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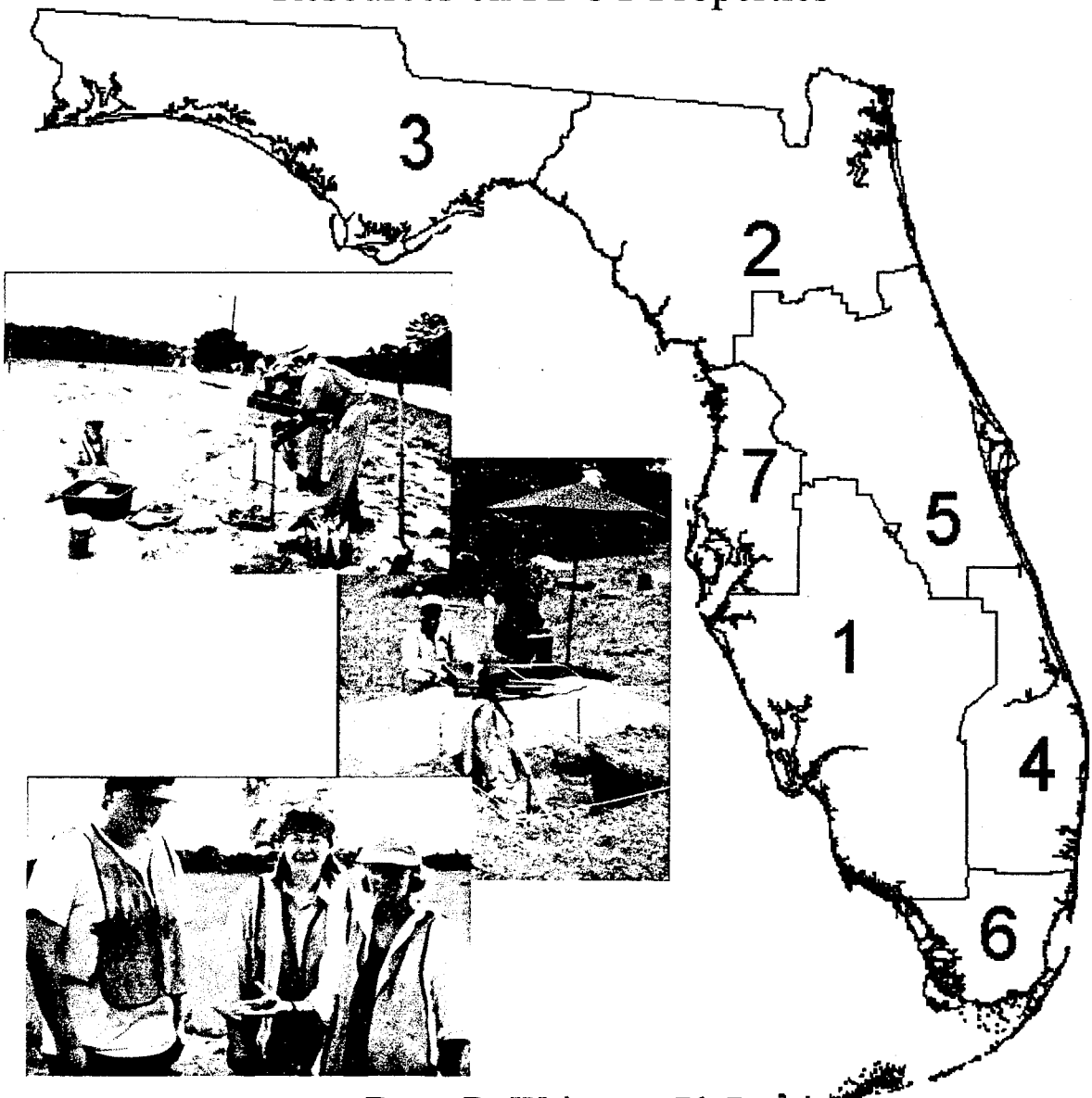
Archaeology at the Crossroads:
New Directions in Transportation Archaeology in Florida

Recommendations for the Management of Archaeological Resources on FDOT Properties



Brent R. Weisman, Ph.D
Principal Investigator
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Prepared for the Florida Department of Transportation

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Tampa, Florida
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Acknowledgments

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Summary

A two-year FDOT-funded archaeological study by the University of South Florida addressed statewide patterns of archaeological site significance and their implications for archaeological resource management on FDOT lands. Road right-of-ways in Florida contain approximately 22 percent of all recorded significant archaeological sites, a figure which clearly underscores FDOT's management responsibilities and indicates the potential importance of FDOT's archaeological contribution to the body of archaeological knowledge about Florida's past.

Specific accomplishments of the study include the development of an evaluation matrix for determining archaeological site significance in which sites are assigned overall point values based on measuring attributes in five categories of significance. The evaluation matrix provides a quantifiable means of determining archaeological site significance by comparing individual site attributes with those of associated sites in the same county in the categories of archaeological context and site type, among others. The evaluation matrix is presented as an improvement in the conventional means of significance determination using National Register criteria only because it factors in the specific nature of the site database of which the individual site is a part.

The study also employed GIS analysis to demonstrate that archaeological sites in right-of-ways are representative of site types and contexts present in the adjacent area, thereby indicating that generalizable, problem-oriented research can occur in right-of-way archaeology. Additionally, the project divided each FDOT district into settlement pattern areas, regions in which feasible and meaningful site location models can be developed. A total of 46 site location areas were identified statewide.

Six specific recommendations are proposed to guide the future development of FDOT archaeological policy. These are:

- develop programs of public information about FDOT archaeology,
- make FDOT archaeological reports more accessible to researchers,
- promote archaeological excavations on FDOT lands,
- develop predictive models and other intensive sampling procedures for survey phases,
- examine and evaluate current site discovery models, and
- develop a management plan for the assessment and preservation of significant sites already identified in right-of ways.

Finally, an archaeological plan is proposed, consisting of four steps. This plan is intended to guide archaeological survey and excavation conducted by FDOT by the FDOT districts. These steps are as follows:

- identify settlement patterns within each district,
- develop research designs for sampling within settlement pattern areas,
- conduct excavations of all sites within the sample area at variable levels of intensity, and
- develop predictive model for the entire settlement pattern area based on the results of sampling.

This introductory study is intended to accompany the detailed district report, and is meant to provide both an overview and conceptual framework for the in-depth analyses based on the specific archaeological data for each district.

Table of Contents

List of Tables

List of Figures

Introduction

The Florida Department of Transportation has been involved in Florida archaeology in a big way for more than 25 years, dating back to the federally mandated archaeological surveys resulting from the expansion of the interstate highway system. FDOT is the only state agency other than the SHPO's office to employ an archaeological staff, and is the only state agency to have long-term contractual relationships with private sector archaeological consulting firms. Relative to other agencies, FDOT appropriates a large budget every year for archaeological compliance activities, and pays for Phase III excavations every several years at an average cost per excavation of about $150,000.

Clearly, this reflects a substantial commitment by FDOT to Florida archaeology, both in terms of funding for fieldwork (all of which is done by private consultants) and of salaries, overhead, and other costs associated with their own archaeological staff.

FDOT Archaeology Can Have a Significant Impact on Florida Archaeology

The results of FDOT archaeology have been, at times, strikingly impressive. For example, in Hillsborough County, the home county for the University of South Florida in Tampa, 57 percent of all significant sites recorded in the 1970s were identified through FDOT archaeology, and at present more than one third of all significant sites are located in state road right-of-ways (see Figure 1).

Nearly one half of the significant sites identified in right-of-ways were discovered in the survey prior to the extension of I-75 around the eastern edge of Tampa. Included in these significant sites was the Paleoindian site of Harney Flats (Daniel and Wisenbaker 1984), one of the few base camps of this period yet identified and excavated in the southeastern United States (see Figure 2).

Figure 1: Distribution of Recorders of Significant Sites in the 1970s

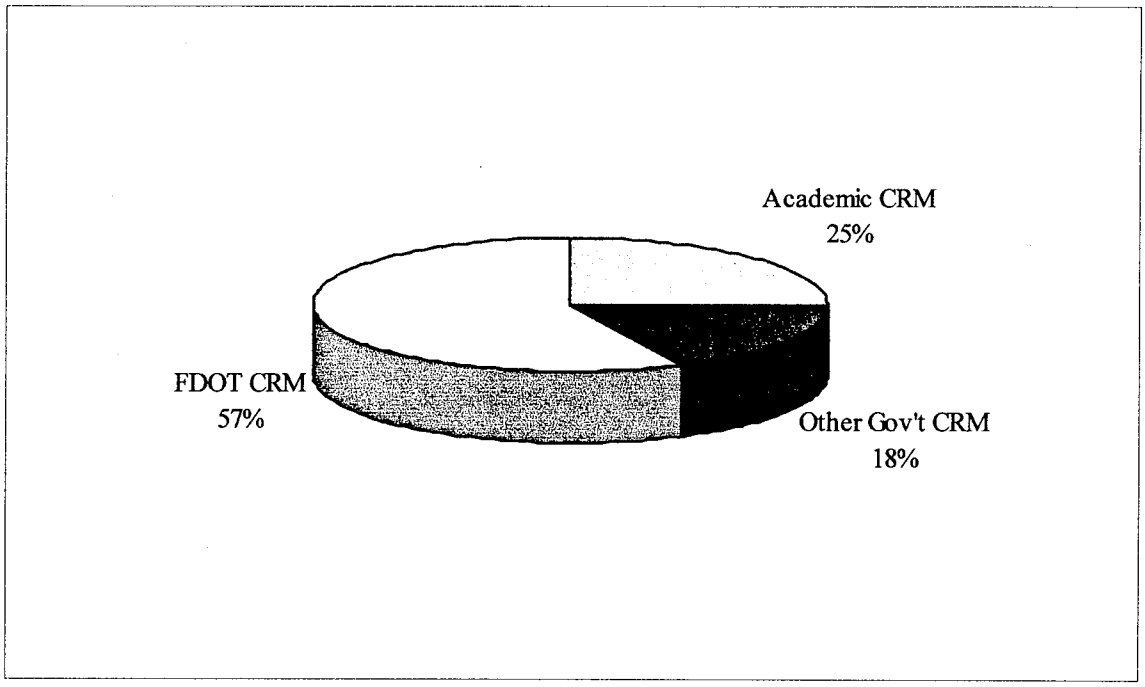
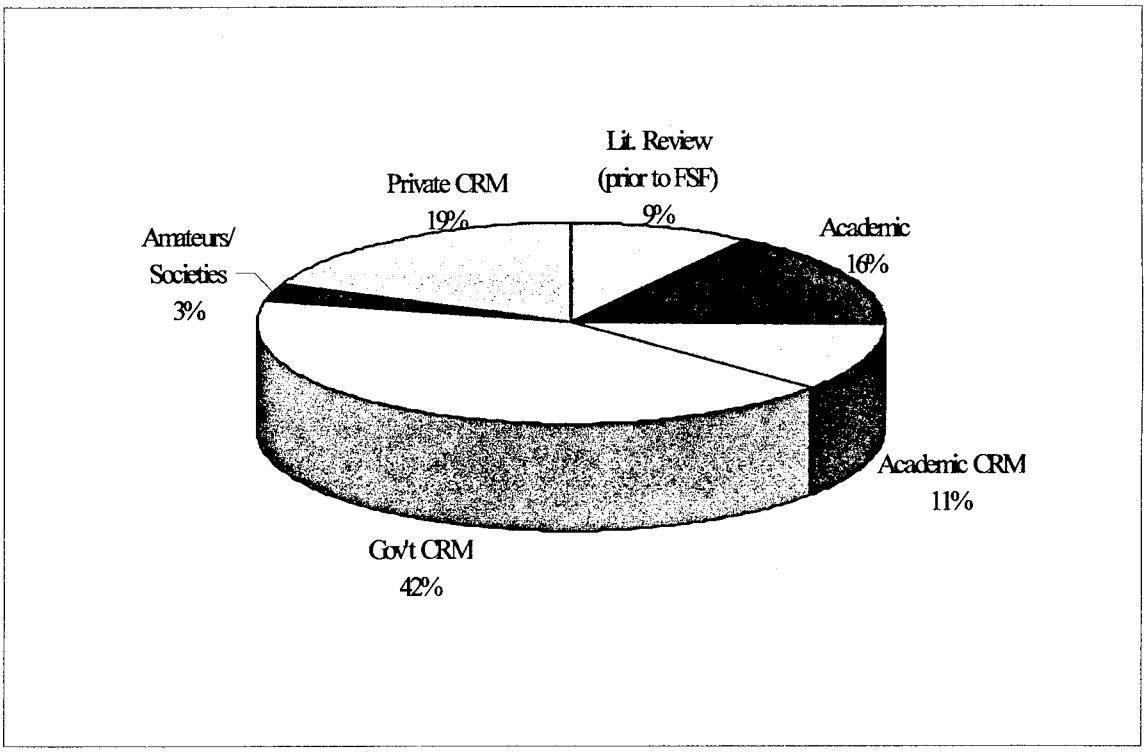


Figure 2: Harney Flats Site (8Hi507) (taken from Daniel and Wisenbaker 1984)

In Hillsborough County, and other counties as well, FDOT funded surveys clearly have had a positive effect on the archaeological database by systematically recording more sites in the Florida Site File (FSF), some of which are evaluated as significant. Figure 3 shows the percentage of significant sites reported to the FSF by the different categories or types of agencies or recorders in Hillsborough County. As successful as this process can be, there still can be a big difference between funding the physical activity of archaeological fieldwork and paying for archaeological knowledge. It does happen that prolonged archaeological surveys sometimes fail to find any archaeological sites. When sites are discovered, how confident can FDOT be that the significant sites have been properly evaluated?

Figure 3: Categories of Recorders of Significant Sites in Hillsborough County



This question relates both to method and concept. A significant site is one that meets certain criteria as demonstrated through testing. But like fish bones and shrimp mandibles falling through one-half inch mesh screens, so too will sites pass through the mesh of significance criteria if the testing interval is too large or unit size too small to capture their essential qualities. Further uncertainties arise after a site has been evaluated as significant and is recommended for excavation. Such a site might meet National Register criteria of significance, but its actual potential for contributing knowledge to Florida archaeology might be problematic given that archaeological knowledge is highly

contextualized according to culture areas and culture periods and thus is actually quite specific.

At the forefront of these uncertainties is the concern for avoiding redundancy. How is a Middle Archaic base camp in the North Peninsular Gulf Coast area likely to differ from one in the Central Gulf Coast region? Should both be excavated to find out? Is this site type truly one about which we know very little, or is it rather the case that their size and artifactual signature make it easy to repeatedly recognize and evaluate?

Because of its mandated responsibilities to Florida archaeology, FDOT was in a position to do much good. Indeed, by complying with the Advisory Council for Historic Preservation (ACHP) guidelines, following significance criteria as established in the National Register, and coordinating cultural resource activities with the SHPO's office, the basic blueprint for guiding FDOT archaeological management policy has long been in place. The time had come, however, for an assessment of these policies and practices, in an effort both to refine and improve FDOT's archaeological mandate.

