

**ARCHAEOLOGICAL SURVEY
FOR THE EXTENSION OF THE RUNWAY
AT PAGO PAGO INTERNATIONAL AIRPORT
TUALAUTA COUNTY, TUTUILA
AMERICAN SAMOA**

by

Paul L. Cleghorn, Ph.D.

Pacific Legacy, Incorporated
332 Uluniu Street
Kailua, Hawai'i 96734

October 1996

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Pacific Legacy, Incorporated
332 Uluniu Street
Kailua, Hawai'i 96734

prepared for:

Dames and Moore
1050 Queen Street, Suite 204
Honolulu, Hawai'i 96814

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ABSTRACT

Archaeological investigations were conducted at the Pago Pago International Airport as part of an Environmental Assessment for the proposed extension of Runway 5-23. The project involves the seeking of funds from the Federal Aviation Administration and is thus an "undertaking as defined in 36 CFR 800.2. As such the project is subject to the requirements of the National Historic Preservation Act of 1966, as amended.

The archaeological survey resulted in the recording of two archaeological sites, one of which appears to be a significant archaeological resource. This is a traditional star mound or *tia 'ave* that has the potential to yield information important to the prehistory of American Samoa (Criterion 'd'; 36 CFR 60.4 [d]).

Two alternative management recommendations are offered for the star mound: preservation in place (the preferred alternative), or data recovery.

1.0 INTRODUCTION

Pacific Legacy, Incorporated under contract to Dames & Moore, Inc., has completed archaeological consultant services for an Environmental Assessment (EA) for the proposed extension of the Pago Pago International Airport Runway. The Pago Pago International Airport is located on the south coast of Tutuila Island in American Samoa (Figure 1). Archaeological services consisted of: (1) completion of a review of previous archaeological research in the area; (2) meeting with governmental representatives from the Pago Pago International Airport, the Port Administration and the Historic Preservation Office; (3) a surface pedestrian survey of the project area; and (4) preparation of the report. This report presents the results of these investigations. Appendix A contains pertinent project correspondence.

1.1 RESEARCH DESIGN

The Port Administration of the American Samoa Government (ASG) is proposing to utilize federal funds from the Federal Aviation Administration (FAA) to make improvements to the runway at the Pago Pago International Airport. These proposed improvements consist of lengthening the existing Runway 5-23 by 1000 feet (ca. 305 m) to the west and extending the existing taxiway to this new runway terminus (Figure 2). The "area of potential effect" (APE) is approximately 19 ha (ca. 47 acres), and is entirely within the airport perimeter fence.

Given that federal funds are being pursued for this project and a federal agency (the FAA) is involved in the project, this project is an "undertaking" as defined in 36 CFR 800.2. As such this project is subject to the requirements of the National Historic Preservation Act of 1966, as amended. Specifically, these investigations are aimed at assisting the FAA to comply with Section 106 requirements.

The purpose of the archaeological investigations reported herein is to complete a cultural resources inventory to determine if there are any historic properties present in the project area that are listed in the National Register of Historic Places (NRHP) or are potentially eligible for listing on the NRHP.

Previous archaeological investigations in the vicinity (see section 3.0 below) have shown that the area may contain archaeological sites with Polynesian plainware pottery that has great antiquity. The finding of comparable sites in the project area would significantly add to our knowledge about this early period of Samoan prehistory. Other previous investigations resulted in the recording of numerous surface architectural features. Comparable data from the current project area would make important contributions to settlement pattern studies in the area.

The current investigations are conceived of as an initial inspection of the area. The ultimate goal of the investigations is to locate and document any archaeological

resources that may be present in the project area. The fulfillment of this goal will generate data that can be used to address larger research questions and issues relating to chronology, pattern of settlement, socio-political organization, and subsistence. The current investigations will thus follow a data generating approach.

The strategy for these investigations involves following two lines of inquiry: (1) reviewing previous archaeological investigations in the vicinity as a means of predicting what types of resources may be present; and (2) conducting an extensive surface survey of the entire project area.

