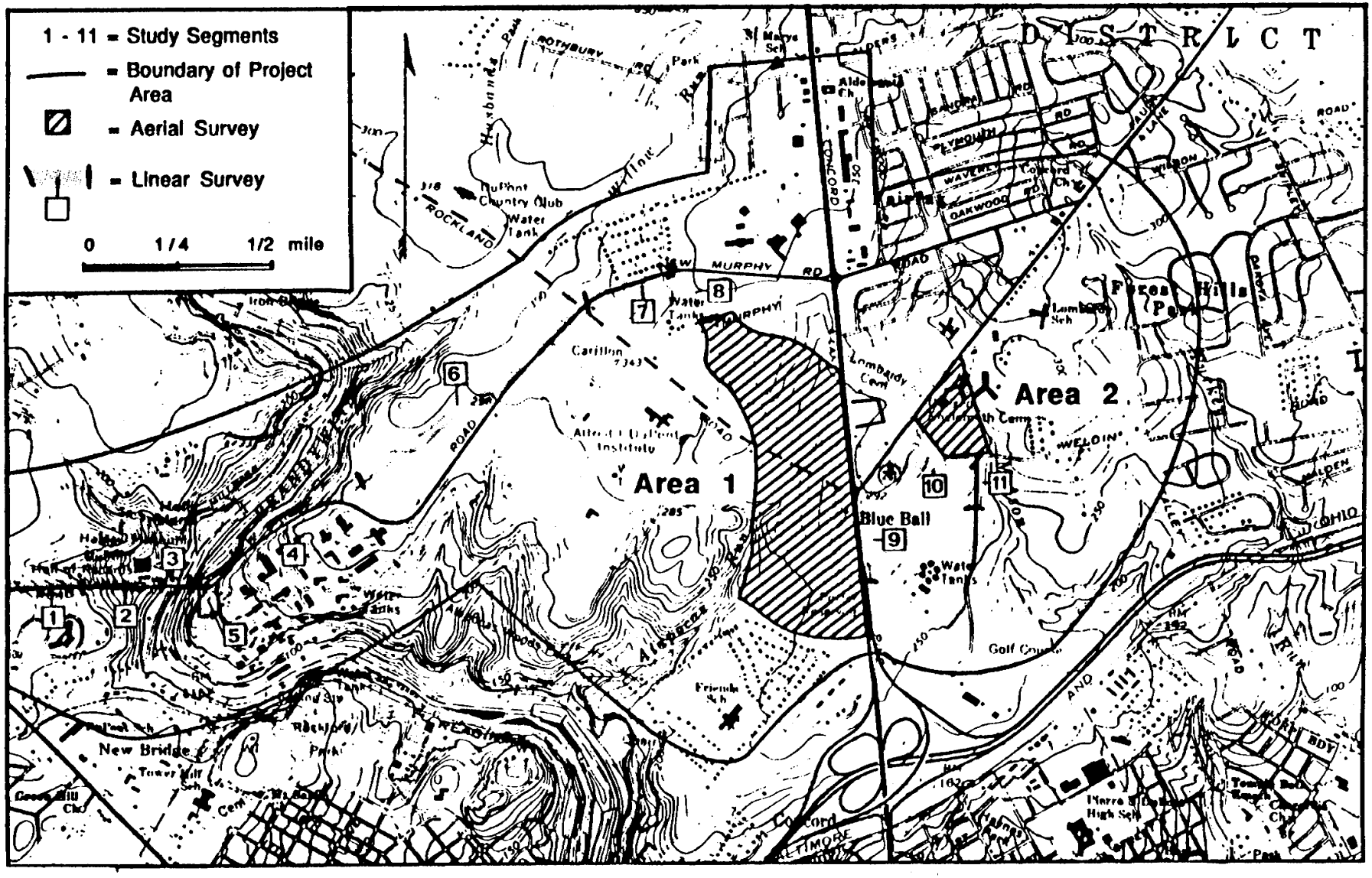
Fifteen known sites are mentioned in the Request for Proposal, although the locations of the W. Husbands, T. Husbands, W.H. Bird, DuPont & Co. and the Smithy site have not been precisely determined. The Phase I survey and archival work should contribute additional information about these sites. In addition, field investigations have been precluded at the DuPont Dairy site, presumably because it is quite recent and significant archeological remains are not expected, and at the Blue Ball Tavern site, because previous investigations have already established the presence of significant archeological remains (Thomas et. al 1980).

In the absence of the more precise information to be provided by the Phase I investigations, an average work plan for testing at one site has been prepared. It includes ten days of background and archival research, five days of field investigations, and lab work and write-up time for one site. The costs for a single site are presented in Appendix A as a budget. Background and archival work will be needed even for the two sites where no fieldwork is contemplated and a single site budget for only archival work is presented as Appendix B. For the purposes of preparing a budget for this proposal, it has been assumed that a complete Phase II investigation will be needed at all thirteen of the sites indicated in the Request for Proposal, so the final budget for the Phase II work was obtained by simply multiplying the single site figure (Appendix A) by thirteen. It should be observed that economies of scale were practiced in estimating the single site budget -- if only one site were being considered, some items such as report costs, would have been estimated at a higher rate in Appendix A. Likewise, for the two sites where only archival work is needed, the single site figures (Appendix B) were doubled.

It is likely that the Phase I research will eliminate one or more of the thirteen sites mentioned in the Request for Proposal from consideration during the Phase II work. It is also very likely that the field survey will discover previously unidentified sites that will require further testing. For this reason, the final testing program will be determined by consultation after the completion of the Phase I work and the Phase II budget must be considered an estimate. If fewer sites require Phase II invetigations than are considered in this proposal, the costs will be reduced by the amounts indicated.