In 1996, for the first time in the history of FDOT archaeology, funding was made available not strictly for compliance, but to conduct archaeological management research. The funding was awarded from a pool of research monies more typically reserved for studies of new herbicide applications for highway medians or biological impacts of highway construction. This research was intended to benefit FDOT by improving their practices and procedures regarding the totality of the archaeological process. Also setting this project apart from previous FDOT archaeology was that it was to be done in an academic setting, at the University of South Florida, not through private sector consulting.

Project Goals

Three areas in which we have focused our efforts include:

- developing new criteria of evaluating archaeological site significance,
- refining the use of probability models by investing in proactive surveys,
- proposing and defending the idea that state road right-of-ways can be viewed as archaeological research corridors rather than places where only archaeological compliance takes place.

Developing New Criteria of Archaeological Site Significance: The Evaluation Matrix

It became clear early in our study that to have significance determination rest solely on the relationship between individual archaeological sites and the criteria of National Register eligibility would ultimately limit the effectiveness of archaeology to contribute new information about the past. To do so removes the site from its context in its associated archaeological universe and continually recasts the significance relationship in terms of what is unknown, rather than what is known.

It presumes that archaeological data recovery continues to take place but that little is learned from it, a precarious and ironic position for contemporary archaeology to be in when the demands for accountability are rising to new heights. It implies that more is better, and that significance is ultimately unmeasurable. Developed in part to address these concerns, the state comprehensive historic preservation plan (Comp Plan) contextualized the actual information that results from archaeological study, and provided research questions to guide specific research designs in each of the defined archaeological contexts.

Although the research questions presented in the comprehensive plan are intended to operationalize the significance process by linking individual site attributes to generalized National Register criteria, again these questions are posed in the void as if they have no answers or that we cannot measure our efforts as we attempt to answer them. At the moment, there is no specific mechanism for linking current research results and questions and research designs contained in the Comp plan.

All of this suggested to us that significance evaluations as currently practiced reflected a static perspective that promoted the conduct of archaeological work but failed to be informed by the knowledge that resulted from such work. We thought that a dynamic approach to significance evaluations would make for more sound and effective management policy.

In particular, we hoped to develop a means to direct FDOT's archaeological efforts to those sites that might best contribute to filling gaps in archaeological knowledge, while ensuring Department compliance with the requirements of historic preservation law. We realized that this approach would require a reordering of the significance relationship. It could no longer be satisfactory for evaluation to occur by matching an individual site directly to NR criteria, even if this process was operationalized by means of the research questions identified in the Comp Plan.

We decided to develop a matrix for the evaluation of archaeological sites in which sites receive point values in various categories of attributes (some of which are ranked and

weighted), which cumulatively result in an overall score for the site. The recommended degree of further archaeological attention is determined by the site's total point value. Refer to Appendix 3 for an example of the blank evaluation matrix form.

In the evaluation matrix, archaeological sites are evaluated in 5 categories:

- General Categories of Significance
- Site Redundancy and Representation
- Ranking of Archaeological Contexts (here the site receives a point value ranked according to how frequently the context is represented in known sites in its county: lower points assigned for those contexts more frequently represented—see Appendix 1)
- Ownership (Private vs. Public)
- Ranking of Site Type (similar logic to ranking of archaeological contexts. Appendix 1 provides examples of how site type points are calculated on a county basis using data from FDOT District 5)

The total point value of a site is used to determine the level of further archaeological treatment. Figure 4 shows an example of the matrix scores for Marion County (in District 5) site types and contexts. The Decoding List for Site Type abbreviations used in Figure 4 appears in Appendix 4.

We have begun testing the matrix using random 10 percent samples of all recorded sites for individual counties (see District 5 and 2 reports and Hopper 1998).

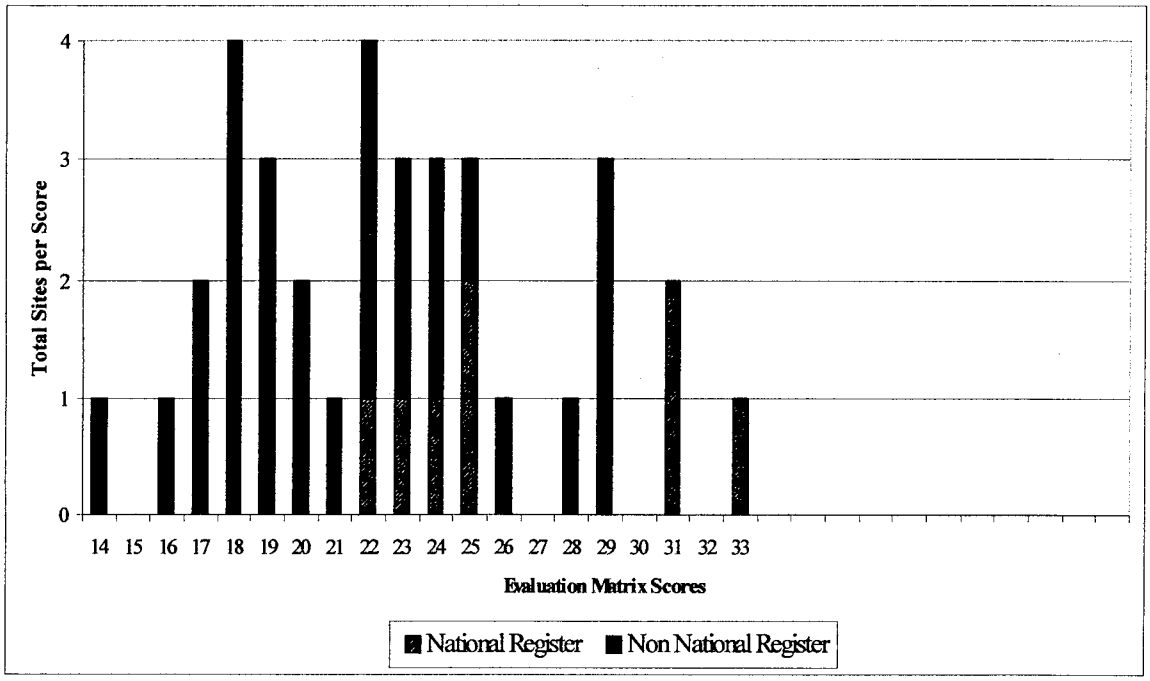
Figure 4: Marion County Evaluation Matrix Scores

Arch. Context	Sites	Rank
Unspecified	225	XXXX
Historic/American	191	1
Prehistoric	154	2
Archaic	132	3
North Central	96	4
East & Central	68	5
Seminole	13	6
Paleo	9	7
Deptford	8	8
Northwest	1	9
Glades	1	9
Spanish I & II	1	9
North	0	10
N Pen Gulf Coast	0	10
Safety Harbor	0	10
Fort Walton	0	10
Pensacola	0	10
British	0	10
French	0	10

Site Type	Sites	Rank
SCATTER	411	1
REFU	75	2
MDPL/MOUN	41	3
MIDD	29	4
CAMP	38	5
HABI	31	6
MDSH	27	7
HOUS/HOME	22	8
FORT	13	9
STIL	13	9
TOWN	12	10
MILLS	9	11
CIST/WELL	9	11
HEAR	7	12
PLAN	7	12
BLDG	7	12
INDU	5	13
CAVE	4	14
AGRI/FEIL	2	15
TURP	2	15
MILI	2	15
ROAD	2	16
BRID	1	16
MISS	1	16
CANA	1	16
NVST	1	16
SALT	0	16
ABOB	0	16
RAIL	0	16
RIDG/RING	0	16
LGTH	0	16
QUAR	0	16
WKER	0	16
WKSH	0	16
WHAR	0	16
WREC	0	16
UNKN/INDE	131	XXXX
MDBU	18	XXXX
BURP	3	XXXX
BURH	9	XXXX

One of the more interesting results thus far is the indication that archaeological sites either formally listed on the National Register (NR) or determined to be significant are not in many cases distinct or distinguishable from sites determined to be not significant or sites that remain unevaluated. Figure 5 demonstrates this problem using the Orange County matrix results as an example comparing National Register and non-National Register sites. For example, of the three sites receiving matrix scores of 25, only one has been judged to be significant.

Figure 5: Bar Graph of Orange County Evaluation Matrix



This hints at the arbitrary nature of the National Register process and thus reinforces the need for the matrix, but also shows that NR or significant sites, because their matrix values are not necessarily the highest, have in fact contributed to archaeological knowledge as measured by archaeological context and site type. Thus we begin to see that the evaluation matrix also reveals the process of redundancy.

One big management benefit of the evaluation matrix is that site scores can be added to the standard information about the site listed in the FSF, and can thus be given a spatial display in a GIS application. Planners, for instance, might first want to see the distribution of point values within their project boundaries; in fact, they may not want to know anything else about the archaeological sites in the project area except what they are supposed to do with them.

We should caution here that this represents an ideal state of affairs in which systematic survey data has been collected for the purpose of evaluation, sadly not the case for much of the information now contained in the Florida Site File.

Refining Site Location Models: The Need for Proactive Survey

Our second objective in the FDOT study is to develop refined procedures for discovering archaeological sites and evaluating them as effectively as possible in the field. This addresses the category of investigation usually referred to as Phase I survey. Can refined probability models be used to target representative areas for intensive testing, and thus reduce the need for survey in advance of every road project? The idea to intensively test high probability areas is appealing, particularly by tightening up the test intervals.

This should result in higher levels of site discovery and increased ability to evaluate sites at the earliest possible phase of field investigation. This approach also emphasizes survey for the purpose of site discovery rather than survey for the purpose of covering a piece of ground. The question is "where are the high probability areas?" Because existing site file data are in many cases inadequate for this purpose, developing reliable models will depend on proactive survey of road corridors within well-defined geographic, physiographic, ecological, or cultural areas smaller than county units.

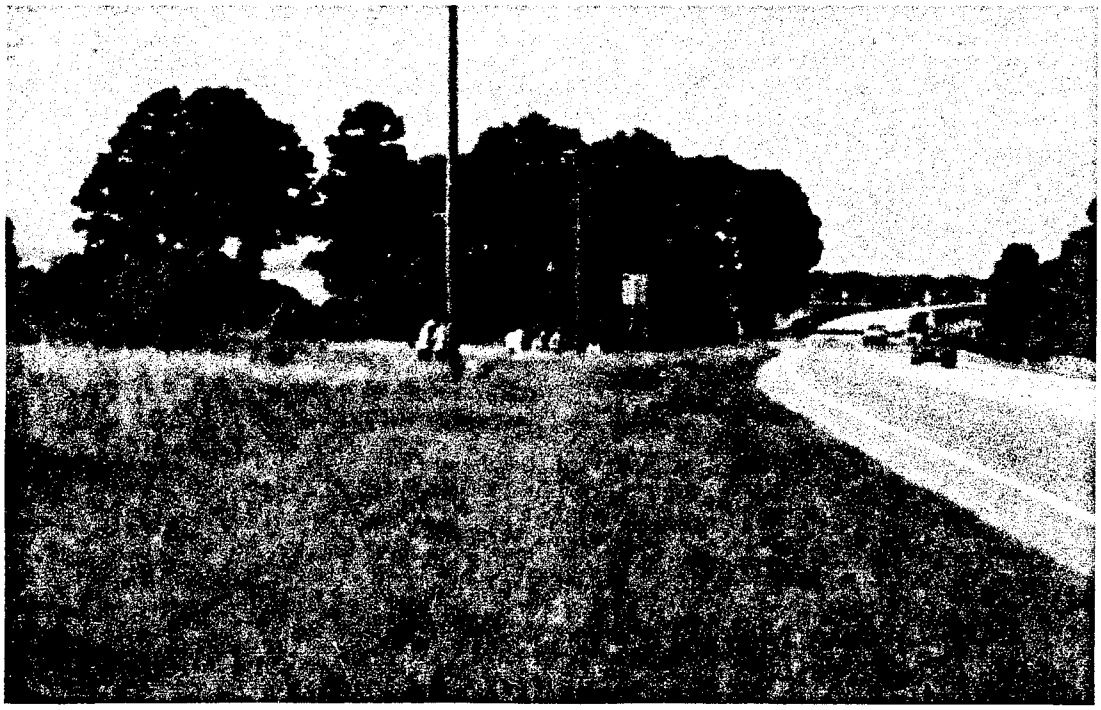
Using FDOT funding, we conducted archaeological field schools in 1997 and 1998 with the purpose of refining site location models for undersurveyed and poorly known areas of the state, focusing particularly on the central portion of Florida within District 5 (Figures 6 and 7) and District 1. Our study of patterns of significance for District 5 revealed anomalous data (discussed in the District reports and later in this report) that indicated lower frequencies of significant sites in right-of-ways than expected.

Minimally we are using the following criteria in development of the predictive model:

- ecotone location,
- distance to water,
- elevation, and
- social distance and settlement patterning (nexus).

Figure 6: The Sloans Ridge Site (8La2034) on SR 50 (view to the northeast)

Figure 7: The Harris Memorial Site (8La2033) on SR 19 (view to the south).



This last variable is very important and is generally lacking in other attempts to model site location. Many GIS site location probability models have been criticized for environmental determinism. In the particular case of central Florida, we have found that sites tend to exist in clusters, or what has been called the nexus model (Milanich 1978). In the 17th century the area of Polk, Osceola, Hardee, and Highlands counties was recognized as the polity of Jororo by the Spanish. Within Jororo, according to the priests, there were three discrete centers of population in a general north-south alignment. This provides a testable model of settlement patterning (Clagett 1995, 1996).

Of the ten corridors selected for survey in 1997, three contained significant archaeological sites. This 30 percent significance rate is much higher than the average 10 percent significance rate recorded for the counties in which our surveys took place (Table 1). Table 1 presents the data for the counties where the field school conducted research. Column one represents the total number of significant sites in or in contact with a State Road right-of-way. The second data column records the quantity of significant archaeological sites by county. The third column shows the percentage of significant sites in the right-of-way compared to all the significant sites. Column four contains the total recorded sites per county (including significant sites). Column five shows the percentage of total significant sites to total recorded sites per county. The sixth column shows the square miles in that county. The seventh column shows the number of recorded sites per 100 square mile per county. The eighth column demonstrates the number of significant sites per 100 square miles per county.

Table 1: Significant Sites per Total Site Recorded for Counties in 1997 Field School

County	RoW Sig	Sig Sites	RoW/ Sig	Total Sites	Sig/ T Sites	Square Miles	Sites per 100 mi2	Sig Sites per 100 mi2
Lake	3	46	6.5%	332	13.86%	996	33.33	4.62
Osceola	0	16	0.0%	184	8.70%	1350	13.63	1.19
Seminole	0	6	0.0%	115	5.22%	321	35.83	1.87
Sumter	4	10	40.0%	145	6.90%	561	25.85	1.78
Pasco	2	15	13.3%	478	3.1%	751	63.65	2.00
Total	9	93	9.7%*	1254	7.42%**	3979	31.52	2.34

* Survey Summary of RoW and Sig Sites
** Survey Summary of Sig Sites and Total Sites

Right-of-Ways as Archaeological Research Corridors

The third objective of our FDOT study is to demonstrate the value of road corridors as locations for archaeological research, rather than as places exclusively reserved for compliance. Road corridors are ready-made transects crosscutting both environmental and cultural areas and could be used readily in problem-oriented settlement pattern studies.