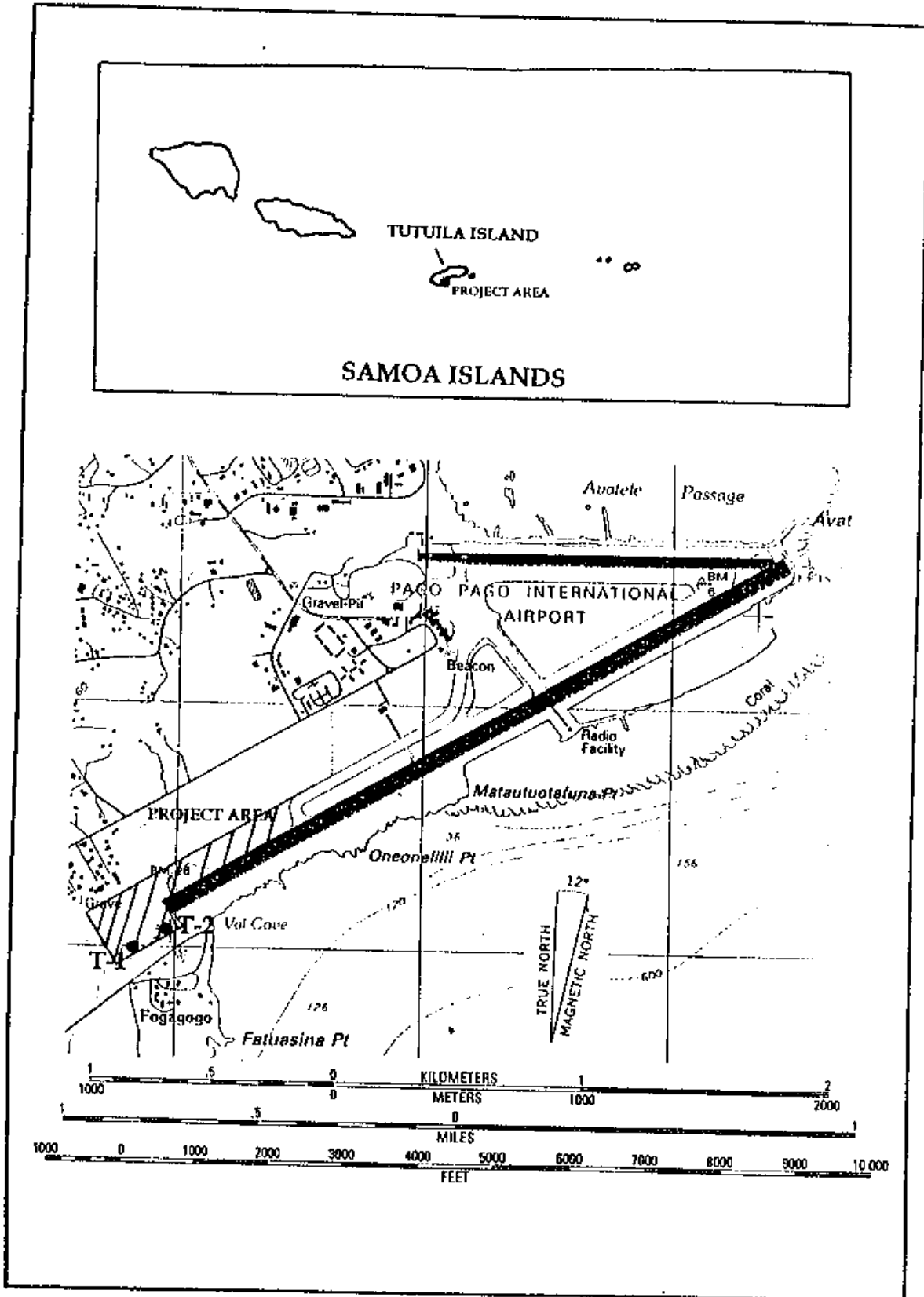


FIGURE 1. LOCATION OF PROJECT AREA

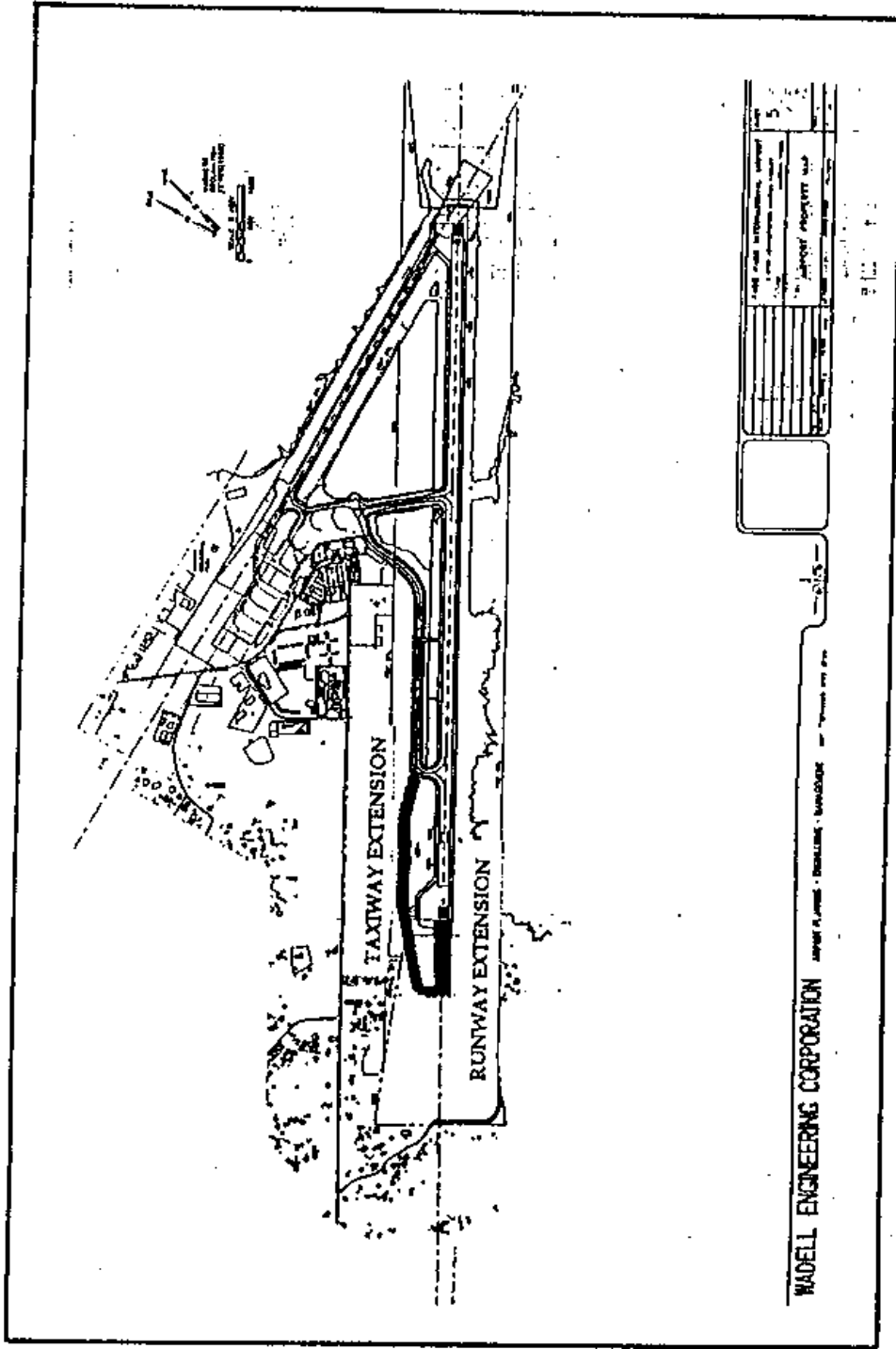


FIGURE 2. DETAIL OF AIRPORT PROJECT AREA

2.0 DESCRIPTION OF THE PROJECT AREA

The Pago Pago International Airport is located on the southern coast of Tutuila Island, within the county of Tualauta, between the Tafuna Plain and the Pacific Ocean. Tutuila is the largest island in American Samoa and measures approximately 32 km long (ca. 20 miles) and 1.2 to 9.7 km wide (ca. 0.75-6 miles) for a total land area of approximately 13,274 ha. (ca. 33,920 acres) (Nakamura 1984:1). Tutuila is an east-to-west oriented mountain range and the highest mountain peak on the island, Matafao at 2142 feet (ca. 653 m), is located NE of the project area. The land is generally quite steep from the ridge tops to the ocean, with many short streams and short valleys (Nakamura 1984:2). The Tafuna Plain makes up the largest area of relatively flat terrain on the island.