The final product of the Phase I and Phase II research will be a report describing the assessment activities and the results of the research. Where the results justify it, Determinations of Eligibility forms will be prepared along with specific recommendations for mitigation and budgets as appropriate. The report and recommendations will be prepared in consultation with the Delaware Department of Transportation and the Delaware Bureau of Archaeology and Historic Preservation. All artifacts and field documents will be returned to the Island Field Museum or any other repository designated by the Delaware Bureau of Archaeology and Historic Preservation.

FIGURE 2
PORTION OF WILMINGTON NORTH 7.5' USGS QUADRANGLE
Showing Location of Area Surveyed



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Proposal
Route 141 Extended
Extended Phase I Archeological Investigations

January, 1986

Prepared by : Thunderbird Archeological Associates, Inc.

141 Extended, Phase II, Proposal summary:

Specific proposals and budgets for Phase II investigations at several sites in the Route 141 extended corridor are included here. Phase I investigations have indicated the likelihood that archeological remains are present at each of these sites, and the purpose of the Phase II work is to determine whether or not the archeological remains at the sites are significant with regard to the criteria for eligibility to the National Register of Historic places. At two sites, Keg Factory Site Area and the J. R. Weldin Plantation Site, background research is proposed as a preliminary step toward the preparation of an archeological base map. This has been done because of the extensive remains evident at the surface and the desire to obtain as much information as possible about the function and distribution of these features prior to the mapping process. After the background work is completed, archeological base maps will be prepared by Delaware Department of Transportation survey crews, under the direction of a supervising archeologist. Separate proposals for the test excavation program will be submitted, as addenda to the work proposed here.

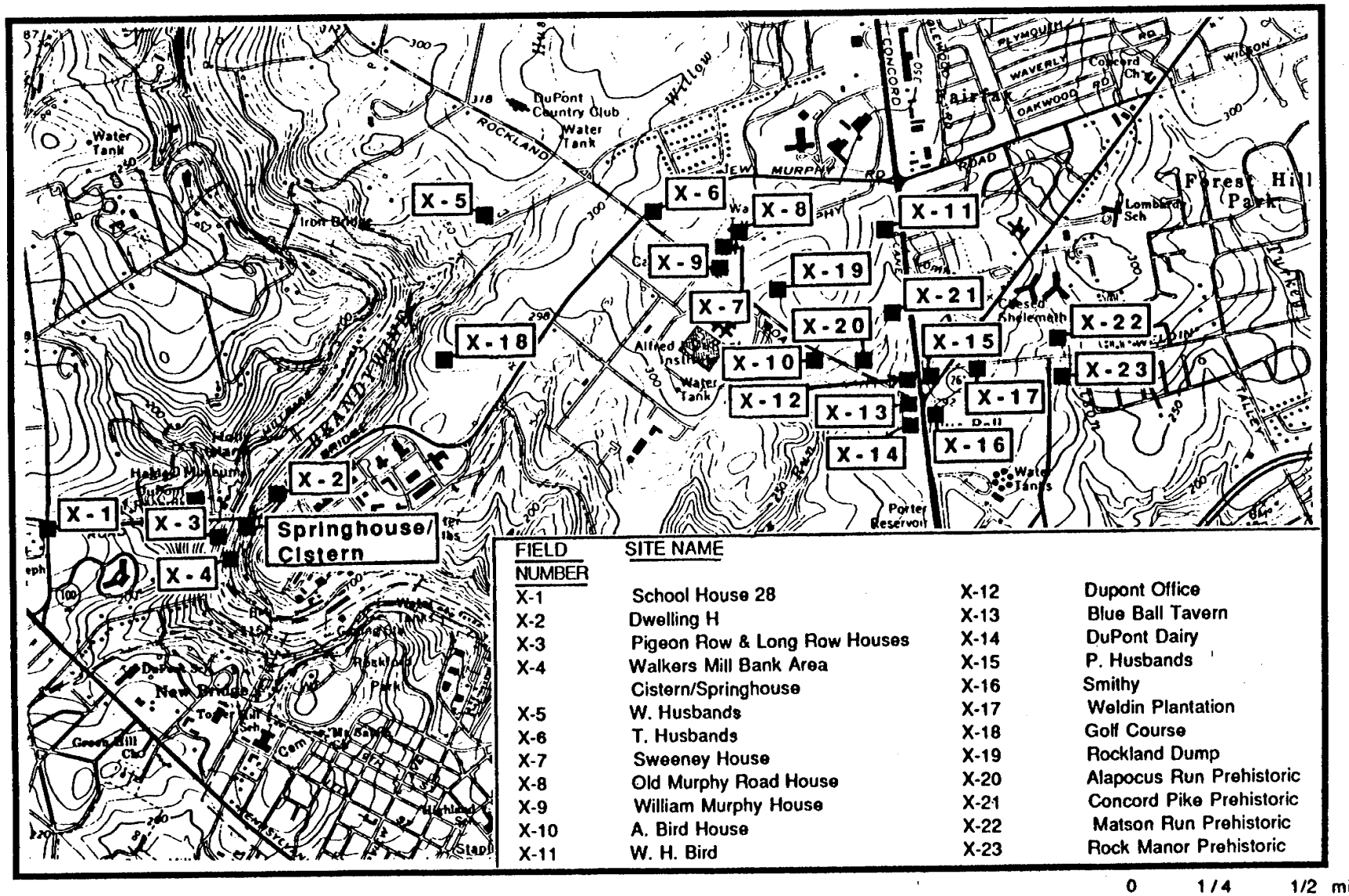
Background work only has also been recommended at the Blue Ball Tavern site, since test excavations have been completed there, but the archival research is cursory. At the remainder of the site, background work and test excavations have been provided for in the cost proposals. All of the sites are adjacent to or within National Register Districts which have been defined primarily on the basis of the architectural resources present within them.