Once the factors of disturbance and accessibility have been accounted for, there is no compelling reason why an academic archaeologist could not conduct research in a road corridor, much as we are doing in our field schools. FDOT engineers might balk at this suggestion. But it must be acknowledged that archaeological sites in road corridors are by definition endangered and thus should be scheduled for excavation, while similar sites on adjacent public lands can be "banked" for preservation. Eventually this could mean that road corridors could become major contributors to archaeological knowledge in their own right. Immediate benefits to FDOT would be the improvement of probability models, for it is well known that in the absence of new knowledge (such as comes from research), probability models ultimately serve to reinforce themselves.

A graduate thesis (East 1998) used GIS to test the validity of using FDOT road corridors as representative research areas. Two systematically surveyed road corridors, I-75 in Hillsborough County and SR 44 in Citrus County, were compared statistically and intuitively to each respective surrounding area to determine if the archaeological resources in the corridor are representative of the entire area.

The research conducted for this project using GIS to analyze FDOT road corridor research potential is valuable in that it represents one of the first experimental steps in evaluating the possibility of designing statewide computerized site probability models for both site location prediction and current site management. Before models may be designed, the adequacy of the data must be assessed.

The FSF is in the final stages of a project funded through the FDOT ISTEA (Intermodel Surface Transportation Efficiency Act) program (*Extensions of Florida Culture Resources (GIS) Database March 1996-June 30, 1999*) to digitize all recorded archaeological sites with known locations and also all the reported archaeological surveys (Marion Smith, personal communication August 1998). The digital archaeological site maps used in this GIS project resulted from the FSF grant to digitize the archaeological sites. Access to these digital maps has improved the quality of the analysis because the best possible site location, size, and shape information is available. However, errors in recording still exist in these digital maps because they are based on subjective archaeological site plots on 7.5 minute USGS topographic quadrangles. A move toward using Global Positioning System (GPS) at new sites to record their location and dimensions would greatly improve the quality of spatial data. Field checking previously recorded sites and taking GPS readings would also be beneficial.

Based on the results of the descriptive statistics and nonparametric statistical tests, there is not a noticeable difference in distance to water between sites in the RoW and outside the RoW in the Hillsborough County research area surrounding the I-75 highway. Similar findings were recorded for the SR 44 project area in Citrus County, Although differences in the sizes of the corridors and in survey methods makes the two cases not strictly comparable. It is interesting that the density of culture types, contexts, and site types in the I-75 RoW transect is noticeably greater inside the transect compared to the 435 square kilometer (5 mile radius from I-75) project area. This demonstrates how potentially useful FDOT transects are for exploring settlement patterns through an area.

The implication of this thesis is that most research designs which address the previously mentioned archaeological universes could be carried out (or could have been carried out) in the road corridor. It would also then be true that any research design which specifically addresses right-of-way sites could potentially produce results that are generalizable to the larger universe.

Results

Statewide Patterns of Archaeological Site Significance

For the purposes of our study, we considered an archeological site to be significant if it was formally listed on the National Register of Historic Places, was considered eligible for nomination to the Register by the recorder or SHPO (as indicated on the Florida Site File form), was discussed in the Florida Comprehensive Historic Preservation Plan the "Comp" Plan), or was listed in the FSF as a burial site. From a management perspective, significance has two dimensions, spatial and contextual. A spatial analysis of significant sites includes both an examination of where sites are distributed across the landscape and what the relevant cultural and environmental factors are in determining local or regional settlement patterns and comparisons between districts of significant site frequencies. The spatial aspects of significance are presented in detail in the individual reports.

The fact that FDOT right-of-ways contain impressive numbers of significant sites emerges from a statewide analysis of patterns of significance (Table 2, statewide district comparisons). In Districts 2, 3, and 7, approximately one third of all significant sites are located in RoWs. In Districts 2 and 7, the high frequency of significant sites in RoWs has in part resulted from FDOT sponsored archaeological surveys, whereas in District 3 at least one of the major highways crosses a coastal area which contains a high density of significant archaeological sites. In these districts, the management of significant archaeological resources is a more urgent responsibility for FDOT, particularly because most of these sites have been substantially impacted by road construction. In Districts 2 and 7, site impacts due to highway construction since the late 1970s have been mitigated by Section 106 procedures, and have to some degree resulted in increased archaeological

knowledge. The I-75 extension around Tampa illustrates this point. In District 3, much highway construction occurred prior to the 1970s (and relatively little since), thus site impacts were not controlled by modern archaeological data recovery procedures.

Table 2: Descriptive Statistics for Archaeological Sites per FDOT District

District	RoW Sig	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ ST	Sites/ ST	Mi2	Site/ 100 Mi2	Sig/ 100 Mi2
District 1	46	400	2513	11.5%	15.9%	20.4%	13.4%	11,650	21.57	3.43
District 2	134	426	3684	31.5%	11.6%	21.7%	19.6%	11,857	31.07	3.59
District 3	135	406	6303	33.3%	6.4%	20.7%	33.6%	11,348	55.54	3.58
District 4	21	102	523	20.6%	19.5%	5.2%	2.8%	4,895	10.68	2.08
District 5	29	317	2618	9.1%	12.1%	16.2%	14.0%	8,467	30.92	3.74
District 6	17	123	976	13.8%	13.0%	6.3%	5.2%	4,000	24.40	3.15
District 7	58	186	2143	31.2%	8.7%	9.5%	11.4%	3,210	66.79	5.79
Total/Averages	440	1960	18,760	22.4%	10.4%	100%	100%	55,427	33.85	3.54

Statewide significance figures also indicate which Districts have lower than expected frequencies of significance in their RoWs, and thus suggest problems of undersurvey or underevaluation of significance. Statewide, an average of 3.54 significant sites occur per 100 square miles. Districts 2, 3, and 7, districts with the highest rates of significant sites in RoWs, individually have 3.59, 3.58, and 5.79 significant sites respectively per 100 square miles. District 1, with 3.43 significant sites per 100 square miles, has RoWs containing only 11.5 percent of total significant sites.

Likewise, Districts 5 and 6, where 3.74 and 3.15 significant sites occur per 100 square miles, indicate significance figures in their RoWs of 9.1 and 13.5 percent. The low figure for District 5 is particularly problematic given the extensive road network and the overall richness of the archaeological record. Because overall site numbers and the average rate of significance are not low for the district (see Appendix 2, all districts broken down into counties), the problem would seem to be one of underevaluation of archaeological sites discovered in road surveys. This is a case where the development of targeted survey areas based on probability models, intensive sampling techniques, and the application of the Evaluation Matrix would certainly result in higher rates of significance and ultimately a stronger FDOT contribution to the archaeology of the region. The need to produce more information about the rates and circumstances of significance in District 5 was the major reason why we focused our archaeological field efforts there during this study.

The second aspect of significance concerns the patterning of sites into categories of archaeological contexts. Archaeological contexts (more broadly referred to in the Comp

Plan as historical contexts) are the thematic categories of knowledge to which specific archaeological data contribute, the framework of knowledge built upon the specific components of individual archaeological sites. What we know about the past is in large measure determined by the kinds of questions we ask, what we want to know. The unit of analysis for framing these questions is the archaeological context, and it is by this means that the contexts articulate with the National Register criteria of significance and the evaluation process. Archaeological contexts in Florida are temporal, cultural, and geographical, and reflect more an after-the-fact process to categorize existing site information than a true research design.

The first explicit presentation of archaeological contexts was in the Comprehensive Historic Preservation Plan, developed in the late 1980s and early 1990s, based largely on the space-time framework and cultural categories published in 1980 (Milanich and Fairbanks 1980), which in turn was a refinement of a framework of Florida archaeology first proposed in the 1940s (Goggin 1947, 1948). Ideally, the contexts should be guides for archaeological research design, with the investigator working in a certain region first consulting the Comp Plan for relevant research questions and an assessment of current knowledge. Therefore, all archaeological investigations should produce information that directly contributes to knowledge about a known context, or perhaps cumulatively with the results of similar excavations suggest that currently defined contexts are inadequate to help make sense of the specific archaeological record. If properly done, this latter result should be considered a constructive outcome of the process, not a shortcoming.

A periodic and systematic evaluation of contexts present within a district should reveal which contexts have received relatively little attention and might further indicate the need to define new contexts for the study of problematic archaeological remains. This is the true research process, going into the unknown. If FDOT was to adopt a policy of actively sponsoring investigations at sites with poorly known or undefined contexts, the knowledge dividends likely would be high and the redundancy of effort minimal.

This approach presumes that vague or problematic context determinations have been arrived at despite the best efforts of the investigator to fit the site or its components into existing context categories. There are, in fact, no "unspecified" or "undetermined"context categories described in the Comp Plan. The "prehistoric"and "unspecified"categories exist as options only the Florida Site File form, where they serve as a catch-all categories for all sites that cannot be otherwise classified. Because these categories essentially mean the same thing from a management perspective, through the rest of this report they will be grouped together for convenience. These site file categories are necessary of course, because many times site records have been completed by staff based on incomplete or even anecdotal information, operating from the premise that some information, however inadequate, is better than none. This was particularly true for the earliest sites recorded in the 1950s and 1960s, many of which were taken directly from the literature of Moore, Wyman, and the other early Florida archaeologists without benefit of revisits.

At first glance, it seems logical that fewer sites should be entering the site file in the modern era in the unspecified categories. However, our analysis indicates that at least 50 percent of the sites recorded statewide in the last five to ten years (many by CRM firms) are listed with unspecified contexts. This indicates several things. First, due to the generally more intensive mandated survey efforts of recent years, archaeologists might be encountering types of sites difficult to classify because the sites lack diagnostic artifacts or features. These types of sites simply would have been ignored or undiscovered in pre-CRM archaeology. Some of this problem might be rectified if the investigators adopt a settlement pattern approach, rather than focusing on matching single sites to external criteria. However, if archaeological sites actually encountered in survey resist classification into definable archaeological contexts, refined or expanded definitions of the contexts might be in order.

Statewide, the single most frequently recorded context category is Prehistoric Unspecified. Beyond the fact that this hinders responsible attempts at archaeological resource management by all agencies involved, there are additional implications for the future conduct of archaeological research in all districts. One of the first tasks confronting the archeological manager is to determine why this is the case. The first step is to examine Florida Site File records on the county level. It might be the case that many site records are old, dating well prior to the Comp Plan, and that relatively few sites have been added by recent surveys. This situation would call for a reassessment of known sites, beginning first with a scrutiny of the paper files and then moving into selected site revisits and testing. Such an approach has been proposed for Alachua County in our District 2 report.

However, it might also be the case that recent archaeological surveys have also failed in assigning sites (or components thereof) to categories other than Prehistoric Unspecified. This might in some few cases reflect lack of training or experience on the part of the archaeologist or perhaps a philosophical outlook of extreme caution. However, it might be that the known and discoverable archaeological attributes of the site simply resist classification into Comp Plan contexts. Possibly artifacts are abundant but diagnostics are absent, or possibly the role of the site in the overall settlement pattern is uncertain and does not conform to expectations for a particular context. Whatever the case, if it appears that a number of sites in the Prehistoric Unspecified category are similar to each other and show some predictable patterning between them, then further research must be undertaken to clarify their definition. One thrust of such research must be to archaeologically link the unspecified sites to known archaeological contexts. This could be accomplished using a combination of broad scale survey and more intensive stratigraphic testing to look for correlations between sites of different types. An appropriate scale of analysis for this kind of study would be the settlement pattern area as defined and described in our individual district reports.

The dominance of the Prehistoric Unspecified context category presents a challenge to archaeological resource managers statewide. If further study indeed reveals groups of

sites with similar attributes within the unspecified category, new research directions should follow. Ideally this research should be coordinated at the state level and should specifically focus on refining and revising the Comp Plan contexts. It is our impression that this document at present is underutilized and has not achieved its intended purpose largely because it is ignored by researchers. It should be remembered at this point that the contexts are important because they provide the conceptual framework for the determination of significance. Any attempt to assess overall patterns of archaeological significance within any particular management domain (such as an FDOT district) must begin with a critical appraisal of how well the known contexts for the region actually reflect the archaeological record. If the contexts are telling us that a substantial portion of the known archaeological record cannot provide the basic data necessary to enable its classification, then the defined contexts do not adequately fit the archaeological record, we have investigated the archaeological record improperly or have attempted to comprehend it at the wrong scale of analysis, or it is simply not meaningful. All but the last concern can be addressed through further archaeology.

A related concern is the issue of site type. Unlike context, site type itself does not underlie the significance process. However, like context, there is a concern for redundancy of site type from the standpoint of the management of significant resources. There is also the concern for adequacy of recording, as was discussed above for context, and the same caveats and problems apply. The determination of site type plays an important part in the development of our Evaluation Matrix as described earlier in this report and in each of the district reports (see Appendix 1). Our research indicates that the most frequently recorded composite category of site type statewide is the "scatter." Scatter sites can be archaeologically significant (and indeed some are recognized as such), but the question remains as to whether or not the frequency of scatters reflects reality, imprecise recording, or inadequate field assessment.

In one sense, scatters might be expected to be the most common site type because they reflect a generalized level of human activity that is most likely to crosscut cultural areas and persist through time. On the other hand, because scatters by definition have an identifiable surface manifestation but lack association with an observable cultural feature such as a mound, the tendency of the investigator might be to record them quickly based on surficial evidence. If site types represent nodes of behavior, then scatters are only in the most general way analytically comparable to site types such as burial mounds and shell mounds. It is more likely the case that the archaeological manifestation recognized as "scatter" in fact contains much variability, variability that is rarely further explored because excavations of such sites are few. A positive example of the kinds of results that such excavations can produce comes from recent work at a right-of-way site in Lafayette County (Mitchell and Austin 1998).

Are significant sites representative of the archaeological universe, or are they selected from a subsample of sites with larger or more readily identifiable attributes? If the latter is the case, then significant sites will continue to reflect what is already known about the

archaeological record and will bias our knowledge toward that subset of the record that is better known. The cycle continues as the attributes of the better known sites become the criteria of significance for future evaluations.

We argue in the district reports that archaeological significance is a concept only relevant and applicable on the level of the settlement pattern area, particularly if one of the goals of the significance process is to produce information about a representative sample of the archaeological record. In the absence of the settlement pattern approach, substantial portions of the archaeological record will be systematically excluded from significance consideration. Criteria and expectations based on large coastal shell mounds cannot be applied to diffuse low density sites that characterize some interior areas, yet the latter cannot be written off in entirety if one hopes to understand the broad range of aboriginal cultural adaptations. This is why it is important to refine site location models for each district and to encourage further archaeological surveys similar to our archaeological field school efforts.

Recommendations

We conclude this introductory report by outlining six specific recommendations to guide future FDOT archaeological policy. These recommendations directly result from our two-year study, some resulting from methodological problems encountered in attempting to compile the vast amount of necessary data, some resulting from first hand experience in designing and implementing effective field survey strategies. The underlying premise for all recommendations (and indeed for the entire study) is that FDOT desires to maximize its contribution to Florida archaeology by allocating funding and effort in the most effective manner possible.