The Tafuna Plain is an aa lava formation produced by Holocene volcanic activity, however, there are no historic volcanic eruptions on Tutuila (Sterns 1944; cited in Shapiro and Cleghorn 1994:4). Soils of the Tafuna Plain are formed on young lava flows and exhibit minimal development with organic matter accumulated only in the surface layer (Nakamura 1984:58). The soils have been mapped as Troporthents on 0 to 6 percent slopes. Included in this mapping unit are small areas of Tafuna extremely stony muck; Iliili extremely stony mucky clay loam; Rock outcrop; and Urban land. The soils are well drained and consist primarily of a mixture of sand, gravel, cobbles, and some fine textured material. The underlying material is fragmented aa lava or bedrock (Nakamura 1984:25).

The climate of Tutuila is humid and warm. Rainfall data collected at Pago Pago International Airport between 1960 and 1980 indicate an annual average of ca. 125 inches (3,175 mm), with May through September being the driest months (Nakamura 1984:Table 1). Recorded temperatures (1964-1966) at the airport range from 74.1 degrees Fahrenheit to 86.8 degrees with an annual mean of 80.0 degrees (Nakamura 1984: Table 1).

Vegetation in the project area is primarily grasses and vines. The following trees are also present *Leucaena (lopa)*, *papata*, *Hibiscus* spp. (*fau*), *Zingiber* spp. (wild ginger), *Musa* spp. (banana), and *Morinda citrifolia*.

3.0 PREVIOUS ARCHAEOLOGY

The first systematic archaeological investigations on Tutuila were conducted by William Kikuchi (1963) as part of his Master's Thesis research. Kikuchi reported that there were eight platforms or mounds (*tia seu lupe*) located in Tafuna (1963:56-62). These *tia* are also referred to as "star mounds" because they generally have ray-like projections extending out from their centers. Star mounds were associated with Samoan chiefs who used them for the sport of pigeon catching. The mounds Kikuchi reported were made primarily of stone, but a few were made of dirt with stone retaining walls. They range in diameter from 7.3 to 18.3 meters. Kikuchi does not provide the exact locations of these sites and reports that two of them were destroyed prior to 1963. Kikuchi also mentions that the old abandoned village of Tafuna was located where the airport terminal building is now situated (1963:42).

Simon Best (1992) conducted a surface survey on the Tafuna Plain for the main line routes of the sewer system that has been recently constructed. Best recorded 13 archaeological sites consisting of nine stone mounds or terraces, two stone-faced earthen house-mounds, a stone wall, and a World War II-era coral road or taxiway. Best noted that all of these sites were partially destroyed as a result of residential development in the area (1992:28).

Most recently, William Shapiro (Shapiro and Cleghorn 1994) conducted an intensive archaeological program of surface survey and subsurface testing in the Tafuna Plain for the American Samoa Power Authority. Shovel test pits were excavated at 15 m intervals along all of the sewer line laterals in the sewer system. Eight archaeological sites were recorded. These included three terraces or platforms, two lithic and pottery scatters, and three multiple feature complexes. Pottery sherds were recovered from six of the eight sites that were investigated. These pottery sherds are associated with the Polynesian Plain Ware Assemblage that probably existed in Samoa between 300 B.C. and A.D. 300 (Shapiro and Cleghorn 1994:39-41; cf. Green 1974:248, and Kirch and Hunt 1993:1-3).

A meeting with Mr. David Herdrich, Deputy Historic Preservation Officer of American Samoa, revealed that there are no historic properties in the project area that have been listed or have been determined to be eligible for listing on the National Register of Historic Places.

4.0 METHODS

Fieldwork began with an orientation and overview of the project area by the Director of the Port Administration (Mr. Fepulea'i Sila Poasa) and the Airport Manager (Mr. Tuputala Sagapolutele). During this field visit the boundaries of the project area were delineated.

The archaeological survey consisted of making repeated pedestrian sweeps through the project area by the author and Mr. Liu Ameperosa (airport personnel). When an archaeological site was found, the immediate area was searched for additional sites and features. The site was then mapped with metric tape and compass, described, and photographed with 35 mm black-and-white film. Discovered sites were then plotted on a USGS topographic map.

5.0 RESULTS

During the orientation visit to the project area we noted a bulldozer in the project area and large bulldozed areas. Messrs. Poasa and Sagapolutele explained that periodic vegetation clearance in this area was necessary to maintain visibility between the control tower and navigational aids in the area west of the runway. This mechanical vegetation clearing transpires every few years.

Given the fact that repeated bulldozing takes place in the project area, the likelihood of surface archaeological sites being present seemed remote. It was thought, however, that the bulldozed areas should be closely inspected for charcoal staining, fire cracked rock, midden, etc. that would indicate the presence of subsurface deposits. In addition, the north and south fringes of the project area have larger trees, possibly indicating that these areas have not been subjected to bulldozing, and thus have the potential of containing surface archaeological sites.

All of the bulldozed areas were closely inspected. No traditional cultural materials were observed. Patches of crushed coral were observed which are probably fill material associated with the original construction of the runway.

The tree fringe on the north side of the project area contained no archaeological sites. Several small lava blisters are present, but none of those observed have any modifications or contain any cultural material.

Two archaeological sites are recorded in the tree fringe on the south side of the project area (Figure 1). These sites were marked with florescent pink flagging tape.