No background work has been recommended to complete the necessary investigations for the prehistoric components at the Matson Run Site Area. The general background context for prehistoric sites has been adequately researched previously, and is less site specific than that required for historic sites.

A combined report on all of the research proposed in the attached proposals will be prepared together with the results of the survey phase for which an informal letter report has been prepared, in accordance with the scope of work for this project.

The amount of work required to complete adequate investigations at each site has been calculated rather carefully, based on previous experience in Delaware and elsewhere in the Middle Atlantic Region. If there are any questions regarding the proposals or the work proposed, please contact us and we will be glad to address them.

FIGURE 3
PORTION OF WILMINGTON NORTH 7.5' USGS QUADRANGLE
Showing Site Locations



FIELD NUMBER	SITE NAME		
X-1	School House 28	X-12	Dupont Office
X-2	Dwelling H	X-13	Blue Ball Tavern
X-3	Pigeon Row & Long Row Houses	X-14	DuPont Dairy
X-4	Walkers Mill Bank Area	X-15	P. Husbands
	Cistern/Springhouse	X-16	Smithy
X-5	W. Husbands	X-17	Weldin Plantation
X-6	T. Husbands	X-18	Golf Course
X-7	Sweeney House	X-19	Rockland Dump
X-8	Old Murphy Road House	X-20	Alapocus Run Prehistoric
X-9	William Murphy House	X-21	Concord Pike Prehistoric
X-10	A. Bird House	X-22	Matson Run Prehistoric
X-11	W. H. Bird	X-23	Rock Manor Prehistoric

Proposal for Phase II Background and Field Investigations
Row House Site Area
Field No. X3

Field investigations revealed the remains of several archeological features in this area which is located on the west side of Brandywine Creek and just south of the existing Route 141 Bridge. Remains of two foundations, a stone well cap, a concrete well or privy cap, a bottle dump, and several sizeable depressions whose foundations have been tentatively identified by reference to photographs and local informants as the "Lone Row House" and the "Pigeon Row House", and the other features are presumably related to them. In addition to those features, a series of test units between them and the existing bridge suggested that a considerable amount of fill had been placed in this area over an older surface. In order to evaluate and determine the extent and significance of the resources located in this area we are proposing additional background investigations and test excavations. If the results justify it a Determination of Eligibility will be prepared for this site.

The preliminary background research prepared for the Phase I survey work indicates that the documentary history of this location is complex. A series of overlapping property holdings were located here, although the details were not completely worked out in the Phase I work because of the complexity of the property documents. The structures mentioned above functioned as worker's housing, but it is possible that remains associated with an earlier Mill, Gilpin's Mill dating prior to 1813, are located in this area. Additional background research is proposed to help unravel the history of this property and the activities that took place there. Materials that may shed additional light on this have been identified in the documentary collections at the Hagley Foundation and other sources at the Delaware Archives will also be investigated. Fifteen days of background work is scheduled.

Field Investigations will be completed to confirm the identity of the foundations, determine whether or not the well and/or privy features contain significant archeological remains, evaluate the origin and function of the depressions, identity and evaluate any midden deposits associated with the occupations in the site area, and penetrate the fill covering the northern portion of this site area to determine if significant archeological remains are located there. All but the last mentioned activity will be accomplished with hand excavations carried out within a grid to be established in the site area, and using methods appropriate to the particular feature under investigation. Four-foot wide trenches will be excavated down the long axes of the two structure foundations to determine the condition and contents of any cellar fill that may be present within the foundation lines. Five-by-five-foot test pits will be placed behind and adjacent to the structures to identify midden deposits associated with the occupations, and the area around and within the well and privy(?) will be exposed to

evaluate those features. All soil horizons may be removed without screening, or sampled. The area between the foundations and the existing bridge is covered with a deep deposit of fill, identified during the survey. Sample areas will be exposed here using a backhoe supplied by the Delaware Department of Transportation under the supervision of the archeological supervisor. The fill will be removed to a depth just above the old intact soil horizon (identified as a surface containing coal during the survey phase) and the remainder of the fill will be removed by hand. Any features observed will be mapped and evaluated. Some sample excavations may be placed into features thus identified, if necessary to evaluate these features.

Proposal for Phase II Background Investigations
Keg Factory
Field No. X2 and X4

Investigations completed during the Phase I survey by Thunderbird Archeological Associates indicated that extensive archeological remains were located on the east side of the Brandywine both north and south of the existing Route 141 bridge. Copies of old plans examined at the Hagley Foundation indicated the presence of structures that were probably worker housing associated with Breck's Mill south of the present bridge approach, and a factory complex designated as "Keg, Woolen & Cotton Fact" on the late nineteenth century Hopkins map to the north. The field survey discovered an extensive complex of terraces, foundations, and other features associated with these occupations. It is clear that next step in a field evaluation of these archeological remains will be the preparation of an archeological base map of this area, followed by selective testing to determine the extent, integrity, and significance of the various components present in this site area. It is also clear that mapping and testing activities would be benefitted by additional information on the location and function of various site components, both evident and concealed, including the workers houses south of the existing bridge.

Because a wealth of documentary and diagrammatic information on this location is available at the Hagley Foundation and elsewhere in the area, we are proposing to take ten days and complete a thorough review of all the archival information available on this area. In addition, an archaeologist base map will be prepared by a Delaware Department of Transportation survey crew under the supervision of an archaeologist before a specific proposal for Phase II field investigations of this area is prepared. That proposal will be submitted as an addendum to the contract for this work. Resources available at the Hagley Foundation, the Historical Society of Delaware, and the Delaware State Archives will be reviewed to obtain specific information will be reviewed archeological components that were located here. This information will be used to prepare a set of priorities for Phase II field investigations and a proposal for that work will then be forwarded to be handled as an addendum to the contract that enables the background investigations. An additional five days is allocated to prepare a report on the results of the findings that will be included in the final report on this Phase II investigations. This procedure will insure that the most effective and economical use will be made of the time allocated for the field investigations.