1. Develop Programs of Public Information About FDOT Archaeology

The findings of our study indicate that FDOT is, has been, and will be deeply involved in Florida archaeology. In three FDOT districts, one third or more of the currently recognized significant sites are in road right-of-ways. Many of these sites have been identified in FDOT surveys, and have been excavated to some extent prior to road construction. Although technical compliance with Section 106 procedures are routinely achieved in FDOT archaeology, the public remains woefully uninformed about the agency's contribution to the knowledge of Florida's past. This is particularly regrettable in light of the amount of money expended by FDOT annually to fund archaeology. Specifically, the following efforts are recommended:

Develop a Plan to Encourage Public Involvement in Archaeological Excavations

Highway archaeology is ready made for encouraging greater public involvement in archaeology. This objective of public archaeology has been embraced by the archaeological community at large and supported at the national level by the Society for American Archaeology, and would enhance FDOT's image with the public. Highway sites are accessible and convenient, easy to find, and are immediately relevant to members of the local community because they exist in familiar territory, part of the community's everyday living experience.

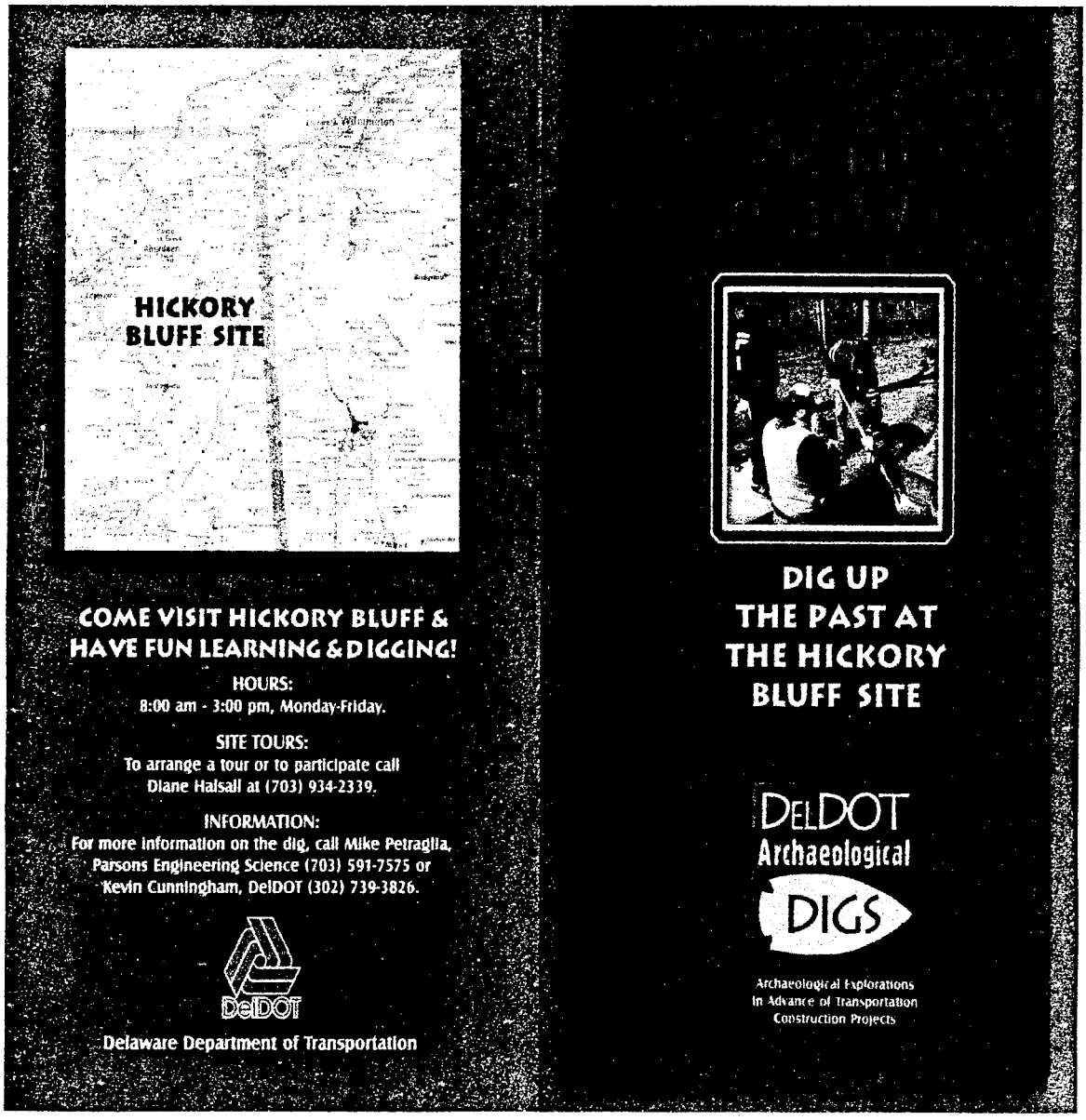
DelDOT has an aggressive program of public archaeology with its "Invites You to Explore the Past" program (Figure 8, DelDOT brochure, front and back scanned in), which could serve as a model for the contractual and legal structure necessary to make such a program work. Clearly these programs are not after-the-fact or spontaneous, but require considerable up-front planning and are built into the research design from the start. The DelDOT program encourages volunteer participation in the excavations as well as visitation.

Develop Roadside Interpretation of Significant Archaeological Resources

Heritage tourism has become big business within the last decade, and has increasingly become the subject of studies and initiatives on all governmental levels from local to federal. In Florida, state roads cross or are close to hundreds of archaeologically significant sites, virtually all of which lack any public interpretation. Further, in most of the areas where these significant sites occur, there are no venues for the outdoor public interpretation of local archaeological resources. We recommend a statewide study to identify and assess significant archaeological sites in each district that have potential to support public interpretation in the form of a roadside kiosk or exhibit panel. As examples, the following sites come readily to mind as worthy of consideration:

- District 1
  - Ortona canal on SR 78, Glades County. Associated with the Ortona Mounds earthwork complex.
  - Okeechobee Battlefield on US 441 in Okeechobee County, the scene of a pitched battle between the Seminole Indians and U.S. troops during the Second Seminole War.
  - Whitaker Bayou prehistoric midden on US 41 in Sarasota, an extensive prehistoric shell midden easily seen from a major highway.

Figure 8: DelDOT Brochure



- District 6
  - the "Goggin site" on Upper Matecumbe Key, Monroe County. A rich Glades culture midden close to an actively maintained FDOT roadside park.
- District 7
  - Harney Flats Paleoindian site on US 301, Hillsborough County. Large scale excavations of the site were conducted prior to the I-75 extension around Tampa.

Produce Brochures Featuring FDOT Archaeology

In our experience, even limited archaeological survey and testing in right-of-ways draws numbers of curious onlookers, many of whom are willing to share information about local archaeology and also enjoy the opportunity to ask questions of rarely accessible archaeologists. For this purpose, we distribute booklets and brochures about Florida archaeology developed by the Florida Anthropological Society, and of course take the time to verbally promote the value of FDOT archaeology. However, a more lasting and effective approach would be for FDOT to develop its own archaeological literature, which could include site or locally specific information as well as more general information about Florida archaeology and FDOT's role.

2. Make FDOT Archaeological Reports More Accessible to Researchers

Related to the need for FDOT to better inform the general public about its archaeological efforts is the equal need to make the technical archaeological research reports more accessible to the scholars or students who might wish to use them. This is the familiar problem of access to the so-called gray literature that continues to plague cultural resources management. Without even considering the difficulty of obtaining technical reports that are known to exist, the problem of determining what areas have been surveyed or excavated and the current status of the project report can at times be formidable and often winds circuitously through the Florida Site File. In the age of electronic information, it seems feasible to have an FDOT archaeology web page that, minimally, would list and summarize current projects and provide points of contact for further information.

We also recommend that FDOT cooperate with the Florida Anthropological Society to publish an annual index of its gray literature reports in *The Florida Anthropologist.*

FDOT could also make a major contribution to Florida archaeology by producing a series of regional synthesis reports, each based on integrating survey and excavation results from individual districts which address major problems or questions of archeological

concern. It has been argued that regional syntheses are the most valuable level of archaeological publication because they address the level at which most archaeologists work.

3. Promote Archaeological Excavations on FDOT-controlled Lands

By this we do not mean compliance-driven Phase I archaeological site surveys (more on this later) but rather test unit or block excavations of site deposits. FDOT is not a preservation agency and should, we argue, view all archaeological resources under its jurisdiction as endangered to a greater or lesser degree. Prioritized excavations that follow from archaeological research designs should be encouraged at every opportunity, with the understanding that excavation represents the wisest use of the resource. In this perspective it is likewise understood that FDOT lands exist as a subset of lands controlled by other governmental agencies or the private sector, and that the archaeological resources on FDOT lands comprise a representative sample of the surrounding archaeological universe. Thus, given the mandate and mission of many government land managing agencies to protect and preserve natural and cultural resources, the most appropriate role for FDOT is to encourage utilization of its resources to provide information and knowledge to justify preservation efforts elsewhere. A common analogy holds that archaeological sites on state lands are like deposits in the bank, only to be withdrawn under the most compelling of circumstances. In this view, archaeological sites on FDOT lands can be considered withdrawals, allowing the rest of the investment to remain intact.

Clearly, such an approach cannot be accomplished solely through compliance archaeology, although, as we present in the district reports, if compliance archaeology follows from the application of the Evaluation Matrix its contribution can be considerable. However, for this objective to be fully implemented, partnerships with academic archaeologists based in universities or museums must be created. A partnership need not directly imply complete financial sponsorship on the part of FDOT, but instead perhaps in-kind or matching support for grants or other incentives. Universities and FDOT districts could partner to apply for appropriate federal funds from a variety of sources.

At present, progress on this initiative is hindered in part by the misperception of many research archaeologists that important, research-driven archaeology cannot occur in the narrow transects provided by road corridors, which often have been disturbed or impacted to some degree. We suggest, on the contrary, that road corridors provide excellent opportunities as sampling transects, and can be used both to test broad scale ideas about settlement patterning and to intensively excavate sites of different types or contexts within settlement pattern areas.

A further benefit of university involvement is the opportunity to train archaeology students in the practices of transportation archaeology. So trained, these students will

eventually enter the archaeological workplace (perhaps even at FDOT) with an enhanced understanding of the complexity of archaeological resource management in road settings, and the importance of this work. In our two field seasons (summers of 1997 and 1998) we trained 25 students in the techniques of right-of-way archaeology, two of whom developed their graduate theses on the subject (East 1998, Hopper 1998).
FDOT cannot be a preservation agency: its job is to build roads. Its archaeological role is to refine concepts of significance and regional settlement patterns.

4. Develop Predictive Models and Other Intensive Sampling Procedures

In terms of yielding archaeological knowledge about the nature and distribution of significant archaeological resources, undirected Phase I surveys give very little return. Further, as presented in more detail below, rote application of Phase I strategies can quickly lead to self-fulfilling results. This means that sites continue not to be found in areas where the investigator predicts that they will not occur, or that the same types of sites continue to be predictably discovered in the same patterned way over the landscape but are rarely further addressed through additional excavation. Both of these scenarios are part of the much-condemned "archaeology by the number" practices which will remain standard practice until better alternatives appear.

In recent years archaeologists in several states, either through the SHPO's office or in other agencies, have started advocating the use of predictive modeling not in the traditional sense as a tool for surveying unsurveyed areas, but rather as a means to shift management priorities away from areas thought to be adequately known. One of the more controversial applications comes from Pennsylvania, where the "watershed model" has fueled much debate, much of it published in the newsletter of the Society for American Archaeology (see the SAA Bulletin 14(2):12-13, 15(1):18, and 15(2): 18 for examples). The crux of the debate centers on whether or not certain areas can be left unsurveyed because the nature and extent of its archaeological resources can be satisfactorily predicted based on previous surveys of similar areas.

The implications are several, particularly with regard to Section 106 compliance which mandates a consideration of impact to significant resources. One must assume that the resources in the sampled areas have been adequately identified and evaluated, that significance concepts and criteria are current and actually reflect the nature of the archaeological record, and that the actual occurrence of significant sites is demonstrated to be low. That identified significant sites had in fact been excavated and had in fact yielded archeological knowledge would also have to be demonstrated. The downside of any one of these conditions not being met is, of course, the likelihood of significant resources (predicted or not) being written off. The plus side is the desirability of avoiding redundant effort, if in fact it is the case that the area under scrutiny possesses the same properties as another well-studied area. This does not mean necessarily a reduction in overall archaeological activities, but rather a focus on surveys or excavations of more crucial concern. Management is by definition a prioritization of effort, thus it would seem

desirable for archaeological resource managers (FDOT included) to be able to prioritize their activities. Both the Advisory Council on Historic Preservation and the National Park Service endorse the use of predictive models to manage archaeological resources, basing their support on the assumption that significant sites will be identified through the process of representative site discovery. We have previously argued however that this process will only be effective in actually netting significant sites if significance criteria are set at the level of the settlement pattern. Significance emerges as a feature of any aggregate of related sites.

The ultimate question becomes: when do you know enough about a certain area (whether by proxy or direct examination) to be able to direct your attention elsewhere? Certainly from the standpoint of accountability and productivity, low yielding Phase I surveys should be reduced in favor of projects that result both in high site discovery and varyingly intensive levels of excavation. In part, the answer relies upon one's view of proper sampling. Is an intensively surveyed but small sample superior to a broader but less intensive approach when it comes to generalizing to the whole?

At present, neither approach has been sufficiently developed to allow sophisticated predictive models to guide archaeological decision making in all but a few regions within the districts. Minimally, these models should address not only where individual sites are likely to be located, but how settlement systems are put together with regard to site type and spatial patterning (essentially what is referred to in Florida as the nexus model). Once the basic configuration of a settlement pattern has been identified, different levels of excavation can take place at every site in the system, thus the sampling is above the level of the individual site and the need for strict application of National Register significance criteria somewhat obviated. Not only the individual site, but the relationship between it and other sites are archaeologically tested. This approach essentially treats the settlement pattern area as one large archaeological site, with nexuses of activity and more or less intensively used areas between them. This "nonsite" approach to archaeological sampling in some ways shares the same premise as the National Register district. All sites listed within a National Register district are considered contributing resources to overall significance, and all can be justifiably excavated to reveal their attributes of significance.

5. Examine and Evaluate Current Site Discovery Methods

After some 25 years of conducting mandated FDOT-sponsored archaeology on state road right-of-ways, the time has come for an evaluation of the basic methods and procedures used in the site discovery process. To do such an evaluation requires the analysis of tightly controlled archaeological survey data compiled on a project specific basis, and is well beyond the scope of the present study. The purpose of archaeological survey on highway right-of-ways (or proposed corridors) is to be able to discover sites and classify them as to significant or nonsignificant. It is reasonable to ask at this juncture whether this objective is being met within reasonable expectations. Are existing survey techniques

enabling the discovery of patterned archaeological remains? Are significant sites (or settlement pattern nexuses) being identified as the result of site discovery procedures?