Site T-1. This site is a stone star mound (*tia`ave*). This structure measures ca. 31.0 by 24.0 m and ranges in height from 0.5 to 1.8 m (Figure 3). The northern side of this *tia`ave* is well faced (Figure 4) with three ray-like projections on the west side of the structure. The western-most ray is the most pronounced and extends about 8.0 m out from the main mound and rises ca. 1.5 m above the surrounding ground surface. The west side of this ray is partially collapsed revealing an inner earthen core. Cultural material on the surface of the structure include several coral pebbles and a single basalt flake that measures 55 by 84 by 16 mm thick (Figure 5).

The area immediately to the northwest of site T-1 shows evidence of bulldozing. The bulldozing stops within meters of the structure.

Site T-2. This site is a series of multiple stone alignments that cover an area approximately 60.0 by 22.0 m (Figure 6). The alignments are one stone course high and measure ca. 0.5 m wide (Figure 7). Two pieces of concrete, one rubber slipper, and a blue shirt hanging in a tree were observed. The site appears to have been a recent gardening area.

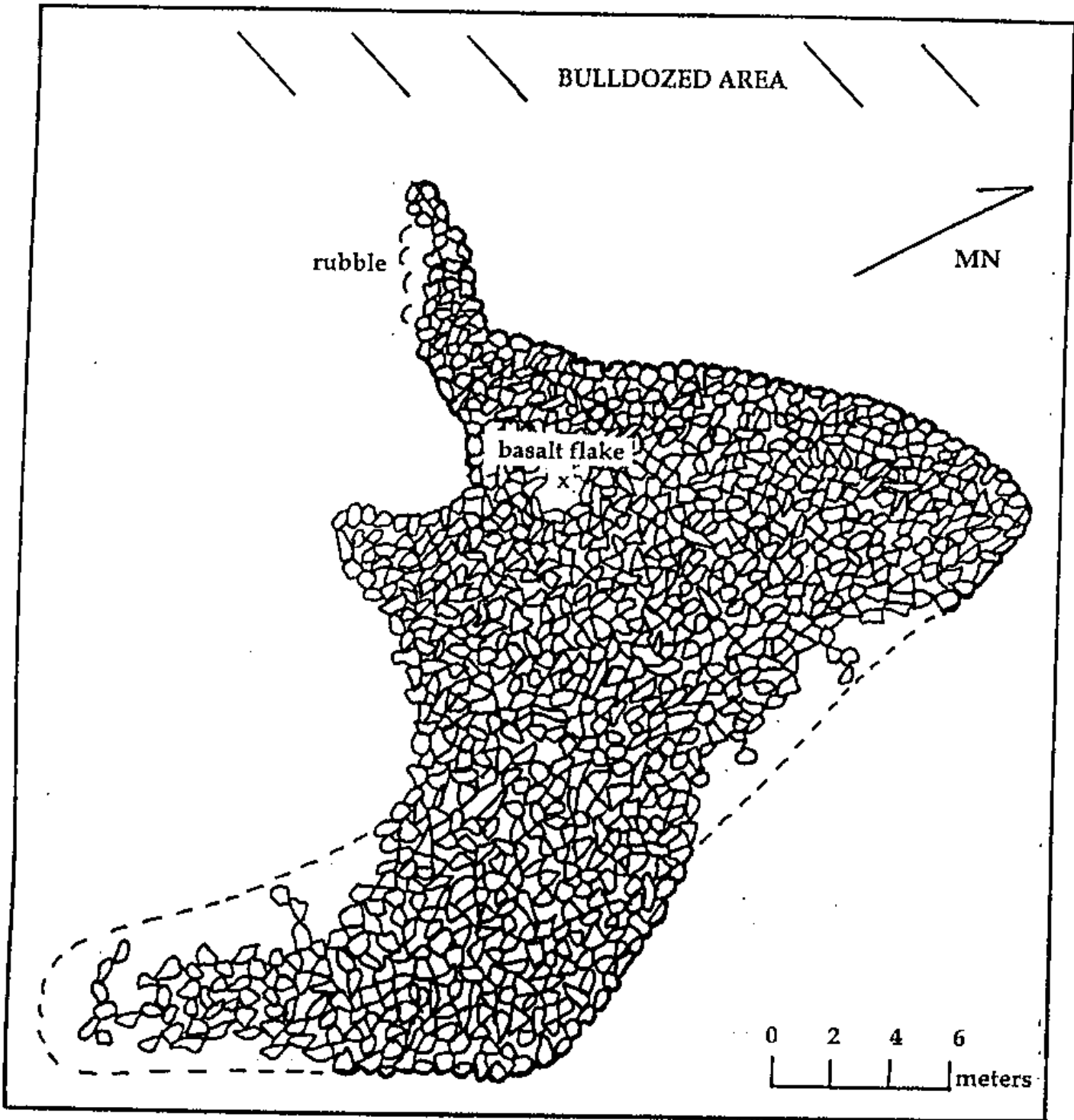


FIGURE 3. PLAN MAP OF SITE T-1



FIGURE 4. PHOTOGRAPH OF NORTH FACE OF SITE T-1

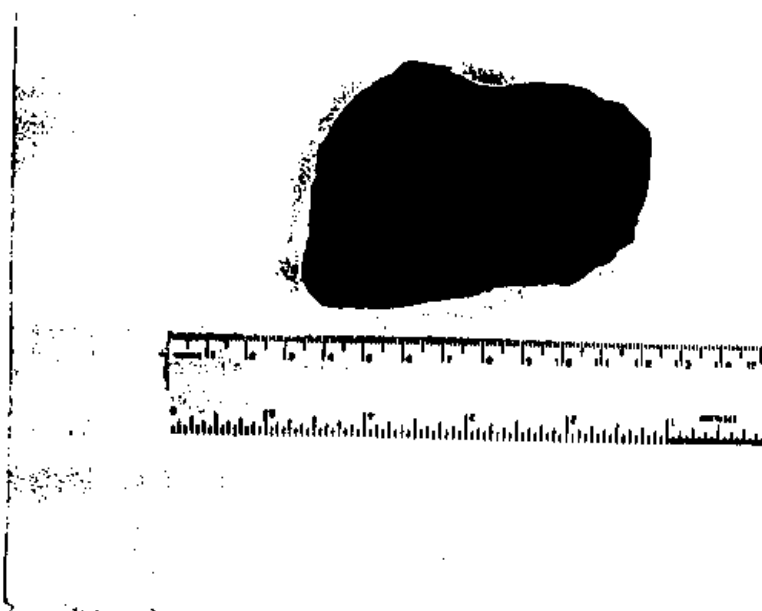


FIGURE 5. BASALT FLAKE FOUND ON THE SURFACE OF SITE T-1

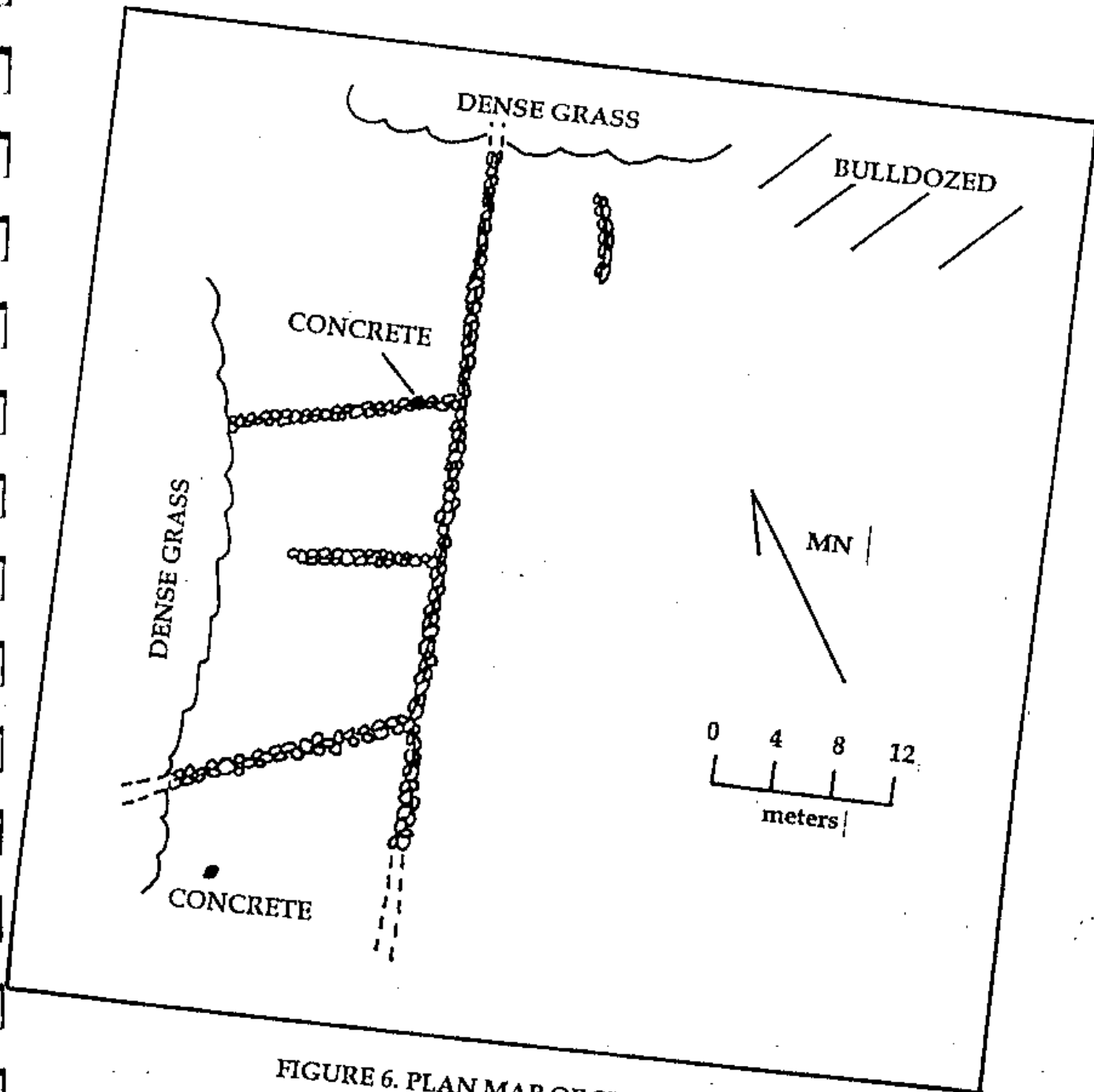


FIGURE 6. PLAN MAP OF SITE T-2



FIGURE 7. PHOTOGRAPH OF SITE T-2

6.0 SIGNIFICANCE AND MANAGEMENT RECOMMENDATIONS