A considerable amount of research has gone into the interpretation and partial reconstruction of the Dupont industrial complex activity that was being carried out in the industrial district here however, and a complete understanding of this activity cannot be achieved unless at least some measure of

preservation is given to the other industrial components present. If significant archaeological remains of this remaining industrial activity are present, then some effort to at least extract the data from them will be desirable, if they will be threatened by construction. This proposal represents a first step in evaluating these remains.

Proposal for Phase II Background and Field Investigations
T. Husbands Site:N546
Field No. X6

This site is located at the intersection of Route 141 ("New Murphy Road") and Rockland Road. A structure is shown here on the historic maps and a test trench placed during the survey showed a rubble deposit presumably associated with the structure. Background research and test excavations are proposed here to evaluate the extent, integrity and significance of archeological remains located here. Archival sources will be consulted to identify the owners and occupants of the property and to make an assessment of their position in the community. Documentation at the Hagley Foundation, The Delaware Historical Society, and the Delaware State Archives will be examined. Ten days of research time is proposed for this research. Fifty feet of four-foot-wide trench will be excavated in the area where the structure foundation is expected to define the limits of that feature. In addition, ten five-foot-by-five-foot test squares will be distributed in the back of the structure and on the north side of Route 141 where the barn and other service buildings appear to have been located. The purpose of these test units will be to locate midden deposits and other artifact bearing features associated with the occupation of this site. Ten days of field time for a crew of six has been allocated for this week.

Proposal for Phase II Background and Field Investigations
William Murphy House Site:N544
Field No. X9

Because of an illness in the house no field work was carried out at this structure during the survey phase. The structure appears on the Rhea and Price Map of 1849, and the architectural evaluation suggests that the house may have been built toward the beginning of the nineteenth century (Thompson 1985). Like the Sweeney House there is no apparent disturbance around this structure, and archeological remains in the form of midden, privies, etc. would be expected, related to the early occupation of the house. Additional background research is proposed to help fill out the historic context of the site, and field investigations are also proposed to identify and evaluate the archeological remains. Approximately ten five-foot-by-five-foot test units will be placed at the rear of the house to locate these remains. This work will be accomplished in five working days. This house is also a contributing structure to the proposed Nemours Historic District.

Proposal for Phase II Background and Field Investigations
Bird-Husbands Site
Field No. X10

The Bird-Husbands house is located on the south side of Rockland Road, east of the Dupont Institute. This house appears on historic maps and the architectural evaluation suggests that it dates from the early part of the nineteenth century, although it has been modified. There has been massive filling to the west of the house, but the backyard area, where privies and midden features would be expected, appears to be relatively undisturbed. A modern garage is present and a macadam parking area are also present. Additional background study is proposed to clarify the property history and to provide historic context. Ten five-foot-by-five-foot test units are proposed to identify and evaluate the integrity of the archeological remains at this site. The house is listed as a contributing structure to the proposed Nemours Historic District.

Proposal for Phase II Background Investigations
Blue Ball Tavern: N-542
Field No. X-13

Previous work has been completed at this location by Mid-Atlantic Archeological Research, Inc. (MAAR 1980). Testing revealed the presence of foundations and other features, which suggest that the site has sufficient integrity to return significant archaeological data. Therefore no additional investigations were carried out during the survey activities completed by Thunderbird Archeological Associates. The referenced report provides a chain of title and a very brief discussion of the documentary history of the property (MAAR 1980:II16). While the previous field work is sufficient to demonstrate the presence of intact archeological remains, the documentary study is too brief to adequately provide the historic context for the site. Accordingly, we are recommending that additional historical background research be completed in order to prepare a Determination of Eligibility statement that adheres to the current standards of the National Register of Historic Places.

Since the preliminary documentary work has been completed, five days is proposed to complete a detailed examination of the tavern licenses (the referenced report is based on a "spot check"), tax records, and other materials located at the Delaware State Archives in Dover and in the collections of the Hagley Foundation. This material will be used to provide a more thorough discussion of the historic context of the site location and to develop a statement of significance that includes a more detailed comparison between the history and archeology of this site and other similar contexts, such as the Rising Sun Tavern at Stanton (Thompson 1984).

The report for the work proposed here will consist of a revised Determination of Eligibility incorporating the results of previous field and background investigations and current archival research.

Proposal for Phase II Background and Field Investigations
Smithy Site
Field No. X16

The Rea and Price map indicates a "smithy" or blacksmith shop across the Concord Pike from the Blue Ball Tavern. This location is cultivated at the present time, but an intense concentration of artifacts was observed there during the survey phase investigations. The materials observed included domestic refuse, and it is likely that a domestic occupation adjoined the smithy, in a fashion similar to that observed at the Wilson-Slack site (Coleman et al. 1985). Additional background research is proposed to provide historic context for the site. Ten days of work at Delaware State Archives, The Delaware Historical Society, and Hagley Foundation will be completed. Field work is proposed to identify remains below the plowzone that may possess archeological integrity. Ten days of work by a crew of six with supervisor will be excavated. They will be distributed according to the distribution of surface materials, and may be modified to follow features encountered during the testing.

Proposal for Phase II Background Investigations
J.R. Weldin Plantation Site
Field No. X17

To the northeast of the Smithy Site, on Weldin Road, an extensive complex of ruins is located, including the foundations of several structures, stone fences, roads, etc. An archeological base map will be desirable to help guide the design of testing program, but, as in the case of the Keg Factory Site, more extensive background research will be helpful to identify and orient some of the more obvious features present on the site. Sources available at Delaware State Archives, Hagley Foundation, and The Delaware Historical Society will be examined to discover information about the organization and layout of this extensive domestic and agricultural site. After the background research is completed the map will be prepared by a Delaware Department of Transportation survey crew, under the direction of a supervising archeologist. A separate proposal for testing procedures will then be submitted, based on this work, to be completed as an addendum to the contract that supports this work.