The variables are test unit size, unit depth, interval of placement, and the validity of the probability zone model which is based on distance to water. To the extent that the relationship between these variables is applied in a formulaic manner, the archaeological record is addressed to a greater or lesser degree. However, the contractual and compliance review processes have tended to reinforce rigid applications of testing models and have encouraged an inflated sense of predictability, perhaps out of necessity. Although specific recommendations are beyond our scope, we do suggest that methods used in recent years for successful site discovery in Florida archaeology and elsewhere be reviewed and incorporated into standard FDOT archaeological practice. For instance, we have learned that potentially significant archaeological deposits can be found fairly commonly in Florida below depths of one meter, beyond the reach of the standard shovel test depth. Deep deposits exist not only in wetland areas, but in upland areas to the east and west of the Central Florida-Lake Wales Ridge system where they may have been covered by wind-blown sands. These deposits might date to the earliest human cultures in Florida, but our sampling of them simply is too limited for proper evaluation. Test unit depth relates to unit size. It is nearly impossible to excavate a standard 50 cm x 50 cm shovel test to a depth below 100 cm. However, units measuring 50 cm x 100 cm or 1 m x 1 m can easily be taken to depths of 150 cm, where deposits of the deepest cultural layers can be systematically sampled and documented. Mechanical means of sampling deep strata can be used in certain situations, particularly in conjunction with active construction projects, but frequently are not.

In addition, the results of East's (1998) analysis of the relationship between distance to water and site location indicates that the site prediction model accepted by the CRM industry and compliance review boards has a distinct fault. The strong connection between high probability site areas being less than 100 meters from water may not exist in many areas of the state. For example, Hillsborough County is located in the Central Peninsular Gulf coast area in FDOT District 7. In the I-75 research area identified in East's study, 44 percent of the sites are located 100 meters or further from a natural water source (see Figure 9). The greatest distance between a site and a water source is 273 meters. This particular research area is located in an environment rich in wetlands, lakes, and ponds. Almost half of the recorded sites (most recorded during CRM surveys) would not fall within a high probability zone as defined by the currently accepted methodology of "site prediction."

Testing interval is strongly correlated with rate of site discovery. Leaping across the landscape at 100 meter intervals will result in the discovery of very few sites. This is the accepted spacing for areas designated as having low probability for site discovery, an expectation that is almost always fulfilled. Sets of tests at 10 or 25 meter intervals would seem to be more effective for finding sites, regardless of high, medium, or low

probability. The interval between sets might be greater in a low probability area than a high, but small sites simply will not be found without using close test intervals. The probability zone model itself, in which zones of high, medium, and low probability are established in a given area and test intervals set accordingly, should be questioned. The presumption of this model is that a specific defined geographical area must be covered by a certain number of tests. Site discovery is the result of a mechanical process, and occurs without the benefit of knowledge of other sites or settlement patterns in the area or a sense of how prehistoric cultures adapted to the environment. It is systematic but not predictive.

An alternative approach to the probability zone model begins with some basic hypotheses about the cultures that once lived in the region. For example, when looking at the central Florida Lakes region, we know that the prehistoric cultures of the area persisted in a hunting-gathering way of life through the historic period well after the era of contact. Historical documents consistently fail to mention agriculture and explicitly remark on hunting and gathering. Archaeological evidence reveals no corn or domesticated plants, and cob-marked pottery and other secondary evidence is absent. We can approach site survey in this area by asking: given that the cultures responsible for creating the archaeological record were hunters and gatherers, where would their sites be? How would their settlement pattern be put together? The testing that follows from this is predictive, and has site discovery as its primary goal. Testing begins where sites are predicted to be, and immediately becomes concerned with bounding and defining discovered deposits. Low probability areas become those where archaeological deposits are not, as determined by extending tests outward from site areas. Although this method might leave larger areas between sites untested, we argue that it would result in more efficient site discovery and greater information about both site integrity and spatial patterning in an early phase of testing.

Because of the scope and scale of FDOT-sponsored archaeology and the availability of research funds, the agency is in a unique position to pioneer new approaches to the archaeological processes of site discovery and evaluation as it continues to enhance its cultural resource management program to comply with historic preservation law. One of our understandings in taking on this study was that FDOT wanted their archaeological efforts to have a greater impact on the discipline of archaeology and make a stronger contribution to Florida archaeology. Carrying forward with experimental approaches to site survey methods is one way in which both goals - compliance and excellent archaeological work - can be accomplished.

6. Develop a Management Plan for Significant Sites in Right-of-Ways

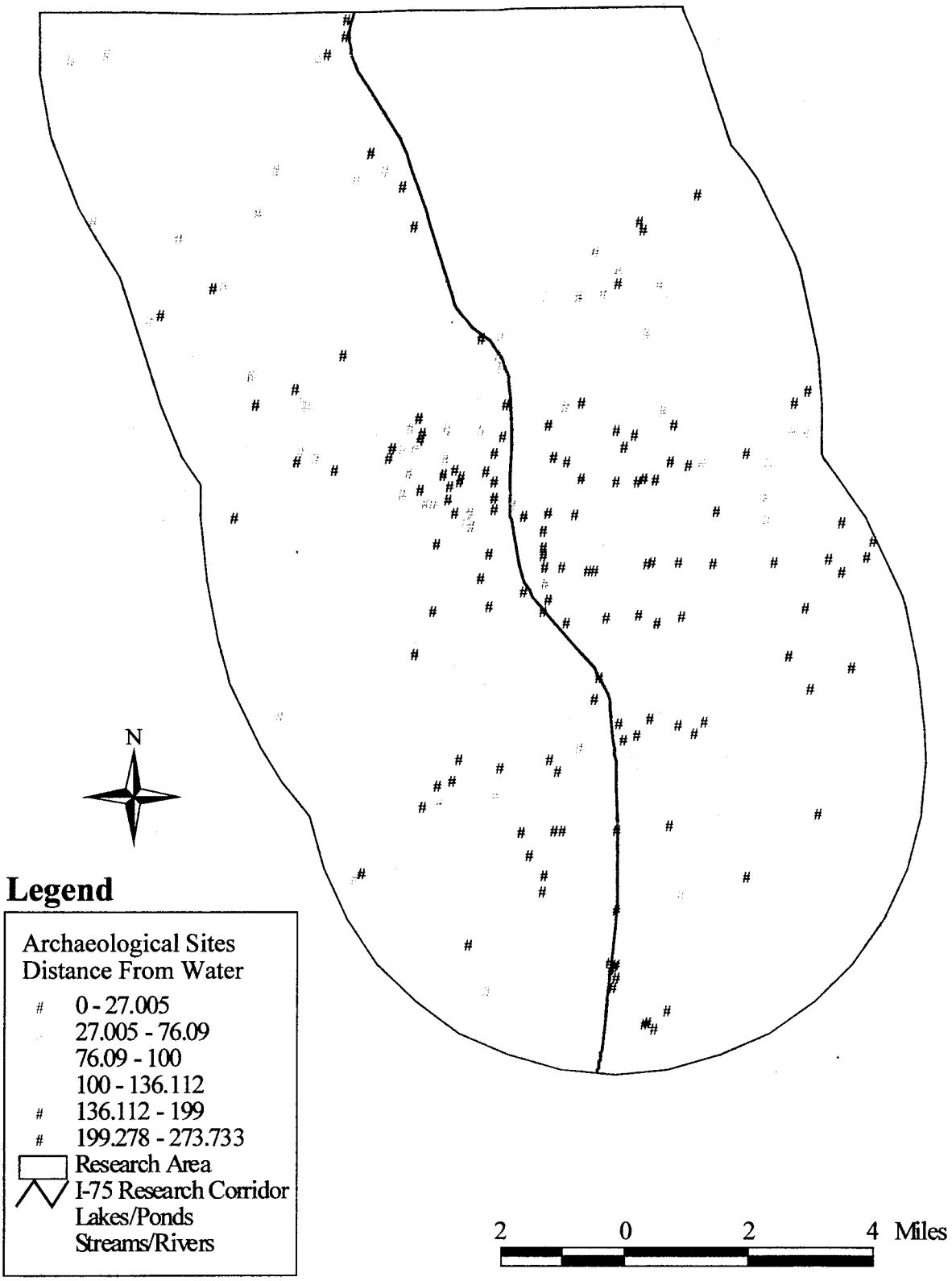
Statewide, hundreds of archaeological sites already identified as being significant exist in state road right-of-ways or in potential impact areas for highway construction. The

current condition of many of these sites is not known, making assumptions about site integrity problematic.

It simply is not known whether many of these sites still possess the properties of significance that were present at the time of their original evaluation. Further, current or potential endangerments to site integrity cannot be addressed on the basis of existing levels of information. However, Chapter 267.061 (2)(c)of the Florida Statutes compels state agencies to prevent the deterioration or substantial alteration of significant archaeological sites under their control, a mandate difficult to achieve without the explicit effort to identify and evaluate these sites.

Thus, we recommend that FDOT develop a protocol outlining the methods and procedures to be used in documenting and evaluating the condition and integrity of archaeological sites currently considered to be significant. Such a protocol would contain both literature (FSF) review elements and field methods of documentation and assessment, and could be developed around a pilot programs undertaken in a single FDOT district.

Figure 9: Map of Archaeological Sites and Water Sources by I-75 in Hillsborough



Recommended Archaeological Plan

The following is a model plan for implementing archaeological site survey on FDOT lands. The specific steps are described in greater detail in the individual district reports and previously herein. The model comes out of our field testing in Districts 1 and 5 conducted during the summers of 1997 and 1998.

Step 1: Identify Settlement Pattern Areas Within each District
Activity: refine site location models through targeted survey and FSF study

Step 2: Develop Research Design for Sampling Within Areas
Activity: identify groups or subsets of associated sites (nexuses)
Activity: select sample for intensive study using Evaluation Matrix
Activity: determine level of excavation by using Evaluation Matrix

Step 3: Conduct Intensive Excavations of all Sites Within "Nexus"

Step 4: Use Results to Develop Predictive Model for the Rest of the Settlement Pattern Area

Conclusions

In this study we present a means of site significance evaluation through the application of an evaluation matrix. Through the use of the matrix, a range of archaeological treatments is determined for sets of archaeological sites discovered in survey, sites that are associated within settlement pattern areas. Significance becomes a relative property of a set of associated sites, and thus can be attached to a range of past human behaviors rather than to those relatively limited behaviors reflected in the small subset of sites conventionally identified as significant.

We further propose that explicitly hypothesis-driven survey and testing, for the purpose of compliance or archaeological research, can be a major FDOT contribution to the development of local and regional settlement pattern models in Florida archaeology. At the least, some level of commitment to proactive survey in poorly known or undersurveyed areas is necessary before planning based on predictive models can occur.

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Glossary

archaeological component: a discrete subunit of an archaeological site defined spatially (through differential artifact distribution) or stratigraphically (by different soil strata) that equates to a unit of cultural measure. Multicomponent sites, for instance, contain evidence of several archaeological cultures, usually early below later, in different stratigraphic levels.

archaeological context: a thematic unit of organization, based on geography (such as the Okeechobee Basin) or culture period (such as Safety Harbor, used by archaeologists to refer to a late prehistoric culture of the Gulf coast, not the location on Old Tampa Bay), or a cultural unit (such as Seminole). Context in this usage means that the specific archaeological context under consideration provides the framework for developing a meaningful research design. Contexts for Florida archaeology were first explicitly put forth in the Florida Comprehensive Historic Preservation Plan (DHR 1992), where they were called historic contexts. For the purposes of our study, we have renamed them archaeological contexts to avoid confusion in using the word historic versus prehistoric.

archaeological site: an association of artifacts that reflect some level of past human activity. Sometimes operationally defined as a certain minimal number of artifacts recovered or observed per specified unit of volume. Archaeological sites range in size and complexity from a few scattered artifacts within a small geographical area to the remains of ancient cities. According to National Register criteria, archaeological sites must be at least 50 years old, that is, they must have resulted from human activity that took place at least 50 years before the present.

Archaic stage: in Florida archaeology, this refers to the adaptation made by prehistoric populations to the modern climatic regime after about 9,500 years ago. The Archaic stage is characterized by expanding populations, adaptations to wetland environments which result from sea level rise, increasing diversity and sophistication in stone tool technology, and the beginnings of organized burial practices. Pottery appears near the end of the Archaic stage, about 4,500 years before the present.

artifact: in conventional archaeological usage, an artifact is any object made or modified by human beings. Working definitions of artifact often include food remains such as animal bone found in archaeological sites, particularly if they have been modified by butchering or other human activity. Some archaeologists also think of any human modification of the environment to be an "artifact" of human activity, and thus view historic landscapes simply as artifacts writ large. The key point about artifacts is that, when considered in a group, they provide evidence of patterned human activity and thereby provide tangible evidence of the 'cultures" that archaeologists study.

flake: a "waste" piece of rock produced as a byproduct of the stone tool manufacture process, in which a larger core rock is systematically reduced by removing flakes until the final tool form is achieved. True flakes are identified by certain diagnostic features such as fracture patterns that show that they have been forcefully removed from the core. Some flakes were sharpened to be utilized as expedient tools such as knives and scrapers. Flakes, mostly made of chert (a silicified limestone), are the most common artifact recovered in surveys by Florida archaeologists.

***lithic scatter*:** a scatter of stone waste flakes produced during the process of stone tool manufacture.

***midden*:** a type of archaeological site that is an accumulation of artifacts in association with food remains, together indicating repeated food preparation and consumption within a restricted area. Shell middens, typically found along both Florida coasts and along interior rivers and wetlands, consist of the remains of shellfish such as oysters, snails, or clams as their majority ingredient. Black earth (or black dirt) middens typically occur in association with freshwater wetland environments such as ponds or sloughs and consist largely of animal food remains other than shellfish.

***Mississippian stage*:** a stage in the cultural development of societies in southeastern North America characterized by a chiefdom level of political organization, temple mound centers, an economy based on corn agriculture, and pottery tempered with shell. The Pensacola archaeological culture in Florida shows a direct relationship with the Mississippian phenomenon in terms of ceramics but is largely a coastal expression. The Fort Walton and Safety Harbor cultures clearly were in contact with Mississippian cultures elsewhere in the Southeast and shared similar religious and political concepts. In the developmental sequence, follows the Woodland Stage.

settlement pattern: as used in this report, a group of archaeological sites that together reflect the patterned use of space by an archaeological culture. Such sites are often functionally distinct and reflect various strategies of resource use.

significance: a property of an archaeological site that meets one or more general criteria established by the National Register of Historic Places to evaluate the ability of the site to contribute to knowledge of history or prehistory. The determination of significance for any specific archaeological site is the legal linchpin that holds together the relationship between agencies using federal funds, the SHPO's office, and the Advisory Council of Historic Preservation. It has been argued that significance is the single most important concept in cultural resources management.

***stratigraphic*:** refers to the horizontal layers of soil uncovered through archaeological excavation, distinguished from each other by color, texture, or composition. Stratigraphy, the study of stratification present at an archaeological site, often reveals correlations

between distinct strata and different occupational episodes (sometimes different culture periods) and thus provides a historical reconstruction of site use.

***Woodland stage*:** a stage in the cultural development of cultures in the Eastern Woodlands of North America characterized by a hunting and gathering economy, the presence of pottery, and village life. Not widely used in Florida except in reference to cultures of north Florida and the Panhandle. In the developmental sequence, follows the Archaic stage.

Appendix 1:

Explanation of Evaluation Matrix

The information in this appendix is taken from Hopper, Weisman, and East (1998) and Hopper (1998).

We developed an evaluation matrix to calculate a ranked score for an archaeological site based on general criteria of significance, site integrity, context representativeness, degree of protection, and other attributes. Scores in different ranges are used to designate different levels of mitigation ranging from no action needed to full scale excavation. District 5 will be used as the example in this appendix.