The National Historic Preservation Act of 1966, as amended, authorizes the Secretary of the Interior to maintain and expand a National Register of Historic Places (NRHP) that identifies significant historic properties. A historic property can be a district, site, building, structure, or object. A property may be listed on the NRHP if it meets evaluation criteria defined at 36 CFR 60.4:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- (a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) That are associated with the lives of persons significant in our past; or
- (c) That embody the distinctive characteristics of a type, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) That have yielded, or may be likely to yield, information important in prehistory or history.

Properties that meet one or more of the above criteria and those properties already listed or determined eligible for listing on the NRHP must be considered in accordance with regulations of 36 CFR 800.4-800.6. Archaeological properties such as those recorded in the current project area typically qualify for listing under Criterion 'd' cited above. Undertakings that have the potential to have an effect on a NRHP eligible or listed property are subject to review and comment by the American Samoa Historic Preservation Officer and the Advisory Council on Historic Preservation.

The quality of integrity is also a criterion of NRHP eligibility for an archaeological property. The integrity of archaeological resources generally relate to location, setting, and data potential (e.g., stratigraphic integrity). The integrity of an archaeological resource may be compromised by cultural and post-depositional factors (e.g., airport construction, agricultural activities, urban development, erosion, etc.), and still retain its integrity for satisfying Criterion 'd'.