This site will be of particular interest because it appears to represent a site representative of a wealthier farmer than some of the others in the study area. The artifact assemblages from this site will provide points of time within a single market area. After the background research is completed, a proposal to prepare the site map will be submitted as an addendum to the work proposed here.

Route 141 Extended
Proposal for Field Investigations
Prehistoric Components, Matson Run Resource Area

An extensive scatter of lithic materials was located just to the north of Weldin Road during the Phase I survey, designated Site X-22. Material recovered included cores, bifaces and flakes in sufficient amounts to suggest the possibility that there may be some undisturbed contexts present below the plow zone. In order to test for this possibility we propose to place and screen a series of two-and-a-half-foot-by-two-and-a-half-foot shovel tests across the main axes of the scatter to look for buried soil surfaces and/or features. Forty of these units will be disturbed across the surface of the site. Shovel tests to the west of this area to determine if significant contexts, and additional units will be placed in this area to determine if significant contexts are present. This location would likely be affected by any road construction in this area. Seven days field time for a crew of six has been allocated to the work at these two sites. No background work has been included since the prehistoric contexts are fairly well-controlled from the existing literature, and are less site-specific than the historic sites.

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Proposal for Phase II Field Investigations
Keg Factory Site

Introduction

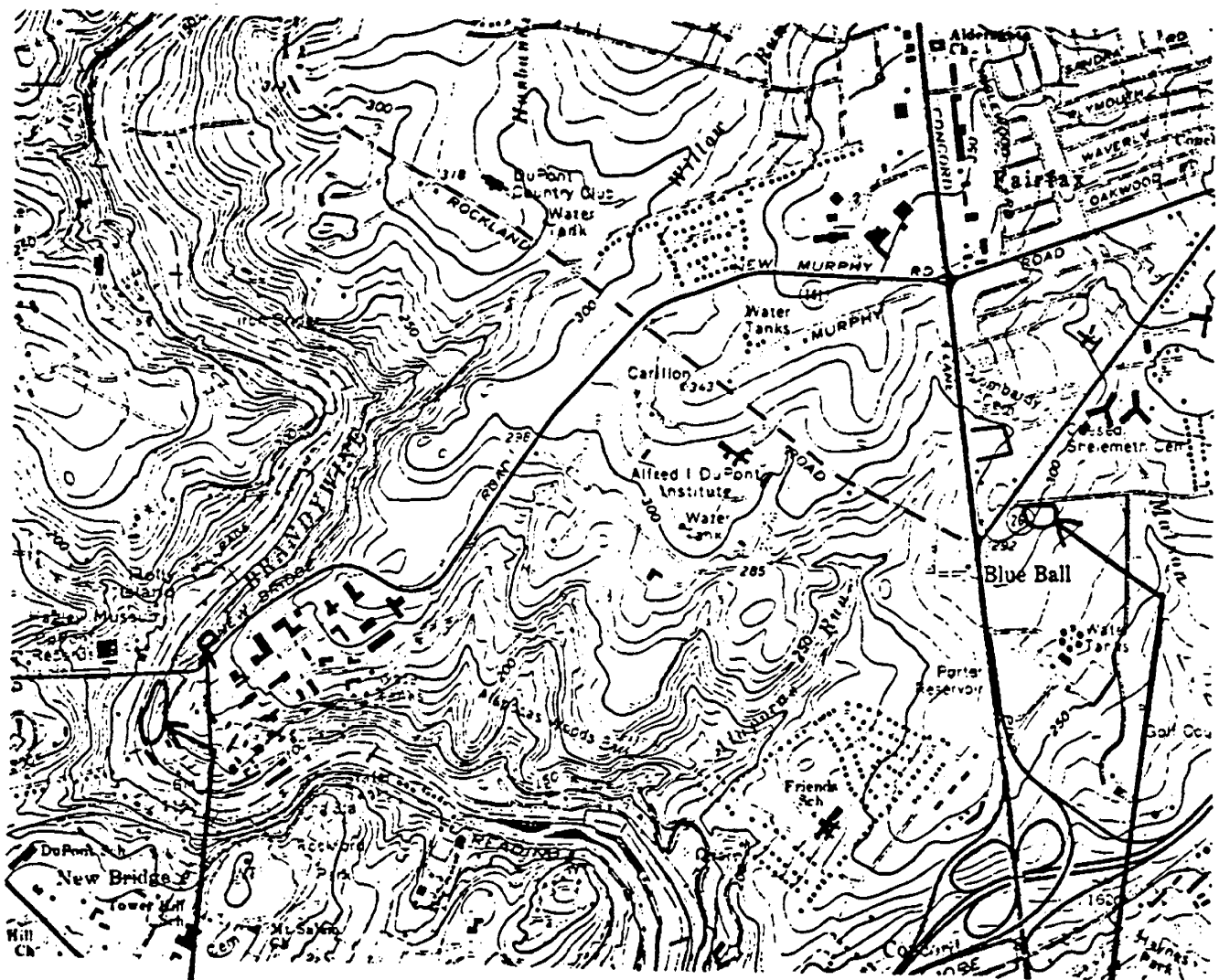
The original proposal for work at this site called for the preparation of a map of the evident, above-ground ruins, and the completion of the background research so that the proposal for the field work would have the benefit of that information. That work has been completed and this proposal is submitted as an addendum (modification) of the original contract, as called for in that document. A brief summary of the background research is presented first, concentrating on items that might directly pertain to the physical layout of the site, and a description of the proposed work is given next, together with a schedule-budget for the completion of the Phase II investigations.