The evaluation matrix is not intended to replace the Section 106 significance evaluation process, but rather is designed to operationalize generally accepted elements of site significance, and, most importantly, give each site a ranking according to the context(s) it represents. In establishing the matrix values, we have also taken into account the level of existing knowledge about the archaeological contexts, as determined by their frequency of recording, in an attempt to shift criteria of significance away from well-known contexts to those less well studied or recognized. In this sense, the significance relationship is between the archaeological context and National Register criteria rather than, as has been traditionally the case, between individual archaeological sites and National Register criteria. The latter relationship is fraught with the potential for redundancy, particularly for an agency such as FDOT which is responsible for the management of archaeological sites on a statewide basis.

There are six sections to the evaluation matrix. Each of these sections reflects a different aspect of significance. In Section A, general significance categories are discussed. Section B deals with the questions of redundancy and representativeness. Section C ranks cultural components on a raw number basis giving points for each archaeological context represented at a site. Multiple component sites have an advantage over single component sites because of their greater number of archaeological contexts; more contexts results in more points. To ensure that single component sites are not undervalued Section D was created. Section D balances multi and single component sites. Sites located on public property ostensibly have a higher degree of protection than those on private property because of cultural resource laws. Section E allows sites on private property to receive higher point values, thus ensuring a higher level of archaeological attention. Finally, Section F examines the different site types and gives the highest point values to the types less frequently represented.

The geographical unit of analysis for the matrix is the county. This resulted from a trial-and-error process in which it was determined to our satisfaction that best use of FSF data would be made of the matrix operated on the county level.

Significance and the Evaluation Matrix

Due to the vague and general definition of significance given by the National Register, it is up to the researcher to make a case for a site's significance. "Archaeologists have the responsibility to provide convincing intellectual arguments to support significance attributions" (McManamon 1990 as cited in Briuer and Mathers 1996). However, most archaeologists are unwilling or unable to explain their reasoning for nominating sites to the National Register (King 1978 as cited in Briuer and Mathers 1996). If it can reasonably be argued that significance is in the eye of the beholder, two different archaeologists may make a different determination of a site's significance (Tainter and Lucas 1983 as cited in Briuer and Mathers 1996). This is an unacceptable outcome from a management standpoint, and will make effective policy decisions difficult. A site should be judged significant by the presence or absence of attributes determined to be necessary for a nomination, and each evaluator who views the site should arrive at the same determination. For the Evaluation Matrix, site attributes are evaluated by presence or absence rather than on an interval scale. The question, "Does a site possess a discernable archaeological context?" should be answered on a yes/no basis. The result of this distinction is shown by example. If an archaeologist arrives at a site and finds Orange period pottery, he/she can immediately answer yes to the above question with no ambiguity. If an interval scale is used the researcher could find the same piece of Orange period pottery and give the site a low score because there is only one sherd representing the Orange period context. Another researcher could conceivably give the same site a high score because there is a recognizable archaeological context represented. Any number of examples could be given and different outcomes would be arrived at by different people at the same time or the same person at different times. Therefore, it is very important that a site be judged on the presence or absence of attributes to simplify the process and reduce personal bias from the evaluation process.

Taken from the articles in *Trends and Patterns of Cultural Resource Management* (Briuer and Mathers 1996), the general categories of site significance used for the Evaluation Matrix are as follows:

- archaeological context,
- quantity/diversity of cultural materials,
- dateable remains,
- site type,
- site function,
- site size,
- physical integrity,
- environmental habitat,
- topographic settings,
- severity or immediacy of threatened impact,
- scientific value,
- ethnic significance,
- public interpretive value.

These categories correspond with categories from the literature: ethnic, scientific, historical, public/social, geographic/environmental, and integrity. Table 3 shows the general categories of significance phrased in question form.

In Section A, one point is given to a site for each "yes" answer, with a possible high score of 11. It is important to recognize at this point that the categories are not hierarchically arranged. All simply receive a single point value according to a "yes" response.

Table 3: General Categories of Significance (Section A of Evaluation Matrix)

Values to Be Evaluated	Yes	No
Is there a discernable archaeological context?		
Is there a diversity of cultural material?		
Are there dateable remains?		
Is the site type known?		
Is the site size known?		
Does the site have good integrity?		
Does the site have public interpretive value?		
Is the site in a high probability area?		
Is the threatened impact severe?		
Will this site provide scientific value?		
Would this site be considered significant to any ethnic or minority group?		

Table 4 (Section B) has been developed to address the problems of site redundancy and representativeness. One goal of preservation efforts is to preserve a representative sample of site types in perpetuity (Dixon 1977 as cited in Briuer and Mathers 1996). This approach should also apply to archaeological contexts. Sites with a representative context are considered significant because they represent a larger class of sites, most of which are not or cannot be preserved. For example, lithic scatters should be treated as significant sites in some cases because they are representative of aboriginal lifeways, and additionally, may address unique research problems. Thus it is important for redundancy to be considered without a pre-determination of what site types or contexts are automatically significant. Two points are given in Section B for each "No" answer for a total of four points.

Table 4: Site Redundancy (Section B of Evaluation Matrix)

Values to be Evaluated	Yes	No
Does a very similar site exist on protected land within the district or no more than one county into the adjacent district?		
Has a very similar site been excavated by FDOT or another agency within the district or no more than one county into the adjacent district?		

"One county into the adjacent district" is used as a parameter in Section B because it is a relative distance that can be adjusted according to the size of the counties. For the southern third of the state, where the counties are large, this relative distance should hold constant. In the northern two-thirds of the state where counties are smaller, a two or three county distance could be used, especially in areas where archaeological contexts straddle county lines. An example of this is the Leon-Jefferson cultural area that expands out of Leon and Jefferson counties and into surrounding Wakulla, Taylor, and Madison counties. Prehistoric cultural boundaries rarely conform to modern county lines and typically include several counties and partial counties. The county lines which are used to define FDOT districts, in some cases, divide archaeological contexts. Section B attempts to account for cultures spilling across county lines by including areas outside of the district.

Section C evaluates archaeological contexts. Below in Table 5 is the form that is used to count archaeological contexts for each county. The archaeological contexts listed on the form match the categories listed in the Comp Plan. This section is specifically designed to determine how well represented each archaeological context is in the county by counting the number of sites (or components) that are classified in each context category. Each district should have a custom designed table based on the archaeological contexts that could be present and are represented at sites. Appendix 1 contains a list of the Comp Plan contexts and what cultures are included in them.

Table 5: Archaeological Contexts Present in District 5 (Section C of Evaluation Matrix)

Context	Number	Rank
Paleoindian		
Archaic		
Deptford		
Prehistoric		
North West		
North		
North-Central		
East and Central		

Context	Number	Rank
North Peninsular Gulf Coast		
Glades		
Safety Harbor		
Fort Walton		
Pensacola		
British		
French		
Spanish I and II		
Seminole		
American		
Unspecified or Unknown		XXXXX

Using Brevard County as an example, we see that it lies strictly within the East and Central context (DHR 1992, Milanich 1994). The East and Central context encompasses all of the St. Johns and Malabar cultural periods. By examining the Florida Site File database and counting each occurrence, a clear picture of what cultures exist in Brevard County develops. As would be expected, East and Central is the most prevalent archaeological context with 184 occurrences. Surprisingly, with 71 sites, "Prehistoric" was the next most frequently reported category. This could be the result of a recorder not taking the time to specify the cultural type, or the site could have no diagnostic artifacts. In the FSF database many sites' archaeological contexts are listed as unknown or unspecified. In Brevard County, three sites are listed as Paleoindian in the site type category, but as unknown in the archaeological context area. However, even with errors in recording, as would be expected, the most frequent archaeological context in Brevard County is East and Central.

Once the contexts in Brevard County were counted, they were ranked. East and Central was ranked first, while Prehistoric was ranked second, and American was third, with Mission sites and Safety Harbor sites having no occurrences and receiving a rank or score of 10. These ranks translate directly into points. This gives more points to sites with rare or unusual contexts. For example, if a Glades or Ft. Walton context was identified in Brevard County, a higher score would be given to them. This results in sites with highly represented contexts receiving fewer points and a lower level of archaeological attention. The counties in District 5 and the context counts can be found in Appendix 2.

Section D considers the number of contexts represented at a site in relation to the total number of contexts potentially present in the county. Because the FSF form does not allow for more than eight contexts to be recorded for any individual site, the total number

of contexts in Section D is eight. The number of contexts actually recorded for the site are totaled and subtracted from eight.

Figure 10: Section D of the Evaluation Matrix

Section D
Returning to Section C, add the number of contexts marked, and enter that number here.

Total ____

Now take the total and subtract it from 8.

8 - Total = ____
Section D points: ____

Section E assigns a point value of two to a site on private property, and gives no point value to sites on public lands based on the assumption that sites on private lands are more endangered than those on public lands and should receive higher scores and thus receive priority archaeological attention. Likewise, in terms of specific FDOT archaeological sites, an argument could be made to assign them a value of two because they are also inherently endangered.

Figure 11: Section E of the Evaluation Matrix

Section E
Give a site on private property two (2) points.

Section E points: ____

Table 6 is a sample tally sheet used in Section F of the Evaluation Matrix. Almost every site type listed in the FSF database is on this sheet, including some that are used only once across the northern two-thirds of the state. The FSF uses a four letter code to stand for site types (see Appendix 4). The code CANA, which stands for canal, is rarely used. WKSH stands for shell works and appears more frequently. The most frequent category of all is the scatter category. This category includes shell scatters, lithic scatters, and ceramic scatters. The need for a representative sample and the elimination of redundancy is the driving force behind Section F of the evaluation matrix. Just as in Section C, Section F gives points on a ranked scale with the least represented site type receiving the most points. The point values reflect the level of overall representation of the site type not the importance of the of the site type itself. As in the archaeological contexts, one point separates each site type represented.

The FSF provides a decoding list for their site type and culture type codes (Appendix 4). The decoding list gives the definition for each of the codes currently in use. There are some codes on the database that are no longer used. If dated codes are problematic the FSF can be contacted at e-mail address *fsffile@mail.dos.state.fl.us*. In many cases an old code equated to a new one. When a code did not fit it was considered a new category and given the same point value as any other category on the list with the same number of occurrences.

Table 6: Site Type Tally Sheet (Section F of Evaluation Matrix)

Site Type	Count	Rank
ABOB		
AGRI/FEIL/FARM		
BLDG		
BRID		
CAMP		
CANA		
CAVE		
CCCC		
CIST		
FORT		
HABI		
HEAR		
HOUS/HOME		
INDU		
LGTH		
MDSH		
MDPL/MOUN		
MIDD		
MILI		
MISS		
MILL/MLCO/MLSU/MLLU		
MDBU		XXXXX
BURP		XXXXX

Site Type	Count	Rank
BURH		XXXXX
PLAN		
QUAR		
RAIL		
REFU		
RIDG		
ROAD		
NVST		
SALT		
SCAR/SCCE/SCLI/VADE		
SHRI		
STIL		
TOWN		
TURP		
UNKN/INDE		XXXXX
WELL		
WKER		
WKSH		
WHAR		
WREC		

The category VADE (variable density scatter) is a code that is no longer used but still remains in the database. All of the above scatters are prehistoric artifact scatters, while the code REFU, which stands for refuse, is reserved for historic artifact scatters. Prehistoric artifact scatters are counted together under the same category, including single artifact sites making them the most frequently recognized site type.

In the northern and panhandle counties historic sites and refuse scatters are the most frequently recorded site type. On the east coast and in the St. Johns River basin, shell mounds are the most widely recognized. Due to the great variety of site types across the district, each county must be the focus for regional and district wide generalizations. Site type categories with burials appear at the very bottom of the page. BURP stands for a

prehistoric burial site, BURH is a historic burial site and MDBU stands for a burial mound. Prehistoric and historic cemeteries fit under the codes listed above. Due to the special protection burial sites have under the law, burial sites are not included in the evaluation matrix counts. However, sites with burials were initially counted to determine how many significant sites have burials as one of their components.

Because information in the FSF database is not always current or accurate, field survey data should always be used over FSF data. For example, the Gautier site in Brevard County (8Br193) is listed in the FSF with site context and site type both unknown. Yet, the site has been excavated, presented in the literature, and cited in *Archaeology of Precolumbian Florida* (Milanich 1994). Without question this site is significant, and yet it is misrepresented in the FSF database. Of course there are not problems in every case, and as the mutability of the archaeological record suggests, sites could now lack evidence of a context that was once present. A combination of field survey and a visit to the site file should be used together when making a significance evaluation.

Two sites have been selected as examples of the matrix. These sites are in Brevard and Marion counties. Brevard County is located completely within the East and Central archaeological context area, while Marion County is on the boundary between the East and Central and the North-Central archaeological context areas. Marion County is inland while Brevard County is coastal and in the St. Johns River basin. The results of this example demonstrate the variability of the contexts and site types within District 5 using only data from the FSF database.

DeSoto Grove (8Br82) in Brevard County is listed as a midden, shell mound, burial mound, ceramic scatter, and historic refuse scatter. The archaeological contexts listed in the FSF database are Archaic (and Orange which is also Archaic) St. Johns, St. Johns 1, St. Johns 2, Malabar 2, and Spanish 1.

In Marion County, the Park site (8Mr1949) includes a midden, scatter, and mound. The site's archaeological contexts are listed as possible Paleoindian, Orange, Middle and Late Archaic, St. Johns, and Weeden Island. The Orange, Middle, and Late Archaic are all counted together as they all are Archaic culture periods. The St. Johns context falls under the East and Central archaeological context and the Weeden Island context is included in the North-Central archaeological context. If an archaeological context does not normally occur in the primary context of the county, then the count is applied to the archaeological context area in which it normally occurs. For example, a site found and labeled as St. Johns in northwest Florida would be counted under East and Central. The following insert is an example of this process for sites 8Br82 and 8Mr1949.

Evaluation Matrix Example for Site 8Br82

Section A
Place a mark in the box that reflects the best answer.

Values to Be Evaluated	Yes	No
Is there a discernable archaeological context?	X	
Is there a diversity of cultural material?	X	
Are there dateable remains?		X
Is the site type known?	X	
Is the site size known?		X
Does the site have good integrity?		X
Does the site have public interpretive value?		X
Is the site in a high probability area?		X
Is the threatened impact severe?		X
Will this site provide scientific value?		X
Would this site be considered significant to any ethnic or minority group?		X

TOTAL NUMBER OF YES ANSWERS __3__

Section A points: __3__

Section B
Place a mark in the box that reflects the best answer.

Values to be Evaluated	Yes	No
Does a very similar site exist on protected land within the district or no more than one county into the adjacent district?		X
Has a very similar site been excavated by FDOT or another agency within the district or no more than one county into the adjacent district?		X

TOTAL NUMBER OF NO ANSWERS _2__
Multiply the above number by two (2) to obtain section B points.

Section B points: __4__

Section C

1) Below are the selections possible for archaeological context. Place a mark in column A beside all that apply.

2) Turn to Appendix (not provided in this example, but see Appendix 2 in the District 5 report). Look up the county and the appropriate point value for each marked context and enter that value in column B. Total the points and place the value in the space provided.