6.1 SIGNIFICANCE ASSESSMENTS

Site T-1. This site, a star mound or *tia`ave*, appears to be a significant archaeological resource because it has the potential to yield information important to the prehistory of American Samoa (Criterion 'd'; 36 CFR 60.4 [d]). This type of structure appears to have been a mound (*tia seu lupe*) that was used for the chiefly sport of pigeon catching. These types of structures may have had other more complex social and religious functions as well (Herdrich and Clark 1993:59-61). Research domains that can be addressed through the study of this site include chronology, settlement and subsistence systems, social organization, and ideology and religion.

Site T-2. This site is assessed to be not significant. This site appears to be a recent gardening area. It has been recorded and its location plotted on a USGS topographic map. No important information would be anticipated from further investigations.

6.2 ASSESSMENT OF EFFECT AND ADVERSE EFFECT

It appears that the proposed undertaking will have an "adverse effect" on Site T-1 as defined in 36 CFR 800.9 (b)(3):

(b) An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:

(2) Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;

(3) Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting.

Alternatively, there may be an exception to the criteria of adverse effect as defined in 36 CFR 800.9 (c) (1):

(c) Effects of an undertaking that would otherwise be found to be adverse may be considered as being not adverse for the purpose of these regulations:

(1) When the historic property is of value only for its potential contribution to archaeological, historical, or architectural research, and when such value can be substantially preserved through the conduct

of appropriate research, and such research is conducted with applicable professional standards and guidelines.

A Memorandum of Agreement (MOA) needs to be executed between the federal agency and the American Samoa Historic Preservation Officer; the Advisory Council on Historic Preservation must also sign this MOA. In the MOA a determination of adverse effect (or an exception to the criteria of adverse effect) must be agreed to and appropriate mitigation measures need to be developed. The following section (6.3) outlines various mitigation options as management recommendations.

6.3 MANAGEMENT RECOMMENDATIONS

Two management alternatives can be pursued with regard to Site T-1. The preferred alternative for site T-1 is to preserve this structure in place. Site T-1 appears to be located just south of the runway alignment and would be situated within the grass apron that will border the runway extension. At a minimum, this site should be hand cleared of vegetation, mapped in detail, and photographed. The collapsing walls should be stabilized, using traditional dry masonry techniques, so that site deterioration is arrested. Prior to construction activities, the site should be surrounded by temporary protective fencing so that it will not be damaged. By following this management alternative, the adverse effect determination can be mitigated.

If this preferred alternative is followed, the American Samoa Historic Preservation Office has stated (see 29 March 1996 letter by Julie Endicott in Appendix A) that the project still "significantly changes the setting of the site." They recommend a mitigation measure of developing a public outreach of an informational sign and photograph at the airport, paid for through project funds.

The other alternative is to determine that there is an exception to the criteria of adverse effect, because the historic property' value is only for its informational content. This information would be retrieved by conducting data recovery operations at the site. These data recovery operations should include detailed mapping, extensive excavations, laboratory analyses, radiocarbon dating, and other studies as appropriate. This alternative would be more costly than the one described above.

No further work appears to be necessary at Site T-2.

7.0 REFERENCES CITED

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APPENDIX A.
PROJECT CORRESPONDENCE



AMERICAN SAMOA GOVERNMENT
PAGO PAGO, AMERICAN SAMOA 98798
DEPARTMENT OF PARKS AND RECREATION
American Samoa Historic Preservation Office
684-699-9513
Fax: 684-699-4427

In reply refer to:

April 10, 1996

TO: PAUL CLEGHORN, Pacific Legacy
FAX: (808) 263-4300

FROM: JULIE ENDICOTT, Archaeologist
Page 1 of 1

RE: Determination of Historic Property

Paul -

Hi there. I spoke with Dave and he says that this letter stating that the mound is an historic property should come from the FAA. It should state that they have determined that the site is an historic property, and that the report should be consulted for further details. This can be in the same cover letter to the report stating that the project is an undertaking and delineating the project area, and therefore they only need to write one letter. I hope this finds you well, and that they are forthcoming with the letter.

A handwritten signature in black ink, appearing to read "Julie", with a long horizontal line underneath.



AMERICAN SAMOA GOVERNMENT
PAGO PAGO, AMERICAN SAMOA 96799
DEPARTMENT OF PARKS AND RECREATION
American Samoa Historic Preservation Office

In reply refer to:

167-96

July 12, 1996

Mr. Daniel S. Matsumoto
U.S. Department of Transportation
Federal Aviation Administration
Wester-Pacific Region Airports District Office
Box 50244
Honolulu, HI 96850-0001

Dear Mr. Matsumoto,

I am writing in response to your letter of May 14, 1996, and the Draft Environmental Assessment produced by Dames & Moore regarding the PagoPago International Airport Runway and Taxiway Extension project. Thank you for your statement of undertaking.

In your letter you request our determination for any sites affected by this project of eligibility for the National Register of Historic Places. However, according to 36 CFR 800.4(c), that determination is the responsibility of the Federal Agency Official. In addition, 36 CFR 800.4(e) states that the Agency Official is also to make the determination of effect. The Historic Preservation Officer then has the opportunity to comment on these determinations. In the event of a consensus of an adverse effect determination, a Memorandum of Agreement (MOA) is drawn up between the Agency and the HPO in which mitigation measures are agreed to. (This agreement must be signed by the Advisory Council on Historic Preservation; the ACHP is also sometimes involved in three-party MOAs.)

Assuming that the star mound located near the runway is determined eligible for nomination to the National Register, several issues regarding the effect of this project on the site were raised by both the archaeological report and the Environmental Assessment (EA). Both the report by Pacific Legacy, Inc., (Appendix C in the Dames & Moore report, Enclosure 2 to your letter) and the EA state that if the management recommendations made in the archaeological report are followed, a "no-adverse effect determination" can be made. However, it does not appear that the EA adequately considered the criteria of effect and

adverse effect (36 CFR 800.9(b)(2) and (3)) which state that adverse effects on historic properties include "isolation from or alteration of the character of the property's setting ..." and "the introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting", respectively. In addition, as outlined above, the regulations state that only after an adverse effect determination is made can an MOA outlining the agreed upon mitigation measures be completed. These measures might involve any of the options suggested in the EA, in this case we anticipate concurring with the suggested mitigation of detailed mapping and photography, stabilization, a protective fence, and an informational sign at the airport. Excavations are sometimes chosen as a mitigation option, but are not required.