Summary of the Background Research

In 1793, John Bird sells a tract of land on the east side of the Brandywine to William McClintock (S1:133[1]) who sells it, in turn, to John Way and Jacob Broom in 1794 (Mf3:251). This 130 acre tract includes the locations on the Brandywine where the Walker's Mill and the Keg Factory and Cotton Mill will be constructed, opposite the future site of E.I. du Pont's powder factory. In 1805 Way and Broom sell the property to Samuel Love for $4000 but reserve to themselves the right to erect a dam or dams, provided the dams do not continually flood the property sold (F3:216). The tax assessment for 1804-1805 shows a 130 acre tract for Love which includes a log house, stone barn, and a log shop (New Castle County Tax Assessment workbook), but there is no mention of a mill. Samuel Love sells a 92 3/4 acre portion of the tract to Caleb Kirk on November 9, 1812 (Q3:295), and the next day Kirk sells 48 acres, 34 perches of it to E.I. du Pont, "Manufacturer". This sale includes water rights that Kirk had purchased separately from Way and Broom, but it is not clear if the dam above Holly Island, near the northern boundary of this tract, had been constructed yet. The dam must have been built by 1815 when it was supplying water through a race to the cotton mills at Henry Clay Factory on the opposite side of the Brandywine[2].

By 1814 Walker's Mill had been built by Joseph Sims, a Philadelphia merchant, and Leased to John Siddall who was also manufacturing cotton cloth. This mill was located just downstream from the 48 acre tract that Kirk sold to E. I. du Pont and powered by a dam that spanned the Brandywine to

PROJECT LOCATION MAP



KEG FACTORY SITE

See Attachment I

J.R. WELDIN PLANTATION SITE

See Attachment II

the "Rokaby" mill, an old grist mill that Louis McLane and George Millikan had purchased from the heirs of Vincent Gilpin in 1813. That mill is likewise converted to the manufacture of cotton goods by the new owners. Shortly after this time, J. P. Fairlamb makes a map of the mills on the Brandywine for the "Brandywine Mill Seat Company" which shows all of the above mentioned mills and another one on the east side of the Brandywine, opposite the Clay Factory, served by a race from the dam above Holly Island. A rather detailed search of the secondary and primary documents[3] pertaining to the early history of the Du Pont mills failed to yield a positive date for the construction of mills on the east side of the Brandywine served by this dam, but by 1849 when the Rea and Price map is published a row of structures is shown in this location, and the 1852 tax assessment for E. I. du Pont & Company's property in *Brandywine* Hundred (in other words, specifically on the east side of the Brandywine) includes a 38 acre tract with six buildings, Keg Mill, and shops, and an adjacent (in the list) seven acre tract with six buildings, cotton mill and "double stables". Together these would make a 45 acre tract and are likely to be the properties of interest here.

A map of Brandywine Banks included in the 1868 Beers Atlas shows five buildings next to the road by the River from Walker's Mill and what is probably a mill building straddling the race at that point. Another building is shown to the east of the five along the road, and this configuration of structures in this location continues through the Hopkins Map(1881) and the late nineteenth century company plans where they are clearly labelled as "Dwellings". Neither documents, plans, or maps show anything in the neighborhood of the feature labelled "B" in the preliminary survey report[4] and on the plan accompanying this proposal and a particular effort was made to document this feature. Rent books, account books and several secondary research reports are available documenting the lives of the workers in the various du Pont industries, and by the last quarter of the nineteenth century information on the occupants of specific numbered dwelling units, including those mentioned here is available. This will allow a rather detailed comparison between archeological contexts and identified individuals and families.

Research Orientation

As indicated by the original proposal, a considerable amount of background data are available on this area. Feature locations from one of the more recent DuPont Company surveys (1904) and a preliminary field survey of features observed were traced onto the project plans and a consultation with the project engineer was completed to evaluate project

effects. With this information in hand, a plan for field investigations was formulated that would allow the assessment of the significance of archeological data relating to the nineteenth century industrial occupations and other unknown features that might be affected by construction. An evaluation of the road and immediately adjacent areas leading upstream from Walker's Mill is included to allow for the possiblity that access for heavy construction equipment along this route might have adverse effects on any resources that might be present. These resources may include remains of features and midden associated with the occupation of worker's housing in this area.

The area at the proposed new bridge crossing will be investigated, particularly the feature at B. Further upstream the structure foundation and adjacent yard area immediately next to the present alignment of Route 141 (at "H") on the enclosed map will also be investigated. This location includes documented worker's housing for DuPont worker's, and archaeological remains from this area may be important for additional interpretive value for the Hagley Museum, which owns the property.

Finally, it should be noted that all of the work proposed here is within existing or proposed National Register Historic Districts.

Proposed Research

Additional Background Research - Eight days of additional background research are scheduled to allow for the investigation of the Walker's Mill Property. Although the early history of the property, prior to the construction of Walker's Mill, is associated with the "Caleb Kirk" tract researched for this study, the property has a separate history during the nineteenth century and was not investigated previously. Since the expectation for significant archeological remains is greatest during this period some more detailed research will be called for to assist in the identification and evaluation of any siginificant resources that may be present.

Field Research - Fifteen days of field investigations are proposed. There are three general areas associated with this portion of the project area that require investigation and the approximately eighty three-foot-by-three-foot test units (or equivalent area) that can be completed in this time will be roughly allocated as follows: The road from Walker's Mill. This will be checked in case grading or other modifications become necessary to allow construction equipment access. It is roughly nine hundred and fifty feet from the mill to the present span of the McConnell Bridge, and if a unit were placed every 50 feet, approximately twenty would be required. Oral

tradition asserts that trash was disposed of between the road and the river in a kind of midden. Some of this would have been removed during floods, or "freshets", but it is possible that some of this remains. The actual distribution of the twenty units allocated for this part of the testing will be determined in the field, and some will be concentrated opposite known dwelling locations. If initial work indicates that erosion and scouring have removed any possiblity of midden remains along the river side of the road, the remaining units will be reallocated to other sections of this part of the project area.