A	B	
		Paleo
x	4	Archaic
		Deptford
		North West
		North
		North-Central
		Pensacola
		French
		Seminole
		Unspecific

A	B	
x	1	East and Central
		North Peninsular Gulf Coast
		Glades
		Prehistoric Unspecific
		Safety Harbor
		Fort Walton
		British
x	6	Spanish I & II
		American

Section C points: 11

Section D

Returning to Section C, add the number of contexts marked, and enter that number here.

Total 3

Now take the total and subtract it from 8.

8 - Total = 5

Section D points: 5

Section E

Give a site on private property two (2) points.

Section E points: 0

Section F

1) Below are the selections possible for site type. Place a mark in column A beside all that apply.

2) Turn to Appendix (not provided in this example, but see Appendix 2 in the District 5 report). Look up the appropriate county and point value for each site type marked and enter that value in column B. Total the points and place the value in the space provided.

A	B	
		ABOB
		BLDG
		CAMP
		CAVE
		CIST/WELL
		HABI
		HOUS/HOME
		LGTH
		MDPL/MOUN
		MILI
		MILL/MLCO/MLSU/MLLU
		QUAR
x	6	REFU
		ROAD
		SALT
		SHRI
		TOWN
		WKER
		WHAR
x	XX	MDBU
	XX	BURP
	XX	BURH

A	B	
		AGRI/FEIL/FARM
		BRID
		CANA
		CCCC
		FORT
		HEAR
		INDU
x	2	MDSH
x	3	MIDD
		MISS
		PLAN
		RAIL
		RIDG/RING
		NVST
x	1	SCAR/SCCE/SCLI/VADE/SING
		STIL
		TURP
		WKSH
		WREC

Section F points: 12

Section Totals

Transfer the total points in each section to this page.

Section A	3
Section B	4
Section C	11
Section D	5
Section E	0
Section F	12
Grand Total Points for Site	35

Evaluation Matrix Example for Site 8Mr1949

Section A
Place a mark in the box that reflects the best answer.

Values to Be Evaluated	Yes	No
Is there a discernable archaeological context?	X	
Is there a diversity of cultural material?	X	
Are there dateable remains?		X
Is the site type known?	X	
Is the site size known?		X
Does the site have good integrity?		X
Does the site have public interpretive value?		X
Is the site in a high probability area?		X
Is the threatened impact severe?		X
Will this site provide scientific value?		X
Would this site be considered significant to any ethnic or minority group?		X

TOTAL NUMBER OF YES ANSWERS __3__

Section A points: __3__

Section B
Place a mark in the box that reflects the best answer.

Values to be Evaluated	Yes	No
Does a very similar site exist on protected land within the district or no more than one county into the adjacent district?		X
Has a very similar site been excavated by FDOT or another agency within the district or no more than one county into the adjacent district?		X

TOTAL NUMBER OF NO ANSWERS _2__
Multiply the above number by two (2) to obtain section B points.

Section B points: __4__

Section C

1) Below are the selections possible for archaeological context. Place a mark in column 1 beside all that apply.

2) Turn to Appendix (not provided in this example, but see Appendix 2 in the District 5 report). Look up the county and the appropriate point value for each marked context and enter that value in column 2. Total the points and place the value in the space provided.

A	B	
x	7	Paleo
x	3	Archaic
		Deptford
		North West
		North
x	4	North-Central
		Pensacola
		French
		Seminole
		Unspecific

A	B	
x	5	East and Central
		North Peninsular Gulf Coast
		Glades
		Prehistoric Unspecific
		Safety Harbor
		Fort Walton
		British
		Spanish I & II
		American

Section C points: 19

Section D

Going back to Section C, add the number of contexts marked and enter that number here.

Total 4

Now take the total and subtract it from 8.

8 - Total = 4

Section D points: 4

Section E

Give a site on private property two (2) points.

Section E points: 2

Section F

1) Below are the selections possible for site type. Place a mark in column A beside all that apply.

2) Turn to Appendix (not provided in this example, but see Appendix 2 in the District 5 report). Look up the appropriate county and point value for each site type marked and enter that value in column B. Total the points and place the value in the space provided.

A	B	
		ABOB
		BLDG
		CAMP
		CAVE
		CIST/WELL
		HABI
		HOUS/HOME
		LGTH
x	5	MDPL/MOUN
		MILI
		MILL/MLCO/MLSU/MLLU
		QUAR
		REFU
		ROAD
		SALT
		SHRI
		TOWN
		WKER
		WHAR
	XX	MDBU
	XX	BURP
	XX	BURH

A	B	
		AGRI/FEIL/FARM
		BRID
		CANA
		CCCC
		FORT
		HEAR
		INDU
		MDSH
x	8	MIDD
		MISS
		PLAN
		RAIL
		RIDG/RING
		NVST
x	1	SCAR/SCCE/SCLI/VADE/SING
		STIL
		TURP
		WKSH
		WREC

Section F points: 14

Section Totals

Transfer the total points in each section to this page.

Section A	3
Section B	4
Section C	19
Section D	4
Section E	2
Section F	14
Grand Total Points for Site	46

The total point value is then used to determine the recommended level of future archaeological activity at the site. The above two examples clearly illustrate the differences between two sites. The Brevard site has the advantage of having a historic component, and a single additional site type, but the Marion County site is located on

private property. The Brevard site receives a score of 35, and the Marion site a score of 46. Table 7 shows the scores by section for each site.

Table 7: Site Example Comparison for 8Mr1949 and 8Br82

Site	8Mr1949	8Br82
Section A	3	3
Section B	4	4
Section C	19	11
Section D	4	5
Section E	2	0
Section F	14	12
Total Score	46	35

Sections A and B have the same point values, but in Section C the Marion County site scores higher because of a rare Paleoindian context. The Marion County site ownership is unknown therefore it is presumed to be in private hands and is given two points in Section E. These two sites were generally similar, and yet the scores they received from the evaluation matrix were very different. This underscores the variability of the contexts and site types across the counties, and supports that the county is the proper unit of analysis. Ten percent of all sites listed with the FSF database in District 5 were examined with the evaluation matrix.

Recommended Levels of Archaeological Treatment

Currently, the FDOT determines eligibility for National Register sites through Section 106 compliance. This procedure is a complicated dialog between FDOT, the Federal Highway Administration (FHWA), the State Historic Preservation Officer and the Advisory Council for Historic Preservation that works, and should not be altered. The FDOT measures that are suggested here are to provide a reproducible and defensible method of determining mitigation efforts for sites located in FDOT District 5.

The first step is to identify and describe the mitigation measures. There are five possible measures which range from Phase I survey to full scale excavation. Of course, a site file search is the required first step for all of the following measures. Phase I survey is the first measure and requires differential sampling by shovel tests according to probability zones, once an area of potential effect (APE) is determined. Phase II survey, the second mitigation measure involves determining the boundaries of a site, identifying the areas of highest cultural concentrations and excavating 1m by 1m test units. The number and placement of the units should be determined by a qualified field experienced researcher.

Phase III excavations can be subdivided into three levels of intensity. The least intensive Phase III measure requires 30 percent excavation of the portion of the site located in the RoW. The remaining 70 percent of the site within the RoW requires no additional work. The area of densest cultural material shall be excavated.

The second level of Phase III mitigation calls for the excavation of 50 percent of a site located in the RoW. The most intensive level of Phase III mitigation requires excavation of 70 percent to 80 percent of the site located in the RoW, allowing only 20 percent or 30 percent of a site to be destroyed. This level of excavation should be reserved for sites that meet National Historic Landmark criteria.

A ten percent sample of the total known sites in District 5 was examined for significance through the evaluation matrix. The first sites evaluated were National Register sites, National Register eligible sites and sites listed on the Comp Plan, then additional sites were evaluated up to the ten percent mark. This resulted in a range of scores from which the remaining sites in the county can be judged. Using Lake County in District 5 as an example, the top score was 40 points while the lowest score was 11 points. The significant sites should be the highest scoring sites in the county, and with few exceptions they are. Due to the structure of the matrix the lowest score any site can receive is eight points. No site can score lower than eight points, and few sites will score higher than the National Register sites. Of course, if a site scores higher then it should be nominated for the National Register.

Each county has all five mitigation measures available to it. Which measure to be used is decided by comparing a percentage to the highest scoring site in the county. This allows for flexibility as the number of sites grow and their evaluation matrix scores are added into the mitigation measures. Sites which score within 80 percent of the top score shall be excavated at the Phase III, 80 percent level. Again using Lake County as an example, sites scoring 32 points or higher should be excavated at this level. For Lake County 12 percent of sites receive this level of mitigation. Sites scoring 28 points or within 70 percent of the top score are excavated at the Phase III, 50 percent level. Nine percent of the sites in Lake County are mitigated at this level. Sites scoring 24 points or more will have the Phase III, 30 percent measure applied to them. Thirty nine percent of all sites in Lake County will be excavated through Phase III mitigation. Sixty percent of the sites will be mitigated by Phase II or Phase I survey to satisfy the requirements. Table 8 shows the information provided above. The last column shows the cumulative percentage of National Register sites encompassed within each measure. Seventy-five percent of National Register sites in Lake County are mitigated through Phase III excavation. Ideally, all of the National Register sites should be excavated by Phase III mitigation before being adversely impacted.

Table 8: Lake County Mitigation Measures

Mitigation	% of 40	Scores	Total sites	% of total sites	Cumulative percent	NR sites	Cumulative % of NR sites
Phase III, 80%	80%+	32 - 40	4	12%	12%	4	33%
Phase III, 50%	70%	28 - 31	3	9%	21%	3	58%
Phase III, 30%	60%	24 - 27	6	18%	39%	2	75%
Phase II	50%	20 - 23	10	30%	69%	2	92%
Phase I	≤40%	16 - 19	10	30%	100%	1	100%

The percentage cut-off points used in the mitigation measures table above are judgmental and were chosen in an attempt to provide a realistic way to distribute the mitigation measures. The highest score was judged to set a benchmark and the percentages were based on of this score as this site represents a well researched site where adequate reporting has been done and site file data is current. Percentages of the top scoring sites were focused on, and the cut off points of 80, 70, 60, 50, and less than or equal to 40 percent were decided upon. These cut-off points can be adjusted upward as new sites are evaluated and score higher than the current top score in each county. This allows for growth; as excavations are concluded the bar is raised and redundancy is reduced.

Phase III mitigations are reserved for only the highest scoring sites. Therefore, a low end cut off point for Phase III excavation was set at 60 percent. This means that if a site scores within 60 percent of the highest score in that county then it will receive a Phase III mitigation measure. Different percentages for cut-off points were experimented with (higher and lower) but each excluded too many National Register sites or included sites that really were not of the quality to require Phase III mitigation. For example, when 90 percent was chosen for the top Phase III level many National Register sites dropped down into the phase I level. This was unacceptable. Then 70 percent was considered, this resulted in low scoring sites receiving attention at the lowest Phase III level. Again this was unacceptable. Ultimately, the levels should be adjusted individually for each county by the district managers to allow for budgeting concerns. But once this level is decided on it should not be changed at the risk of invalidating the reasoning behind prior excavation. The intervals above and below were set in 10 percent increments for ease of tallying and consistency across the counties. These also may be adjusted, but once they are set they also must remain constant.

Appendix 2:

Descriptive Statistics for Archaeological Sites in each District by County

The following tables demonstrate some statistics on significant and non-significant sites in each FDOT District by county. Data column one represents the total number of significant sites in or in contact with a state road right-of-way. The second data column records the quantity of significant archaeological sites by county. The third column contains the total recorded sites per county (including significant sites). Column four shows the percentage of significant sites in the right-of-way compared to all the significant sites. Column five shows the percentage of total significant sites to total recorded sites per county. Column six shows the percentage of significant sites compared to the total recorded significant sites in the district. The seventh column shows the percentage of total recorded sites in a county compared to total recorded in the district. Column eight contains the square miles in that county. Column nine represents the number of recorded sites per 100 square miles per county. The tenth column demonstrates the number of significant sites per 100 square miles per county.

Table 9: Significant and/or Recorded Archaeological Sites in District 1

County	RoW Sig	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ Dist Sig	Sites/ Dist	Mi^2	Site/ 100 Mi2	Sig/ 100 Mi2
Charlotte	2	24	121	8.3%	19.8%	6.0%	4.8%	705	17.16	3.40
Collier	5	67	600	7.5%	11.2%	16.8%	23.9%	2032	29.53	3.30
DeSoto	0	13	78	0.0%	16.7%	3.3%	3.1%	648	12.04	2.01
Glades	3	27	131	11.1%	20.6%	6.8%	5.2%	746	17.56	3.62
Hardee	1	9	105	11.1%	8.6%	2.3%	4.2%	630	16.67	1.43
Hendry	2	22	96	9.1%	22.9%	5.5%	3.8%	1187	8.09	1.85
Highlands	3	31	87	9.7%	35.6%	7.8%	3.5%	1041	8.36	2.98
Lee	4	53	272	7.5%	19.5%	13.3%	10.8%	803	33.87	6.60
Manatee	6	48	289	12.5%	16.6%	12.0%	11.5%	688	42.01	6.98
Okeechobee	2	11	34	18.2%	32.4%	2.8%	1.4%	780	4.36	1.41
Polk	8	27	425	29.6%	6.4%	6.8%	16.9%	1861	22.84	1.45
Sarasota	10	68	275	14.7%	24.7%	17.0%	10.9%	529	51.98	12.85
Dist 1 Total	46	400	2513	11.5%	15.9%	100%	100%	11650	21.57	3.43

Table 10: Significant and/or Recorded Archaeological Sites in District 2

County	RoW Sig	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ Dist Sig	Sites/ Dist	Mi2	Sites/ 100 mi2	Sig Sites/ 100 mi2
Alachua	45	114	623	39.5%	18.30%	26.76%	16.91%	902	69.07	12.64
Baker	6	14	218	42.9%	6.42%	3.29%	5.92%	585	37.26	2.39
Bradford	1	3	46	33.3%	6.52%	0.70%	1.25%	293	15.70	1.02
Clay	2	14	129	14.3%	10.85%	3.29%	3.50%	598	21.57	2.34
Columbia	3	16	381	18.8%	4.20%	3.76%	10.34%	797	47.80	2.01
Dixie	1	18	187	5.6%	9.63%	4.23%	5.08%	688	27.18	2.62
Duval	26	78	362	33.3%	21.55%	18.31%	9.83%	777	46.59	10.04
Gilchrist	0	7	50	0.0%	14.00%	1.64%	1.36%	339	14.75	2.06
Hamilton	1	10	142	10.0%	7.04%	2.35%	3.85%	514	27.63	1.95
Lafayette	3	4	29	75.0%	13.79%	0.94%	0.79%	543	5.34	0.74
Levy	4	28	275	14.3%	10.18%	6.57%	7.46%	1100	25.00	2.55
Madison	7	9	75	77.8%	12.00%	2.11%	2.04%	702	10.68	1.28
Nassau	4	12	113	33.3%	10.62%	2.82%	3.07%	650	17.38	1.85
Putnam	5	22	187	22.7%	11.76%	5.16%	5.08%	803	23.29	2.74
St. Johns	15	36	261	41.7%	13.79%	8.45%	7.08%	617	42.30	5.83
Suwanee	4	12	229	33.3%	5.24%	2.82%	6.22%	677	33.83	1.77
Taylor	4	21	185	19.0%	11.35%	4.93%	5.02%	1032	17.93	2.03
Union	3	8	192	37.5%	4.17%	1.88%	5.21%	240	80.00	3.33
Dist 2 Total	134	426	3684	31.5%	11.56%	100%	100%	11857	31.07	3.59