We have some concerns regarding activities related to the construction of the runway and taxiway that were not addressed in the archaeological report. During the pre-bid meeting for this project, there was discussion about staging areas and roads for access to the runway by the construction equipment. This was not addressed in the archaeological report, and indeed the "project area" discussed in this report is limited to the area that will be occupied by the runway extension and taxiway. The tree fringe around this area was surveyed but only to a limited extent (not specified in the report); areas beyond the runway and taxiway extensions are likely to be affected by these activities and may contain archaeological remains that have not yet been identified. In addition, the introduction to the EA (Chapter 2) makes statements about a sewerline that will underlie the runway that may need to be relocated or strengthened, stormwater drainage systems that will need to be extended to reach the project area, and the lighting system that will need to be extended and replaced with countersunk fixtures. Any and all of these actions will require additional archaeological survey to identify cultural resources that may be affected by these activities. All of these activities, and indeed any future development that takes place as a result of this runway extension (as discussed in the EA), should have been included within the Area of Potential Effect for this project. The Area of Potential Effect (APE) for any project is broadly defined in the regulations as "the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties..." [36 CFR 800.2(c)] and has been taken to refer to added incentive for local business development. In the EA a reference to a broad APE is made in the section discussing the star mound by the statement that "construction activity could have a negative impact on the site" (p. 4-16) and the discussion of possible future economic development of the area (Chapter 3). While some of these ground disturbing activities may be done at a local level and not be directly funded by this project (for example, moving the sewer line), Section 110(a)(2)(d)(1)(iii)(F)

holds the Federal Agency responsible for "[s]econdary or indirect impacts resulting from associated activities induced or promoted by the proposed action on the property."

We anticipate concurring with a determination for the star mound of eligibility for the National Register of Historic Places and look forward to reviewing your determination of effect. We also look forward to working with you in the future to identify other historic properties that may be affected by this project and working out mitigation of those effects.

Sincerely,



John Enright
Historic Preservation Officer

cc: Mr. Sila Poasa, Dept. of Port Administration
George Krasnick, Dames & Moore
Paul Cleghorn, Pacific Legacy, Inc.



AMERICAN SAMOA GOVERNMENT
PAGO PAGO, AMERICAN SAMOA 96799
DEPARTMENT OF PARKS AND RECREATION
American Samoa Historic Preservation Office

In reply refer to:

March 29, 1996

Paul L. Cleghorn, Ph.D.
Pacific Legacy, Inc.
216 Ku'uhale St.
Kailua, HA 96734

Re: Draft Archaeological report for the PagoPago Airport Extension Project

Dear Paul,

I do not know if Pat has told you that I have moved, but I am writing to you in my new capacity as Archaeologist in this office. David Herdrich asked me to review the report that you sent to us; the review follows. I attended a meeting here on Wednesday regarding the Environmental Assessment by Dames and Moore, of which this report was a part. I hope that this reaches you in a timely manner such that changes or clarifications can be included in the final EA. I know that the plan is to have the final version in three weeks, so I will fax this to you as well as sending a copy via the mail.

Thank you for the opportunity to review the report *Archaeological Survey for the extension of the runway at PagoPago International Airport Tualauta County, Tutuila, American Samoa*. The report has been reviewed using the *American Samoa Historic Preservation Cultural Resource Investigations - Report Guidelines* as the review standard. The report is generally of a high standard and professional quality, but we do have a number of comments, which follow:

- We are asking that all reports have both a cover page and a title page. This report basically requires the addition of a cover page. The cover page should include the title of the report and the author, with organization affiliation, address, etc.

- The *Guidelines* also require the following elements in all reports filed with this office:

- 1) An Abstract summarizing the background and purpose of the investigation, the methods employed, the results and the recommendations.
- 2) A Research Design, describing the purpose of the investigation with reference to compliance with Section 106, the relevance of the investigation in terms of Territorial and regional research goals, the theoretical orientation of the investigation, the research strategy and justification for this strategy. In addition, the Research Design section should also include a discussion of hypotheses and implications tested by the investigation and assess its strengths and limitations. Section 1.1 "Description of the Undertaking" covers many of these points, but we would appreciate inclusion of the remainder.
- 3) An appendix containing copies of all project correspondence. We are currently evaluating the value of requiring ASHPO site/feature survey record forms as an appendix and would appreciate any comments you would have on such a requirement. We will most likely require that some such form(s) be filed with this office in the future to standardize as much as possible the information available about recorded sites.

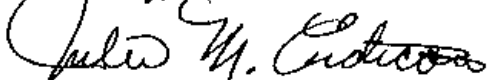
In regard to issues of correspondance, we will need a letter stating that this project is an undertaking as defined by Section 106, and for the final report we need a letter stating that the star mound is historic property, what the effect is citing the appropriate regulations. If there is to be a non-adverse effect determination, the steps that are to be taken to protect the site should be noted. We are of the opinion that the runway extension significantly changes the setting of the site and will further isolate it. Some public outreach such as an informational sign with photo at the airport paid for by the contractor would address this problem. The report recommends at minimum intensive mapping and the stabilization of walls. We would like to have photos taken of the site as well. We also require further information on the details of what such "stabilization" entails.

The remaining comments are in reference to content:

- p. 4: "...Samoa chiefs that..." should read "who"
- p. 6: "The tree finge...contain..." should read "contained" to be consistent with the tense used elsewhere.
 - "...8.0 m out of the main mound and raises..." should read "rises"
 - "Cultural material...include..." should read "included", again to be consistent with the tense.
- p.11: In two places on this page the Samoan word "tui" appears where the word should be "tia". Please also note that this error was used in the body of the EA, on p. 4-13: (tui'ave) should be (tia 'ave).