The various alternatives under consideration for an additional span across the Brandywine will all affect the location of the foundation feature at "B" on the map. The equivalent of ten three-by-three units will be allocated to clear the surface around this feature and excavate sufficiently to identify the extent, integrity, and function of this feature. An additional thirty units are allocated to investigate the surrounding area that will be affected on both sides of the present span. These units will be used to identify and evaluate any additional archeological contexts associated with the Feature at "B". Since the historical sources investigated provide no specific indication for occupation in this location, it is possible that remains from the eighteenth century are present.

The final area to be investigated under this proposal is the structure foundation and adjacent area at "H" on the map. A total of twenty units are allocated for this investigation. The foundation is clear on the ground and is within 80 feet of the existing retaining wall, so any activitiy beyond the present curb line may affect resources associated with this building. For dwelling units near the river, trash disposal toward the river is reported, but this dwelling, apparently unit "235" in the company records[5], is a considerable distance upslope from the river, with several dwellings between it and the water, so it is possible that trash disposal and customary "backyard" service facilities such as privies were located toward the present position of Route 141. For this reason, the identification of such features will be the objective of this portion of the field research.

Laboratory Analysis - The laboratory analysis will include preliminary processing and analysis of the age, function , and economic indications of the artifacts asdsociated with the site. Ten days are allocated for this work and particular attention will be paid to analyzing materials that might be associated with the earliest occupations of the property, both at the worker's housing units, and at the location of Feature "B".

Report Preparation - A complete report of the research, comparable to those proposed for the other sites, will be completed. REcommendations for site significance and additional investigations will be included if appropriate.

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[1]The form for the reference to the New Castle County Property Records is the "docket", or book -- M3 -- followed by the "folio", or page number -- 563 -- and the date -- 1680. The early records are housed in the Delaware State Archives and more recent ones may be found in the City-County Building in Wilmington, Delaware.

[2]"A Mill Village on the Brandywine: Henry Clay Village During the Nineteenth Century", 1980, by William Sisson. Typescript, Research Manuscripts, Hagley Library.

[3]The various collections of Du Pont personal and company records from the nineteenth century in the Hagley Library total more than a million items, so a complete search was not feasible, but particular attention was paid to tax records, building inventories, etc.

[4]This is a curved brick foundation or retaining wall next to what was likely a spring.

[5]An alignment of the 1904 Hagley Yard plan overlaying the DelDOT project topographic map produced relatively good correspondence for features that remain more or less unchanged since then -- such as the "New Machine Shop" -- but in the area of the "Old Keg Factory Dwellings" it was necessary to rotate the old plan slightly in order to achieve the pattern of one building below the road and three above for the four buildings down slope from the foundation at "H". When this was down, building "235" appeared exactly at the position of the foundation shot in with the transit in the field.

Proposal for Phase II Field Investigations
J.R Weldin Plantation Site

Introduction

The original proposal for work at this site called for the preparation of a map of the evident, above-ground ruins, and the completion of the background research so that the proposal for the field work would have the benefit of that information. That work has been completed and this proposal is submitted as an addendum (modification) of the original contract, as called for in that document. A brief summary of the background research is presented first, concentrating on items that might directly pertain to the physical layout of the site, and a description of the proposed work is given next, together with a schedule-budget for the completion of the Phase II investigations.

Summary of the Background Research

The property that includes the Weldin Plantation site is first documented in a survey completed for Han[se] Peterson in 1680. The tract is called "Chesnut Hill" and includes approximately 103 acres (M2:563, 1680[1]). Peterson sells the tract to Cornelius Empson in 1700 and the latter leaves it to his son, Charles in his will dated 1710. The will specifies that Charles is to receive the "easterly part" of the tract, with housing and the cleared land. Where the house was located is not specifically indicated. In 1722 Charles older brother Ebenezer who is the executor of their father's will, sells the tract to Israel Peterson (G1:225), but there is no mention of buildings in the the transfer. Israel Peterson dies intestate, and his daughter Regina and her husband Joseph Mortonson acquire sole interest in the 100 acre property from her seven siblings in several deeds dated from 1749 to 1755. Joshua Mortonson receives the tract and the "dwelling house" in his father Joseph's will of 1771, and the following year his mother Regina transfers her share of the plantation to her son (F2:246, 1772). Joshua moves to the Northern Liberties, a district of Philadelphia, and sells the property to John Dickinson, the well-known "Philadelawarean" of the Revolutionary War period.

The fire blotter of the Insurance Company of North America indicates that Dickinson had held policies on the Weldin property and that it was occupied by tenants, William Little in 1796 and Daniel Chapman in 1804. The dwelling at the property is insured for $1000. Dickinson's daughter, Maria, receives the property, designated "Tract 1" in his will, which states

that it lies on the east side of the Concord Road (Will Q1:298, 1804-1807[2]). She also receives property on the west side of the Concord Road which includes the Blue Ball Tavern Site. Maria Dickinson marries Albanus C. Logan and his tax assessment for 1837 indicates that the property includes 150 acres with a stone house and log barn (Tax Assessment Workbook, Brandywine Hundred). In 1861 Maria Dickinson Logan leaves her farm, "Chesnut Hill" to her son, Dr. John D. Logan of Philadelphia, and at that time it includes 193 acres (Will Y1:84, 1860-61) and is occupied by a tenant, John Bradford. According to tax assessments and census records, Bradford appears to have lived on and farmed the property from 1849 to 1861. A year after he receives it, John D. Logan sells the "Chesnut Hill Plantation" to Jacob R. Weldin, whose land adjoins it on the east (P7:449, 1862).