Table 11: Significant and/or Recorded Archaeological Sites in District 3

County	RoW Sig	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ Dist Sig	Sites/ Dist	Mi2	Site/ 100 Mi2	Sig/ 100 Mi2
Bay	13	67	250	19.4%	26.80%	16.50%	3.97%	753	33.20	8.90
Calhoun	1	3	131	33.3%	2.29%	0.74%	2.08%	557	23.52	0.54
Escambia	14	30	493	46.7%	6.09%	7.39%	7.82%	657	75.04	4.57
Franklin	12	21	145	57.1%	14.48%	5.17%	2.30%	545	26.61	3.85
Gadsden	5	14	189	35.7%	7.41%	3.45%	3.00%	508	37.20	2.76
Gulf	1	10	69	10.0%	14.49%	2.46%	1.09%	559	12.34	1.79
Holmes	1	3	110	33.3%	2.73%	0.74%	1.75%	483	22.77	0.62
Jackson	9	23	634	39.1%	3.63%	5.67%	10.06%	932	68.03	2.47
Jefferson	4	37	573	10.8%	6.46%	9.11%	9.09%	598	95.82	6.19
Leon	28	62	1052	45.2%	5.89%	15.27%	16.69%	685	153.58	9.05
Liberty	3	21	356	14.3%	5.90%	5.17%	5.65%	838	42.48	2.51
Okaloosa	8	17	631	47.1%	2.69%	4.19%	10.01%	944	66.84	1.80
Santa Rosa	8	14	539	57.1%	2.60%	3.45%	8.55%	1032	52.23	1.36

Wakulla	20	45	511	44.4%	8.81%	11.08%	8.11%	614	83.22	7.33
Walton	7	31	556	22.6%	5.58%	7.64%	8.82%	1046	53.15	2.96
Washington	1	8	64	12.5%	12.50%	1.97%	1.02%	597	10.72	1.34
Dist 3 Total	135	406	6303	33.3%	6.44%	100%	100%	11348	55.54	3.58

Table 12: Significant and/or Recorded Archaeological Sites in District 4

County	RoW Sig	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ Dist Sig	Sites/ Dist	Mi2	Site/ 100 Mi2	Sig/ 100 Mi2
Broward	8	51	215	15.7%	23.7%	50.0%	41.1%	1218	17.65	4.19
Indian River	1	10	98	10.0%	10.2%	9.8%	18.7%	512	19.14	1.95
Martin	3	7	44	42.9%	15.9%	6.9%	8.4%	599	7.35	1.17
Palm Beach	3	19	107	15.8%	17.8%	18.6%	20.5%	1978	5.41	0.96
St. Lucie	6	15	59	40.0%	25.4%	14.7%	11.3%	588	10.03	2.55
Dist 4 Total	21	102	523	20.6%	19.5%	100.0%	100.0%	4895	10.68	2.08

Table 13: Significant and/or Recorded Archaeological Sites in District 5

County	RoW Sig	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ Dist Sig	Sites/ Dist	Mi2	Site/ 100 Mi2	Sig/ 100 Mi2
Brevard	3	64	362	4.7%	17.68%	20.19%	13.83%	1031	35.11	6.21
Flagler	0	18	76	0.0%	23.68%	5.68%	2.90%	483	15.73	3.73
Lake	3	46	332	6.5%	13.86%	14.51%	12.68%	996	33.33	4.62
Marion	8	80	816	10.0%	9.80%	25.24%	31.17%	1617	50.46	4.95
Orange	1	20	235	5.0%	8.51%	6.31%	8.98%	993	23.67	2.01
Osceola	0	16	184	0.0%	8.70%	5.05%	7.03%	1350	13.63	1.19
Seminole	0	6	115	0.0%	5.22%	1.89%	4.39%	321	35.83	1.87
Sumter	4	10	145	40.0%	6.90%	3.15%	5.54%	561	25.85	1.78
Volusia	10	57	353	17.5%	16.15%	17.98%	13.48%	1115	31.66	5.11
Dist 5 Total	29	317	2618	9.1%	12.11%	100%	100%	8467	30.92	3.74

Table 14: Significant and/or Recorded Archaeological Sites in District 6

County	Sig RoW	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ Dist Sig	Sites/ Dist	Mi^2	Site/ 100 Mi^2	Sig/ 100 Mi^2
Miami-Dade	14	90	531	15.6%	17%	71%	54%	2054	25.85	4.38
Monroe	3	36	445	8.3%	8%	29%	46%	1946	22.87	1.85
Dist 6 Total	17	126	976	13.5%	13%	100%	100%	4000	24.40	3.15

Table 15: Significant and/or Recorded Archaeological Sites in District 7

County	RoW Sig	Sig Sites	Total Sites	RoW/ Sig	Sig/ T Sites	Sig/ Dist Sig	Sites/ Dist	Mi^2	Sites/ 100 mi^2	Sig/ 100 mi^2
Citrus	4	36	321	11.1%	11.2%	19.4%	15.0%	570	56.32	6.32
Hillsborough	33	80	833	41.3%	9.6%	43.0%	38.9%	1040	80.10	7.69
Hernando	12	21	194	57.1%	10.8%	11.3%	9.1%	585	33.16	3.59
Pasco	2	15	478	13.3%	3.1%	8.1%	22.3%	751	63.65	2.00
Pinellas	7	34	317	20.6%	10.7%	18.3%	14.8%	264	120.08	12.88
Dist 7 Total	58	186	2143	31.2%	8.7%	100%	100%	3210	66.79	5.79

Appendix 3:

Evaluation Matrix Worksheets

These worksheets may be used to evaluate archaeological sites. For further detail see Hopper (1998).

SECTION A

Place a mark in the box which reflects the best answer.

Values to Be Evaluated	YES	NO
Is there a discernable archaeological context?		
Is there a diversity of cultural material?		
Are there dateable remains?		
Is the site type known?		
Is the site size known?		
Does the site have good integrity?		
Does the site have public interpretive value?		
Is the site in a high probability area?		
Is the threatened impact severe?		
Will this site provide scientific value?		
Would this site be considered significant to any ethnic or minority group?		

TOTAL NUMBER OF YES ANSWERS _____

Section A points: _____

SECTION B

Place a mark in the box which reflects the best answer.

Values to be Evaluated	Yes	No
Does a very similar site exist on protected land within the district or no more than one county into the adjacent district?		
Has a very similar site been excavated by FDOT or another agency within the district or no more than one county into the adjacent district?		

TOTAL NUMBER OF NO ANSWERS____

Multiply the above number by two (2) to obtain section B points.

Section B points: ____

SECTION C

1) Below are the selections possible for archaeological context. Place a mark in column A beside all that apply.

2) Turn to the appendix that contains the values for each county in the district and point values for each marked context and enter that value in column B. Total the points and place the value in the space provided.

A	B	
___	___	Paleo
___	___	Archaic
___	___	Deptford
___	___	North West
___	___	North
___	___	North-Central
___	___	Pensacola
___	___	French
___	___	Seminole
___	___	Unspecific

A	B	
___	___	East and Central
___	___	North Peninsular Gulf Coast
___	___	Glades
___	___	Prehistoric Unspecific
___	___	Safety Harbor
___	___	Fort Walton
___	___	British
___	___	Spanish I & II
___	___	American

Section C points: _____

SECTION D

Going back to Section C, add the number of contexts marked and enter that number here.

Total: _____

Now take the total and subtract it from 8. 8 - _____

Total = _____

Section D points: _____

SECTION E

Give a site on private property two (2) points.

Section E points: _____

SECTION F

1) Below are the selections possible for site type. Place a mark in column 1 beside all that apply.

2) Turn to the appendix that contains the values for each county in the district and point values for each site type marked and enter the appropriate county site type value in column B. Total the points and place the value in the space provided.

A	B	
___	___	ABOB
___	___	BLDG
___	___	CAMP
___	___	CAVE
___	___	CIST/WELL
___	___	HABI
___	___	HOUS/HOME
___	___	LGTH
___	___	MDPL/MOUN
___	___	MILI
___	___	MILL/MLCO/MLSU/MLLU
___	___	QUAR
___	___	REFU
___	___	ROAD
___	___	SALT
___	___	SHRI
___	___	TOWN
___	___	WKER
___	___	WHAR
___	XX	MDBU
___	XX	BURP
___	XX	BURH

A	B	
___	___	AGRI/FEIL/FARM
___	___	BRID
___	___	CANA
___	___	CCCC
___	___	FORT
___	___	HEAR
___	___	INDU
___	___	MDSH
___	___	MIDD
___	___	MISS
___	___	PLAN
___	___	RAIL
___	___	RIDG/RING
___	___	NVST
___	___	SCAR/SCCE/SCLI/VADE/SING
___	___	STIL
___	___	TURP
___	___	WKSH
___	___	WREC

Section F points: _____

SECTION TOTALS

Transfer the total points in each section to this page.

Section A	____
Section B	____
Section C	____
Section D	____
Section E	____
Section F	____

Grand Total Points for Site _____

Appendix 4:

FSF Site Type and Culture Type Decoding List

SITE TYPE: Decoding List FLORIDA MASTER SITE FILE

CODE	SITE TYPE
ABOB	Aboriginal Boat
AGRI	Agriculture/Farm**
BLDG	Building Remains - foundation chimney
BRID	Bridge
BURH	Burial(s) (historic)
BURP	Burial(s) (prehistoric)
CAMP	Campsite (prehistoric)
CANA	Canal
CAVE	Cave
CCCC	CCC Camp (forest)
CIST	Cistern
CLAY	Clay Pit**
DEST	Destroyed (totally)
FIEL	Old Field (historic)
FORT	Historic Fort
HABI	Habitation (prehistoric)
HEAR	Historic Earthworks
HOUS	House
INDE	Indeterminate**
INDU	Industrial
INUN	Inundated Land Site
LGTH	Lighthouse
MDBU	Prehistoric Burial Mound
MDPL	Platform Mound (prehistoric)
MDSH	Prehistoric Shell Midden
MIDD	Prehistoric Midden(s)
MILI	Military Unspecified
MILL	Mill
MISS	Mission
MLCO	Cotton Mill
MLGR	Grist Mill
MLLU	Lumber Mill
MLSU	Sugar Mill
MOUN	Prehistoric Mound(s)
NARF	Nonartifact: No Defining Artifacts
NVST	Naval Stores
OTHR	Other
PALE	Paleontological**
PLAN	Plantation
POPI	Possible Plantation
QUAR	Prehistoric Quarry
RAIL	Railroad Line Segment
REDE	Redeposited Site
REFU	Historic Refuse
RIDG	Shell Ridge (relict)
RING	Prehistoric Shell Ring
ROAD	Historic Road Segment
SALT	Saltworks
SCAR	Artifact Scatter
SCCE	Ceramic Scatter
SCDE	Dense Scatter
SCLI	Lithic Scatter/Quarry (prehistoric)
SCNQ	Lithic Scatter/Non-Quarry (prehistoric)
SCSH	Prehistoric Shell Scatter
SHRI	Shrine**
SING	Single Artifact
STIL	Still
STOR	Store
TOWN	Historic Town
TURP	Turpentine Camp
UANC	Anchorage Midden - Underwater
UCAR	Careening Midden - Underwater
UDIS	Underwater Disposal Midden
UFRE	Freshwater Submerged - Unspecified
UNKN	Unknown
UNSP	Unspecified on Form
USAL	Saltwater Submerged - Unspecified
UUNS	Underwater - Unspecified
UWHF	Wharf Midden - Underwater
VADE	Variable Density Scatter
WALL	Wall
WELL	Historic Well
WHAR	Wharf/Wharves
WKER	Prehistoric Earth Works
WKSH	Prehistoric Shell Works
WREC	Historic Shipwreck

** - Coding is too vague or otherwise to be avoided when possible.

CULTURE TYPE: Decoding List FLORIDA MASTER SITE FILE

CODE	CULTURE
19th	Nineteenth Century American
20th	Twentieth Century American
AFRO	Afro-American
ALAC	Alachua
AMAC	American Acqn. & Development
AMER	American
ARC	Archaic Unspecified**
ARCE	Early Archaic
ARCL	Late Archaic
ARCM	Middle Archaic
BLG	Belle Glade
BLG1	Belle Glade I
BLG2	Belle Glade II
BLG3	Belle Glade III
BLG4	Belle Glade IV
BOOM	Boom Times
BRIT	British
CADE	Cades Pond
CIVL	Civil War
CREE	Lower Creek
DEPR	Depression/New Deal
DEPT	Deptford
DUTC	Dutch
ELLI	Elliots Point
ENGL	Englewood
EURO	European Misc.**
FREN	French
FTWL	Fort Walton
GL	Glades
GL1	Glades I
GL1A	Glades IA
GL1B	Glades IB
GL2	Glades II
GL2A	Glades IIA
GL2B	Glades IIB
GL2C	Glades IIC
GL3	Glades III
GL3A	Glades IIIA
GL3B	Glades IIIB
GL3C	Glades IIIC
HICK	Hickory Pond
HIST	Historic - Unspecified
INDE	Indeterminate**
ITAL	Italian
JAKE	Jaketown**
KOLO	Kolomoki
LAMA	Lamar
LEFE	Leon - Jefferson
MAL1	Malabar I
MAL2	Malabar II
MANA	Manasota
MODE	Modern (post 1950)
MTTA	Mt. Taylor

CODE	CULTURE
NARF	Non-Artifact: Culture?
NORW	Norwood
ORAN	Orange
OTHR	Other
PALE	Paleoindian
PENS	Pensacola
PERI	Perico
POSR	Post-Reconstruction
POTA	Potano
PREA	Prehistoric - Aceramic**
PREC	Prehistoric - Ceramic**
PREH	Prehistoric - Unspecified**
RECO	Reconstruction
SAFE	Safety Harbor
SEMI	Seminole
SJ	St. Johns
SJ1	St. Johns I
SJ1A	St. Johns IA
SJ1B	St. Johns IB
SJ2	St. Johns II
SJ2A	St. Johns IIA
SJ2B	St. Johns IIB
SJ2C	St. Johns IIC
SP16	First Spanish 1500-1599
SP17	First Spanish 1600-1699
SP18	First Spanish 1700-1763
SPAW	Spanish - American War
SPN	Spanish
SPN1	Spanish - First Period
SPN2	Spanish - Second Period
SRSC	Santa Rosa - Swift Creek
STAU	St. Augustine
STPB	Statehood & Prebellum
SWF	Swift Creek
SWFE	Swift Creek - Early
SWFL	Swift Creek - Late
TRAN	Transitional
UNSP	Unspecified on form**
WE	Weeden Island
WE1	Weeden Island 1
WE2	Weeden Island 2
WE3	Weeden Island 3
WE4	Weeden Island 4
WE5	Weeden Island 5
WEI	Weeden Island I
WEII	Weeden Island II
WOD	Woodland**
WODE	Early Woodland**
WODL	Late Woodland**
WODM	Middle Woodland**
WW1A	World War 1 & Aftermath
WW2B	World War 2 & Aftermath

** - Coding is too vague or otherwise to be avoided when possible.