Thank you for your time and attention. I hope that you find these comments useful and constructive. If you have any questions please do not hesitate to call me at (684) 699-9513 or (684) 699-4427 (fax).

Sincerely,



Julie M. Endicott
Archaeologist

Encl.

ATTACHMENT D

CULTURAL RESOURCE INVESTIGATIONS - REPORT GUIDELINES

INTRODUCTION

The following is intended to serve as a guide for structuring survey, evaluation, and mitigation reports of cultural resource investigations conducted in American Samoa in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. Though all elements of the outline must be included in every report, the level of detail in particular sections may vary with the level of the investigation.

REPORT OUTLINE

- I Cover Page
- II Title Page
- III Abstract
- IV Table of Contents (Include lists of figures, tables, and plates.)
- V Introduction
- VI Environmental Setting
- VII Historical and Prohistoric Background
- VIII Research Design
- IX Methods
- X Findings
- XI Conclusion
- XII References Cited
- XIII Appendices

REPORT CONTENTS

- I Cover Page
 - A. Title of report including name and location of area(s) of potential effect(s).
 - B. Author(s)/Principal Investigator(s), organizational affiliation, address, and phone number.
- II Title Page
 - A. Title of report including name and location of area(s) of potential effect(s).
 - B. Author(s)/Principal Investigator(s), organizational affiliation, address, and phone number.
 - C. Name, address, and phone number of client.

- D. Lead Federal/ASG agency and contract/permit numbers.
- E. Date of Report.

III Abstract

- A. Summarize the investigation's background and purpose
- B. Summarize the methods employed
- C. Summarize the results of the investigation
- D. Summarize the recommendations

IV Table of Contents

V Introduction

- A. Give project background.
- B. Identify the dates of the investigation and identify the principal investigator and supervisory personnel and give their qualifications.
- C. Describe the area of potential effect (project area) including a depiction of the area on an appropriate USGS quad.
 - D. Describe the purpose of investigation (compliance with Section 106)
 - E. Describe the scope of work.
 - F. Summarize the results of the investigation.
 - G. Identify the disposition of field notes, artifacts, and other associated documents.

VI Environmental Setting

Present a detailed environmental description of the project area focusing on its resource utilization potential and factors affecting the preservation of archaeological sites. Environmental reconstruction should include a discussion of how the ecological methods and techniques and data generated by prior studies were or may be used to model past environments.

- A. Describe what is known of local and regional Pleistocene and Holocene

environments and environmental processes.

- B. Describe the current environmental setting including: topography, soils, hydrology, geomorphology, geology, and biota.
- C. Assess the past and present land use and resource potential of the project area.

VII Historical and Prehistoric Background

Summarize what is known of the history and prehistory of the project area and its vicinity by reference to all relevant prior studies, available records, and informant interviews. The background should be of adequate scope to provide a context within which the historic properties previously documented and newly identified in the area of potential effect can be considered and the prior investigations evaluated.

- A. Describe what is known of the prehistory of the project area.
- B. Describe what is known of the history of the project area.
- C. Describe all previously documented historic properties within one kilometer of the boundaries of the area of potential effect.
- D. Discuss the distribution and temporal affiliation of previously identified historic properties.
- E. Discuss past and present land use in the project area.
- F. Assess the cultural resource potential of the project area.

VII Research Design

- A. Describe the purpose of the investigation with reference to compliance with Section 106.
- B. Describe the relevance of the investigation in terms of Territorial and regional research goals.
- C. Describe and justify the theoretical orientation of the investigation.
- D. Discuss the hypotheses and implications tested.
- E. Describe and justify the research strategy.

- F. Assess the strengths and limitations of the investigation.

IX Methods

Present a detailed description and evaluation of the field and laboratory methods and analytical procedures used in the investigation in terms of the research design. Discuss problems encountered in implementing the research strategy and their resolution. Describe and justify any modifications to the research design. Include samples of field and laboratory forms, photographs of work in progress, maps of areas investigated by various methods.

- A. Describe and justify all field methods. Include scaled location maps of all investigative units.
- B. Describe and justify all laboratory methods and special analyses.
- C. Describe and justify data collection and management procedures.
- D. Describe in detail all constraints on the investigation, e.g., limited access and poor visibility.
- E. Assess the adequacy of the methods employed in terms of the research objectives.

X Findings

Present a detailed description of the information collected and the data derived during the investigation

- A. Describe verbally and cartographically all historic properties identified in the area of investigation. Present, at a minimum, the following information for each property and each component feature in the body of the report:
 1. Site/feature number;
 2. Horizontal and vertical dimensions;
 3. A measured plan of each site and component feature - include locations of all investigative units, disturbance, topography, vegetation, soils, geological features, and section and elevation drawings, where appropriate;
 4. Site/feature setting, e.g., soils, topography, vegetation -
 5. Present site condition and integrity;

ASHPO REPORT GUIDELINES

6. Formal site type; and
 7. Functional and temporal interpretation and cultural affiliation.
- B. Describe the results of each investigative and analytical method categorized by site, feature, and investigative unit. Include, at a minimum:
1. An inventory of all recovered material - include drawings and photographs when appropriate; and
 2. The results of the analysis of each class of recovered material and data categorized by analytical method and investigative unit;
- C. Include complete, updated American Samoa Site/Feature Survey Forms for all historic properties in the project area as an unattached appendix. These forms must incorporate the results of the reported investigation. No report will be accepted for review by the ASHPO unless these forms, including maps and drawings, are submitted with the report.

A. Project correspondence.

B. ASHPO Site/feature survey record forms including all maps and drawings.

C. Transcripts of all informant interviews.

XI Conclusion

- A. Evaluate the effectiveness of the investigation in terms of the scope of work and local and regional research objectives.
- B. Summarize and interpret the findings.
- C. Evaluate each historic property with reference to eligibility criteria for inclusion on the National Register of Historic Places. (Other evaluation criteria may be employed to assess the significance of each property but not at the exclusion of National Register criteria.)
- D. Make recommendations for any necessary additional investigations or mitigative measures at each property based on National Register eligibility and proposed project effects.

XII References Cited.

XIII Appendices