

APPENDIX I
PROJECT PROPOSAL AND RESEARCH DESIGN

Project Proposal and Research Design

This proposal describes additional Phase I archaeological work to be carried out in conjunction with alignment selection for the proposed Route 13 highway project. Previous work accomplished under the existing agreement included preparation of maps of areas that were likely to contain large numbers of significant cultural resources (prehistoric archaeological sites, historic archaeological sites, and standing structures). These areas are located primarily along the major drainages which must be traversed by the highway and along the major transportation routes. Of the varied resources identified and predicted, the prehistoric sites are the most difficult for which to specify exact boundaries. Therefore, in consultation with the Delaware Department of Transportation staff, it was decided that additional information on exact site location boundaries (particularly for prehistoric archaeological sites, but also for historic sites) within the areas of greatest cultural resource potential would be useful in planning potential highway alignments.

The reasearch proposed here would seek to identify cultural resources within the highest sensitivity zones and determine their precise boundaries. Also, areas with no resources, would be delimited and recommended for possible construction. In this manner impact on cultural resources within the areas of their densest occurrence would be minimized.

Areas chosen for further study were locations within the project area where high sensitivity zones spanned most of the proposed highway corridor. Mapped areas with high potential for prehistoric sites were noted and also played an important role in determining areas for further study because these cultural resources tend to be the largest and hardest to define spatially without fieldwork. Each of the areas proposed for further work is listed below in their order of priority from highest to lowest.

1) **Appoquinimink Area** - Nineteen separate subareas within this area are noted as potential locations for further fieldwork. This area spans the entire alignment east of Noxontown Pond and it will be important to find an area of low site density to minimize impact on cultural resources. The north and south sides of the Appoquinimink will require the lowest amount of fieldwork because the number of known sites is high and because an earlier study of a sewer line right-of-way between Middletown and Odessa delimited site boundaries within the corridor on the north bank of the Appoquinimink. On the other hand, the Drawyer Creek drainage has many high probability zones and very little fieldwork to date.

2) **Blackbird Area** - This portion of the proposed alignment includes many high probability areas for prehistoric sites and

has very little fieldwork accomplished to date. Only three known sites are found within the area. The zone noted for research is quite large and spans the entire corridor. Fieldwork would be focused on site location survey of areas adjacent to the numerous bay/basin features that are present.

3) **Leipsc River Area** - Headlands adjacent to the Leipsc River are included in this area which spans most of the proposed highway corridor. Only two known sites are recorded for this section of the project area and fieldwork will be extensive.

4) **Double Run/Spring Creek Area** - Located at the southern terminus of the proposed wester alignment, this area has been extensively studied as a part of planning for an earlier proposed Dover-ByPass. Fieldwork will be minimal here.

5) **Little River/Pipe Elm Branch Area** - This area is located close to the southern terminus of the proposed eastern alignment and includes four known prehistoric sites. Because the area is rather large, fieldwork will include extensive pedestrian survey.

6) **Hughes Crossing Area** - This area spans the entire corridor along its western alignment north of Dover and has only two known sites within it.

7) **Derby Pond Area** - This small area spans the entire corridor near Dover and includes five known sites. Therefore, required fieldwork will be minimal.

8) **Chestnut Grove Area** - Another relatively small area, this proposed focus of research includes three known sites and should not require much fieldwork.

9) **Wyoming Lake Area** - Like many of the preceding areas, this area is relatively small. It spans the western alignment near Dover, and will require minimal fieldwork because there are several known sites in the area.

10) **Dyke and Muddy Branches Area** - Two subareas are included and this project area spans the eastern alignment north of Dover. Only two sites are known for the area and extensive fieldwork will be required.

11) **St. Georges Area** - Located in the extreme northern portion of the proposed project area, this area contains only one site and will require extensive fieldwork.

12) **Smyrna Area** - One of the larger study areas, it lies on the east side of the Smyrna town limits and includes the confluence of Duck and Mill Creeks and their tributaries. Land use is almost completely agricultural and only two sites are known; thus, extensive pedrestrian survey will be required.

The research proposed for the area noted above will include:

1) Field checking of previously noted sites to verify their existence and determine their exact boundaries using controlled surface collections and subsurface testing. Extensive soil augering will be carried out to determine the possibilities for buried landscapes and associated archaeological remains. This research will include both known prehistoric sites within the state inventory and standing structures and historic archaeological sites noted by the report on the earlier Phase I work within the corridor.

2) Areas with no known sites will be surveyed at a location/identification level to determine the presence of sites. Any sites located during this phase will have their boundaries and their integrity determined using the methods noted above.

It should be noted that the work proposed here is not a substitution for determinations of site eligibility for the National Register of Historic Places, although it will provide much useful data for later determinations of eligibility. Because one goal of the study is to provide a series of recommendations of potential construction areas that will have minimal impact on cultural resources, there will be more emphasis placed on determining areas where sites are not found.

In large areas to be studied such as Areas 1 and 2, some selected sampling might take place. However, complete location and identification surveys within the specified areas will be attempted. Although the areas are large in many cases, this complete coverage should not be too difficult to obtain because several areas already have existing site data and surveys carried out within them.

The expected results of the project would include a standard report detailing the investigations within each area. A standard archaeological site report would be completed for all sites investigated and maps of site boundaries would be prepared. Also, site forms would be filled out for all new sites discovered in the surveys. All artifacts would be washed and marked for accessioning in accordance with the procedures of the Island Field Museum.

A series of maps detailing the recommended construction areas with minimal cultural resource impact will also be prepared using map scales to be determined by DelDOT.

Finally, it should be noted that the research proposed here can be viewed as a test of the prehistoric predictive model used in the initial Phase I research. The final report will include and assessment of the model's accuracy and precision in light of the test results.