Jacob R. Weldin married Hannah Talley, and a geneaology of the latter family indicates that Weldin's purchase of the tract was something of a gamble for the young farmer who bought the "impoverished" land for approximately $75 an acre. "The price looked small, but the farm looked large and dilapidated" (Talley 1899:178). It is stated that Jacob never regretted his decision, and he gradually established a large dairy operation. Tax assessments for J.R. Weldin for 1866 and 1865 list a stone house and frame barn for the property, and in 1885 the tax on his stock was over $1300. By 1881 the Hopkins Map shows "Chesnut Hill" by the "Jac. R. Weldin" residence and the Baist Atlas (1893) shows five frame structures for the plantation, two frame buildings and three frame barns/stables. The tax assessments for 1893-1897 also shows frame structures for the property. The property is clearly the same as that described previously, and the ruins that are presently located at the site suggest that the two residences were at least partially constructed of stone in accordance with the earlier descriptions. It is possible that the indications on the Baist Atlas and the tax assessments reflect the presence of siding or other frame covering on the stone buildings.

Jacob R. Weldin dies intestate in 1892 after turning the "impoverished" farm into a successful operation. Three children receive interests in the farm, J. Atwood Weldin, Thomas Talley Weldin, and Eliza Weldin, and the two brothers acquire their sister's interest from trustees after she is declared an "insane person" (C17:117), though other documents suggest that Eliza continued to live in her father's house until her death sometime before 1896. The two surviving brothers then divide the family farm of 200+ acre estate roughly in half, with J. Atwood receiving the "fine old commodius mansion with all the surrounding barn and outbuildings" (Talley 1899:207-208), as well as the original homestead to the east (C17:109, 1896).

J. Atwood continues to operate the dairy farm, and his tax assessment for 1905 includes a frame house and barn, and, in addition, a blacksmith and wheelwright shops, two frame tenant houses and stables. The latter buildings were located on the Concord Road at the Blue Ball corner according to J. Atwood's will (Will I1:233, 1914-1919). The St. John's River Development Company acquires the property from J. Atwood's son, Jacob R. Weldin, in 1934 (B39:104) according to the stipulation in the will that the property be sold ten years after his death. Since then the property has been transferred between numerous Florida corporations.

In summary, there is the possibility of occupation on the property as early as 1710 when Cornelius Empson's will indicates a house is present. Much of the remainder of the property was subject to surface inspection during the survey, and no indications of early eighteenth century occupation were observed so this early occupation may be present in the wooded area for which this proposal is being prepared. The same logic applies to the later eighteenth century occupations mentioned in Joseph Mortonson's will and in John Dickinson's insurance records. From the time Joshua Mortonson sells it to Dickinson until sometime after Jacob R. Weldin acquires the property it appears to have been occupied and worked by tenants, and this may account for its "dilapidated" condition when Jacob R. Weldin acquires it. It seems likely that the smaller of the two stone residence ruins presently found at the site is the stone house mentioned in the Fire Insurance Company of North America records, since it also seems likely that the larger stone ruin is the "fine old commodius mansion" mentioned in the Talley geneaology, and that it was built by Jacob R., though this is not documented. In any case, archeological contexts associated with the late eighteenth and early nineteenth century tenant occupations should be expected in the vicinity of one or both of these ruins, as well as remains from the later occupation.

Research Orientation

As indicated in the original proposal, occupation during the second half of the nineteenth century will reflect ownership and occupation by a successful farmer of better than average economic circumstances. Earlier nineteenth century occupations by tenants may be of more modest position, however, and the possibility for an early- to mid-eighteenth century occupation gives this site a potential for the exploration of both temporal and social range within a single site area. The field activities described below are designed to explore the site area for intact contexts that might contribute to the analysis of one or more of these archeological problems.

Proposed Research

Additional Background Research - Three days of additional background research has been scheduled to further identify and explore the tenant occupants of the site during the first half of the nineteenth century and to further develop documentation on Jacob R. Weldin's activities on the site during the second half of the nineteenth century.

Field Research - Ten days of field investigations are proposed. Aproximately fifty-five three-foot-by-three-foot test units can be excavated in this period. The area surrounding the house ruins has been targetted for the majority of the testing effort, in an effort to try to identify intact features that will relate to the major periods of occupation at the site. This area is shown on the accompanying map, and it may be observed that the area has been truncated to delete the segment of yard that the existing ruins imply was a service area for the barn. Use and maintenance of this area are likely to have eliminated or at least diminished the intact contexts in this area. The equivalent of forty three-by-three units will be placed in this area, emphasizing yard margins and transition zones where privy features and middens might be expected. The equivalent of five units has been set aside for preliminary investigation of the three wells indicated on the map, to evaluate their potential for returning significant archeological remains (no attempt to excavate these features is reasonable within the scope of a testing program). The equivalent of five units is set aside to attempt to examine the foundation ruins of the two (presumed) residences for potential data return and five units are allocated for looking at outlying areas and contingency.

Some flexibility will be allowed to the field superviser in the actual distribution of test excavations in order to respond to circumstances identified during the field work, and if circumstances allow, some preliminary investigation of the barn and (presumed) stable area will be carried out although the structures themselves are not expected to be particularly productive.

Laboratory Analysis - The laboratory analysis will include preliminary processing and analysis of the age, function, and economic indications of the artifacts associated with the site. Ten days are allocated for this work and particular attention will be paid to identifying materials that might indicate the presence of an eighteenth century occupation in the site area.

Report Preparation - a complete report of the research, comparable to those proposed for the other sites, will be completed. Recommendations for site significance and additional work will be included if appropriate.

[1]The form for the reference to the New Castle County Property Records is the "docket", or book -- M3 -- followed by the "folio", or page number -- 563 -- and the date -- 1680. The early records are housed in the Delaware State Archives and more recent ones may be found in the City-County Building in Wilmington, Delaware.

[2]The form of reference for wills is the same as that for Deeds, but the documents are from Probate Records.